



**DEPARTMENT OF GEOLOGY NEWSLETTER
COLLEGE OF ARTS AND SCIENCES
WESTERN MICHIGAN UNIVERSITY
KALAMAZOO, MI 49008**

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Greetings---

We are enjoying an absolutely beautiful fall here in Kalamazoo. As I have mentioned in previous letters, the campus now has a "park-like" quality. The many improvements in the physical layout of streets and roads has been enhanced by Landscape Services who have planted a large number of chrysanthemums in strategic places. Those of you who have had the opportunity to visit campus recently will understand about the "physical changes." The road between Henry and Sangren Halls has been removed; the west end of the parking lot between Sangren and Kanley Chapel has been made into a plaza, replete with six flag poles and a large tent-like white canopy emblazoned with a brown and gold "Western Michigan University"; and several new sidewalks have taken the place of muddy student paths. If you haven't been to campus in awhile, I urge you to visit, and let us know so we can show you around. You will find navigating on campus to be challenging.

An architect has been selected for the new "science pavilion," and we should begin the detailed review and planning for the new facility which will be dominantly laboratories and for the "retrofit" of Wood Hall in the very near future. Last fall I said that the new structure would probably be located in the Wood Hall parking lot; although that is still an option, the preferred location now seems to be between Wood Hall and Everett Tower. It has been suggested that Wood and Everett could be linked through the new building to form a science, math and computer science complex that would have virtually all of these areas, including some chemistry research labs. We are bracing for a period of intense activity, but are very optimistic about having new offices, laboratories and teaching facilities.

Our Department will host the North-Central Sectional meeting of the Geological Society of America the last week of April. Dr. Alan Kehew is the general chairperson of this meeting and Dr. Ronald Chase is the program chair. We expect an attendance of 500 to 700 and hope that you may be able to attend. Most of the seven concurrent sessions will be held in the Fetzer Business Center with two or three sessions being in Wood Hall. We plan to couple this meeting with the "Second Annual Department of Geology Field Day." Last May, Mr. Richie Laton set up the "First" in this series and it was very well received. We hope that coupling these events will augment both of them.

Drs. Alan Kehew and Christopher Schmidt have returned from sabbatical and Dr. David Barnes is now spending his time studying the coast instead of in the classroom. From all accounts Alan and Chris had very enjoyable and worthwhile sabbaticals. Please read their personal comments for a more detailed view of their experiences.

Our equipment base continues to grow. We now have a very strong computer base with each faculty member having an office computer. We are acquiring the equipment to set up a PC lab with 16 computers and a Macintosh lab with 4 computers which will include a computer and peripheral. Dr. Schmidt acquired on a grant from the Computer Center. In the past year we have also acquired several boats, outboard engines, trucks, and tools through the government surplus system. The coastal area equipment base has been further strengthened by the addition of a new total station that permits very rapid and accurate surveying.

All in all it has been a very exciting year, and the remainder of the 1993-94 academic year looks to be equally exciting.

Best wishes,

W. Thomas Straw
Professor and Chair

DEPARTMENT OF GEOLOGY NEWSLETTER

FACULTY NEWS

ESTELLA ATEKWANA ASSISTANT PROFESSOR

Yes, this has been a very busy year indeed. During the past year I taught courses in physical geology and introduction to geophysics. I co-authored a paper on mapping bedrock topography using an integrated geophysical approach which was presented at the Michigan Academy of Science last winter. I also authored another paper on the Kapuskasing Structural Zone to be published in the *Canadian Journal of Earth Sciences* this winter.

The months of July, August, September, and October were spent conducting seismic surveys in the Donnell Lake area, Cass County, as part of an ongoing aquifer vulnerability study. Geosoft, our potential field mapping software system, is up and running and getting a lot of use from the geophysics faculty and students. The geophysics group is also the proud owner of three "new" gravimeters, 1 Lacoste and Romberg meter and 2 Wordens.

On the home front, Eliot and I are the proud parents of a new baby girl, Kyra Anwi, born March 12, 1993. Kyle is a big brother now and growing to be a big boy.

DAVID A. BARNES ASSOCIATE PROFESSOR

Dave Barnes sends his best wishes to all old friends. School year 1993-94 (actually April 23, 1993 until August 29, 1994, ugh!) is my sabbatical year and it couldn't be more appropriate. I have undertaken a well-insulated career change and have thrown myself headlong into the Coastal Geology of the Great Lakes with an emphasis on coastal change studies and coastal monitoring. We have a sturdy group of graduate students (Mike Kovacich, Dave Seng, Bill Montgomery) and undergrads enthusiastically taking part in the program. The summer of 1993 was my first full summer of coastal field work and we spent time on both Lake Michigan (Duck Lake area, Manistee, Little Sable Point, and St. Joe) and Lake Huron (Sanilac County) mostly surveying and collecting other data pertinent to coastal change analysis. Other aspects of coastal Geology that we hope to bring up to speed include the surficial geology of the east coast of Lake Michigan and the initiation of a coastal change study program based on GIS techniques.

The Detroit District Army Corps of Engineers has hired me to participate in their GIS analysis of coastal recession during this sabbatical year and we hope to parlay this connection into a Department-based GIS program. The assistance and cooperation of the Corps in these activities is a real bright light for the Coastal Geology program.

The North Central section meeting of the GSA will be in Kalamazoo next April and Department Coastal Geologists hope to have a strong presence. Plan on attendance if you can and take part in our field trip to get a flavor of the "other" kind of Environmental Geology going on at Western these days!

RONALD B. CHASE PROFESSOR

Ron wishes to say HI to all former students. His courses remain the same, the good old Optical Mineralogy-Petrology sequence that many of you may remember, plus occasional other courses. Ron still enjoys teaching as much as ever, and is particularly proud of the Field Studies course in the Upper Peninsula that keeps evolving though the years.

On the research end, Ron finally saw the publication of Geological Society of America Special Paper 280 (Laramide Basement Deformation in the Rocky Mountain Foreland of the Western United States) which he co-edited with Chris Schmidt and Eric Erslev (Colorado State University). He is now moving into three research areas: continued work on basement-cored uplifts in the Rocky Mountains, isotopic studies of potentially thrust Cretaceous granitic plutons in northern Idaho and western Montana, and bluff failure mechanisms along the Lake Michigan shoreline. Grant proposals have been written or are in progress.

On the personal side, Ron remains the proud father of four college students and continues to appreciate the huge contribution to his well-being provided by a very patient wife, Chris. All boys are now out of the house and the empty nest syndrome prevails. Karl is an occasional hydrogeology major in our Department, Andy is about to graduate from Northwestern University and become a world famous sports writer, Scott is a sophomore pre-med major and football captain at Washington University (St. Louis), and Jamie is a freshman math major and varsity swimmer at Wesleyan University (Conn). Ron feels funny not attending virtually every high school sporting event in Kalamazoo County. That spare time now seems to be spent in the office.

JOHN D. GRACE PROFESSOR

As in the previous few years, I can report yet again that the department seems to be ever expanding and we now have approximately 180 undergraduates - an all time record. The new Hydrogeology programs are particularly popular with a total of about 70 students. Earth Science Teaching has also become a very popular major. We're going to need all the help we can get if we are going to find all these potential graduates employment. So if you hear of any job openings, be sure to let the Department know.

I enjoyed meeting with a number of Department alumni at the National GSA Meeting in Cincinnati a year ago. Julie Stein from University of Washington should get the long distance travel award as far as our alumni in attendance at the meeting. Unfortunately, I will not be able to get to the Boston GSA Meeting. Maybe next year!

I hope to be on sabbatical leave next year and spend some time at Argonne National Laboratory. I plan to gain additional experi-

FACULTY NEWS (CONT.)

ence in the area of clay minerals analysis which should be of benefit to the environmental emphasis the Department has now adopted.

On the home front my wife keeps quite busy with her business and we both have a hard time keeping up with two grandkids that are growing like weeds.

DUANE HAMPTON ASSISTANT PROFESSOR

Last year was my busiest ever for advising students, both graduate and undergraduate, and teaching. I also was awarded a third year of EPA support of my research on free product spill monitoring and remediation. I made several weekend trips to Carson City, Michigan, where I am doing a field study of oil recovery wells. We have found that gravel pack design plays an important role in free product wells. I presented three papers this spring, two with former MS students as co-authors.

Since my EPA grant recently ran out, I have been seeking support for additional field studies in hydrocarbon spill removal. My goal is to test the hydrophobic gravel packs we have used successfully with wells and see if they will similarly enhance the performance of hydrocarbon interceptor trenches. While trenches are useful only in shallow, unconsolidated water table aquifers, in such settings they usually do better than wells. However, I believe trenches can be built better, cheaper and faster to recover more oil. It appears that one west Michigan firm has already found a client willing to experiment with using this idea. I am anxious to carry out more than one field test. Please let me know your ideas on this.

I recently gained perspective on why I teach the way I do. I teach hydrogeology classes, primarily comprised of graduate students. I have always given tests that require students to think and learn. In class I ask many questions and try to engage students in the thinking process. We reason together. Sometimes I ask questions before I know the answer, not only in class but occasionally on tests. I recently heard teachers of gifted and talented elementary school students talk about the attributes of the kids they teach (the top 5%) and how they try to reach them. It dawned on me that I was doing similar things with older gifted and talented students. After all, that is what graduate students are, as well as many of our undergraduates. I love the learning process, and I love the scientific method in research. I hope some of my enthusiasm for both rubs off on those whom I contact.

ALAN KEHEW PROFESSOR

I am sorry to report to you that I am suffering from a serious case of PSDS (Post Sabbatical Depression Syndrome) this year. My Sabbatical last year was such a pleasant experience that it has really been hard to get back into the old routine. I used the time to work on several research projects. One study is the project that Dick Passero and I have been working on in Cass County. This project is an analysis of a ground-water flow system that has been impacted by agricultural fertilizers and hog raising. The overall purpose is

to test current well-head protection strategies in a hydrogeologic setting of this type. For some reason, we seem to do most of our field work on this project in the winter, and last year was no exception. Part of the work involved installing piezometers through the ice in a small lake in the study area.

Another major focus of my Sabbatical was the IGCP (International Geologic Correlation Project) that I have been involved in. The overall project is entitled "Termination of the Pleistocene" and our North American work group is conducting a subproject called "History and Drainage of Large Ice-Dammed Lakes." My interest has been in the catastrophic drainage of these lakes all along the southern margin of the Laurentide Ice Sheet. I gave two papers on this topic last year at the annual GSA meeting in Cincinnati and also participated in a conference for the entire project in Winnipeg, Manitoba, last summer. I gave a paper there and helped lead an international group on a 5-day field trip from Winnipeg to Banff. The IGCP project is now finishing up with a planned special issue of *Quaternary Science Reviews*, of which I am a co-editor.

A third project that I worked on during Sabbatical was a study of lead corrosion in the Grand Rapids municipal water system. This project, which was headed by Mike Barcelona in the Institute for Water Sciences, was a lab study designed to test the effects of various water-quality treatment options with respect to their ability to minimize corrosion of lead, copper, and brass "coupons" that were kept in contact with water from the treatment plant for varying lengths of time. Variables in the study included pH and additions of corrosion inhibitors such as orthophosphate and blended polyphosphate.

In my "spare" time, I have been revising my geology for engineers textbook for a second edition due out sometime next year. The title is *Geology for Engineers and Environmental Scientists*.

The family is doing well. Kay has cut back to part time work as staff development coordinator at a local nursing home. It seems to make life a little easier when only one of us is an over-stressed, cantankerous person most of the time. Our twins are 24 years old. Missy works as a nanny in Freeport, Maine, and Michelle does similar work here. Michelle got married last summer to a guy who just graduated from Western in industrial design. Hopefully, they won't make me a grandfather for a few more years yet. Liz is 9 years old and enjoys piano lessons, among other activities.

WILLIAM A. SAUCK SENIOR RESEARCH ASSOCIATE

The year began with teaching Electrical Methods (GLG563) during winter term. Field projects early in the year included doing Ground Penetrating Radar (GPR) on ice over wetlands and ponds, as well as testing it in snow conditions at Duane Hampton's Carson City refinery research site. The work on ice was very successful in mapping the hard bottom below considerable thicknesses of organic muck. After reaching my limit of cold fingers and toes, I took the GPR to the Yucatan to help some archaeologist friends at the central plaza of Chichen Itza for a week, where I found the working environment much more to my liking at that time of the year. An unplanned trip from Merida to the port of Progreso on the northern coast to see a certain customs official to liberate the GPR equipment

FACULTY NEWS (CONT.)

took me past the village of Chicxulub. This is also the name of the giant impact crater created at the end of the Cretaceous which is centered at this village. (There is no surface evidence because of the cover of Tertiary limestone.) Back in Kalamazoo, I helped organize two more Groundwater Professional's Forums, held at the Fetzer Center. Later in the Spring we had a Schlumberger well logging crew test their geophysical logging tools in two wells on the Asylum Lake property. This was to test the feasibility of downsizing some of their equipment for use in the ground water environment.

Early summer brought the third field season of the project using GPR to map sand distribution in the nearshore of southeast Lake Michigan for the USGS and US Army Corps of Engineers. With a new submersible GPR antenna built at WMU and with an experienced crew of Dave Seng and Robbie Zenero, we were able to do a lot of survey lines between Benton Harbor and Gary, IN. We also had an interesting encounter with WMU grad Ron Erickson offshore from St. Joseph. We on our 21' Monark work boat, and he on a Corps of Engineers crane barge and tug. The summer field season came to a halt with teaching the geophysics module for both sessions of the hydrogeology field course. That was followed immediately by one month in northern Brazil, most of the time at INPA, the National Institute for Amazonian Research, and a few days in Belém (where I crossed paths with Elen and the children). Five days after returning, I was off to Lake Erie with Dave Seng and the GPR for a week. This project was to help the Corps of Engineers assess the utility of using GPR to locate UXOs (that's "unexploded ordnance") scattered over many square miles of bottom, offshore from a firing range at Camp Perry. Indian summer in October allowed a week of shallow seismic work with Estella Atakwana and Steve Bahling on the Cass Co. project.

All told, it was a year of "challenging" field areas: dodging 300 lb hogs and their effluent in Passero's Cass Co. project; dealing with the noxious volatiles at Hampton's refinery plume; gambling with the weather far from port on L. Michigan; and trying to avoid hitting the prop on the bottom in an active gunnery range while working the shoals of L. Erie. The Mexico work wins hands down in being least stressful.

CHRISTOPHER J. SCHMIDT PROFESSOR

Dr. Schmidt spent the 1992-93 academic year on sabbatical. Most of the Fall semester he was associated with the Geology Department at Cornell University giving talks, consulting with faculty and graduate students who are working in Argentina, and using their excellent set of resource materials on Argentine geology. In early January, 1993, Chris, Carolyn, Charlie (10), and Gene (4) flew to Argentina. They lived in Cordoba where Chris was associated with the university and began several field research projects on the structural and tectonic setting of the Sierras Chicas and the Sierras Grandes. After Carolyn and the boys returned to the U.S. in April, Chris moved on to the university in San Luis, where he began several more research projects. He returned to Michigan in July. Chris's work in Argentina has so far resulted in the co-

authorship of three papers presented at the Geological Congress in Mendoza, Argentina, in October and two papers presented at the Geological Society of America meeting in Boston. He taught an invited short course on the structure of the Rocky Mountains at the Mendoza meeting. He is busy preparing proposals for funds to return to Argentina and continue this exciting new work. The whole family treasures the personal and professional friendships they made in Argentina.

DR. MARIAN M. SMITH ADJUNCT ASSISTANT PROFESSOR

This past year I have enjoyed teaching Earth History in the Geology Department and Science Literacy and Community Outreach in the Lee Honors College. I received a grant from Michigan Campus Compact to take my honors class to do "Science Grows in Cassopolis, Michigan" - a six part Family Science Night series. I had tremendous assistance from faculty and students in the Geology Department. We had sixteen different activities at our Earth Science Night and 120 people showed up! We were thrilled with the response from the community.

One of our Family Science Nights was a Math Teach-In and amusingly enough I was asked to write a paper on it for a new journal entitled, *Teaching Math in the Middle Schools*. I am also giving a paper on my activities at the National meeting of the Geological Society of America in Boston in October and at the National meeting of the American Association of Higher Education in Pittsburgh in December.

On November 22, we are hosting "Webelos Geology Night" in the department. All persons with both geology and scouting experience are being asked to participate. I have had no shortage of volunteers, everyone seems happy to dig out their remembrances of their scouting days as proof of their scouting experiences.

In the winter semester, my honors class will undertake a huge project. We are designing two nights: A Math Teach-In for Middle School Families and a multi-disciplinary show entitled "Science Flows." We plan on taking these two nights to several rural school districts in southwest Michigan.

Friday, April 29, will be Earth Science Teachers' Day at the annual meeting of North Central GSA. As Chair of the North Central Education Committee for GSA, I am planning a full slate of activities: A session sponsored by NAGT on resources in the Great Lakes, a hands-on share-a-thon at lunch and a special session on Math in the Earth Sciences which I call MEARTH.

I am also working with the National Office of the Scientific Research Society - Sigma Xi - to set up a chapter in Kalamazoo. In January, I am giving a talk to the Whirlpool chapter of Sigma Xi entitled, "How Scientists May Better Assist in Mentoring to Teachers."

FACULTY NEWS (CONT.)

So I am really happy, working with children and teachers. I do lots of program with the Kalamazoo Area Math and Science Center, the Kalamazoo Public Museum, and local schools. I received a grant from the Kalamazoo Public Education Foundation to have Chime Elementary School children do activities on the Al Sabo Nature Preserve and become "Al Sabo Junior Rangers."

AWARDS AND SCHOLARSHIPS

Undergraduate

GSA North-Central Section Undergraduate Research Grant - Mei Leng Wong
Kalamazoo Geological & Mineral Society Summer Field Trip Scholarship - Mei Leng Wong
Michigan Association of Governing Boards Student Award - Mei Leng Wong
NAGT Field Camp Scholarship - Mei Leng Wong
NAGT Minority Field Camp Scholarship - Mei Leng Wong
Presidential Scholar in Geology - Mei Leng Wong
Senior Honor Award - Geology-Mei Leng Wong, Hydrogeology-Angela Kemp
Siebert Undergraduate Research Travel Award - Mei Leng Wong
Undergraduate Research and Creative Activities Award - Mei Leng Wong

Graduate

Chevron USA, Inc., Field Award - Timothy Clarey
Graduate College Student Research Grant - Timothy Clarey, Allan P. Hascall, Madhav V. Machavaram
GSA Graduate Student Research Grant - Timothy Clarey
Wyoming Geological Survey J.D. Love Field Scholarship - Timothy Clarey

SERVICE STAFF NEWS

Bob Havira spent the summer (1993) teaching Physical Geology at Western and Art 416 (Photography I) at Kalamazoo College. In the fall he had an exhibit of 26 black and white photographs at the Light Fine Arts at Kalamazoo College called "Silver Landscapes."

One of our secretaries, Kori Rafferty, has taken a full-time position with an accounting firm and is no longer working in the Department. Kori graduated from WMU in April with a bachelor's degree in accounting and we wish her the best of luck in her career.



DR. RICHARD PASSERO ANNOUNCES RETIREMENT

Dr. Richard Passero has announced that he will retire at the end of the fall 1993 semester. As all of you are aware, this will be a major change. Dick joined the faculty here Fall Semester, 1966, and has been a departmental stalwart since the day he arrived. He played a major role in earth science education at Western and throughout Michigan until he took a sabbatical to Stanford University, the United States Geological Survey, and the "Bay Area Study" to "retool" as an environmental geologist. No sabbatical was ever worth more to an institution and its students.

He played a pivotal role in the Geology of Michigan for an Underground Injection control grant and resulting Hydrogeologic Atlas of Michigan. He developed the Institute for Water Sciences, served as its first director, and through the Kellogg Foundation, Ground Water Education grants has done much to bring credit to this entity. He is internationally known for many achievements, but may be best known for Aquipro, a system for evaluating aquifer vulnerability and the physical ground water model that he has been developing for the past few years. It was most fitting that he receive the Michigan Association of Governing Boards teaching award in 1992-93.

We are pleased that he will remain in the area and continue to work with the Ground-Water Education in Michigan grant and the research he has been doing in Cass County.

HYDROGEOLOGIC ATLAS AVAILABLE

The Department of Geology has several copies of the Hydrogeologic Atlas of Michigan. If you are interested in purchasing a copy of the Atlas and the text, send a check for \$332.50 (made out to The Department of Geology, Western Michigan University) and a note requesting the Atlas, and we will mail a copy to you.

DO YOU RECOGNIZE THESE WMU GEOLOGISTS?

Answers on page 12.



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ALUMNI /FRIENDS/FORMER FACULTY NOTES

Dean Anderson is the principal at Mondovi Public Schools, Mondovi, WI, and is active in a number of community and professional associations.

Carl Babb is working for Hydro-Engineering in Wyoming. He and his wife are living in Caspar, WY. He advises everyone to get as much computer training as possible--you'll need it!

Jean Baier is a spa-massage therapist at PGA National Resort & Spa in Palm Beach Gardens, FL. She specializes in shiatsu, neuromuscular, and spa therapies. In her spare time she enjoys golfing, bicycling, and scuba diving.

John Bailey works for Kellogg's in Battle Creek at the Science and Technology Center. He is a food technologist in product development. He spends his free time coaching girls' tee-ball teams.

Casper Cronk usually manages to visit the department at least once a year and this past year was no exception. He reports that all is well in London and that he recently met some of our alumni at a geophysics meeting in Houston. Still in the oil patch are **Chris Dick**, **Bill Landwer** and **Rob Choate** all in the Houston area. **Hal Taylor** is still with Philip's Petroleum and living in the Calgary area.

Stephen Culver is a geophysist for Unocal North American Oil & Gas Division working offshore of the Gulf of Mexico. He's currently working the Pliocene offshore Texas and Louisiana as well as the Miocene.

Andrew Davis is the Executive Director of the West Michigan Environmental Action Council in Grand Rapids.

Other rumors suggest that **Dave Develder** has moved back from the Chicago area and is working in the Grand Rapids area. Some other alumni who have recently relocated in the Grand Rapids area include **Mary Lannon** (who has recently married) and **Craig Rupnow**.

The news from the great ski slopes of Colorado says that **Kate Edgar** is spending some time in the Vail area but may venture back into academia sometime soon.

Andy Erich is a Research Assistant at the Geophysics Department, Colorado School of Mines. Interests include earthquake seismology and seismic risk/hazard. He plans to receive his MS in geophysics in 1993.

Steve Ewing is now working for Kaizer Associates in the Kalamazoo area. Steve has been taking some hydro courses at Western in his spare time.

We have heard that wedding bells have rung this fall for **Jim Finetti**, **Marty Knop**, and **Lori Wintz** (now Lori Gandy). Lori still works for Dell Engineering in the Holland, MI, area. Heartfelt congratulations are in order.

Mark Hatton is working for Wilkins & Wheaton in Kalamazoo, and also locally employed is **Gary Mauchmar** who is with Soard Data Systems, a computer firm.

Kim and Bill Heimsath have started a family and are now the

proud parents of a little baby girl.

Kathy Hewett has moved from this pleasant peninsula and has now settled in the Indianapolis, IN, area working for (what else?) an environmental engineering firm.

Joe Hobin has moved to Attleboro, MA, and still keeps in touch with **Bill Norman**, **Chick Crease**, **Gerard Martin** and **Neal Carey** who are all doing well and as successful consultants.

Dawn Hoenes is teaching at Union City High School and is involved in the training in and implementation of applied math and sciences at the high school level.

Brian Jeffs who is with the DNR in Lansing visited the department recently. Brian is finally finished his masters thesis from Bowling Green. Brian never did get the nickname "Speedy."

Matt Kaplinski is a research associate at the NAU Geology Department researching the effects of dam operations on sand bars along the Colorado River through The Grand Canyon.

Wendy Manial was last reported to be in the Toledo, OH, area working for an environmental engineering firm.

Terri (McLain) Reed is a geophysist with ARCO Exploration and Production Technology.

Another WMU alumni in the Chicago area is **Jonathan Meier** who is working for Dames & Moore in their Windy City office. **Audrey Johnson** is working for an environmental firm in Troy, MI. Also in the Detroit suburbs is **Matt Brewer** who is working for ES&T in Farmington Hills.

Paul Micciche is a hydrogeologist at IT Corporation in Rochester, NY. His professional interests include soil vapor investigations, RI/FS's & regulatory issues and project management.

Randy Milstein also visited the department recently. He is finishing his Ph.D. degree at Oregon and has been teaching some of their sedimentology courses.

Yet another visitor from a far distance was **Glenn Oliver** who still teaches earth science in the Anchorage, AK, area. Glenn also has a thriving photography business going to help fill in those idle moments.

Michael Palazzola has taught 7th grade earth science at the Grandville Public Schools for 20 years, has been the department chair for 15 years and has coached girls and boys varsity cross country for 10 years. His family includes his wife and three children.

Mark Parrish joins many other alumni as an employee of Superior Environmental in the Grand Rapids office.

Thomas Rice is an instructor of robotics/automation at Oakland Technical Center-Northeast Campus in Pontiac, MI.

Dave Russel has started his own business in the Minneapolis area and has gotten married and is starting a nice family with two young daughters.

Kiff Samuelson is working for an engineering consulting firm in the Duluth area. Kiff is now married and has two children.

Also visiting Kalamazoo recently was **Brian Sauls**. Brian is

married, has two children, and is working as a project manager for R.E. Wright Associates in the Harrisburg, PA, area.

John Shamo is president of Hopper Exploration, Inc. In 1992 they were named runner-up for the "Wildcatter of the Year Award" for their significant oil discovery in Jefferson County, IL. They intend to drill an exploratory well in Hamilton County, IL, with great expectations as well as six or seven development wells associated with some of their other producing leases.

The Department had the pleasure of a recent visit by **Dr. Ron Sides** who, as many may recall, filled in as a sabbatical replacement for Ron Chase some years ago. Ron is now working for a law environmental engineering company in St. Louis, MO. It was good to see Ron again and we enjoyed his visit.

Andy Swartz is a special recyclables coordinator for the Wisconsin DNR and is also a grad student at the University of Wisconsin-Madison. Interests include solid waste policy, specifically related to waste prevention. He has wedding plans for the Spring of 1994.

Vince Szymanski is currently employed as a geologist at Gosling Czubak Assoc. in Traverse City, MI. His work consists of focusing on alternative methods for groundwater investigations and remediation. He's currently involved in development and testing of a ground conductivity (FDEM) survey for delineating chloride contamination in groundwater.

Rumor has it that **Sheryl Taylor** is now teaching at the community college in Brainard, MN.

Jean Tolanda who is with the DNR in Plainwell is enjoying motherhood so much that she is expecting her fourth offspring soon!

Carol Tucker substitute teaches and serves on the PTO at daughter Kate's school. Husband Jim is a PhD candidate at Colorado School of Mines and is also working full time.

Robert Webster is currently working as an industrial hygiene technician for Environmental Evaluations Lab Service specializing in asbestos removal. In his free time, he competes in karate championships.

Kathy Whitley is a staff geologist at Conoco in Houston; husband Don is working at ERM Southwest, an environmental company. Son Jonathan keeps them both busy and happy.

Mike Wireman visited the department this past summer. Mike is with the EPA in their Denver office and has recently become a father.

Everett Wirgau is a retired metallurgist from Oldsmobile Div., General Motors. He's well versed on road cut geology through the states and now that he's retired he can stay as long as he wants to at outcrops.

IN MEMORIAM

The Department is saddened with the loss of one of its best friends for many years, Mr. Harlan Waters of the Kalamazoo Geological and Mineral Society.

Harlan was from Paw Paw, Michigan, and had experience in the hardware business as well as a long teaching career. He also operated a rock shop in Paw Paw, and after his retirement he gave most generously of his time in order to present geology mineralogy programs to school children around southwest Michigan.

As a member of the Kalamazoo Club, he was instrumental in helping to establish the field camp scholarship fund that has given much needed support to Western students to help defray expenses incurred during summer field camps. This has been a very successful program and the club's efforts have been maintained and, indeed, increased in this endeavor over the past 15 years.

Harlan bequeathed to the Department many fine specimens from his enormous collection of geological materials and this will be a very valuable addition to the Department's teaching, research, and museum collection. In addition, Harlan bequeathed a sum of money to the Department to help establish a scholarship fund. This fund will undoubtedly go for undergraduate students and we encourage alumni to help in this effort. If you have any questions please contact the Department.

We will surely miss Harlan and hope that future students will benefit from his many fine contributions.

The Department has also been informed that former student Patrick Ellsworth was killed in an avalanche while skiing near his home in Salt Lake City, UT, on February 25, 1993. He was employed as a geologist with Industrial Health Incorporated until the time of his death.

DEPARTMENT OF GEOLOGY NEWSLETTER

GEOLOGY DEVELOPMENT AND SCHOLARSHIP DONATIONS

Your generous contributions to the Department support a wide array of activities and we appreciate your help. We try to thank each donor, but as with all bureaucracies we do miss someone occasionally. If we missed you, please know that we rely on your support and will continue to make every effort to acknowledge your gifts. Please accept our sincere thanks for your generous support.

Alumni and Friends - Ms. Christina Alexander, Mr. Dane Alexander, Ms. Mary Alexander, Mr. John Bailey II, Ms. Deborah Baranoski, Mr. Michael Baranoski, Lezlie Barker, Mr. Scott Barker, Mr. James Barnett, Ms. Sandra Barnick, Mr. James Bartel, Ms. Robin Geesey Bartel, Mr. James Bohlin, Ms. Olga Bowles, Ms. Beverly Crabb, Mr. Robert Crabb, Ms. Maryann Crawford, Mr. Timothy Crawford, Mr. Steve Culver, Mr. Dennis Curran, Mr. Douglas Daniels, Mr. Gerald Dayharsh, Mr. LeRoy DeNooyer, Mr. Stanley DeRight, Leslie Devera-Duncan, Mr. Richard Dickerson, Mr. James Duncan Jr., Mr. James Duncan Sr., Mr. John Duncan, Mr. Phillip Duncan, Mr. Thomas Duncan, Mr. Michael Dunn, Mr. Tim Dykstra, Mr. Ronald Erickson, Ms. Pamela Evans, Mr. Kurt Ewoldt, Mr. Walter Fingleton, Mr. Warren French, Mr. William French, Mr. Michael Gallagher, Ms. Jeanne Garfield, Mr. Stephen Garfield, Mr. Joseph Hobin, Ms. Yolanda Hobin, Mr. Harold Hoelzle, Ms. Sherry Hoelzle, Ms. Anna Horst, Mr. Oscar Horst, Mr. Edgar Hunt, Ms. Jane Farwell Hunt, Mr. Thomas Hylland, Mr. Randall Kehrin, Mr. Peter Klemkowsky, Ms. Donna Lambert, Mr. Thomas Lambert, Ms. Debra Lefler, Mr. James Lefler, Ms. Gayle Lopiccolo, Mr. Robert Lopiccolo, Mr. Bruce McLeod, Mr. James Meinke, Mr. Kent Meisel, Ms. Suzanne Merrill, Mr. Dennis Miles, Ms. Sandra Miles, Jeranne Minnich, Mr. James Nidy, Mr. Ronald Parker, Mr. James Peterson, Mr. Thomas Rice, Mr. Adolph Rousek, M. Sawyer, Dr. Lloyd Schmaltz, Ms. Marilyn Schmaltz, Mr. James Schmidt, Mr. Eric Schreur, Mr. Kevin Serrin, Mr. Charles Soule, Ms. Julie Stein, Mr. Roger Steininger, Ms. Odessa Straw, Dr. W. Thomas Straw, Ms. Bridget Tkacik, Mr. Peter Tkacik, Mr. Douglas Thompson, Mr. Dennis Tripp, Mr. Melvin Troyer, Ms. Carol Tucker, Mr. Neal Upton, Harlan Waters Estate, Ms. Katharine Whitley

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THANK YOU FOR YOUR DONATIONS

During the past year we have been able to accomplish many things because of your generosity. We have hosted several speakers, helped pay the way of undergraduate and graduate student researchers to conferences, purchased maps, photos, and small equipment to support student and faculty research, and a wide array of additional items. Although we have been enjoying unprecedented support by the University administration, our program and needs are simply developing faster than they can follow adequately. Your help is sincerely appreciated.

We hope that you will consider making a contribution to the Geology Community. You may do this by sending a check payable to: WMU Foundation - Department of Geology.

You may specify that your donation go to the Department of Geology Development Fund or the W. David Kuenzi Scholarship Fund. The Development Fund is used to support a wide array of activities, including undergraduate scholarships, student travel, supplemental support for equipment purchases, student activities and a variety of projects for improvement of teaching and research in the Department. The Kuenzi Fund is used to support graduate student research with emphasis on students studying sedimentology.

NEW ALUMNI

The following people received their degrees from WMU's Geology Department between December, 1992, and August, 1993. Congratulations!

Bachelor Degree Recipients

Earth Science - Michael Banish, David DeRuiter, Robert Elliott, Karen Foster, Wendy Ginther, Jeffrey Hatley, Jeffrey Hunt, Kathleen McGuire, Jennifer Payton, Edward Prescott, Scott Riley, Shannon Small, James Smith, Lenny Starck

Field Hydrogeology - Marc Hatton, Thomas Holdeman, Derek Marranca, Kevin Schlett, James Weingart

Geology - Bryan Adams, Kenneth Bergenham, Kelly Keighley, Darryl Sydloski, Mei Leng Wong

Hydrogeology - Kristen Callahan, Angela Kemp, Nicholas Larabel, Gregory Lawton, Edward Thomson, Michael Zack

Master Degree Recipients

Earth Science - Dean Blauser, John Boynton, Blair Dudley, Martha Klein, Christine Kosmowski

Geology - Rusli Bin Adam, Bryan Allen, Richard Andrews, Carlton Babb, Jarrall Barnett, Thomas Barrett, Gary Blinkiewicz, James Bradley, Timothy Clarey, Bruce Coffman, Paul Daniels, Jr., Ralph L. Freed, Hugh Heuvelhorst, Joseph Hobin, Thomas Kamin, Sam Kitchin, Madhav Machavaram, William Ruddiman III, Joseph Stellavato, Matthew Stuk

Western Michigan University

GEOLOGY COMMUNITY



Back Row Standing:

John Holder, Paul Vernier, Bill French, Bill Johnston, Vince Szymanski, Bill Harrison, Bill Phillips, Mike Colvin, Howard Nivens, Marcus Bowen, Russ Miller, Charlotte Carr, John Grace, Terry Reed, Norm Nash, Lloyd Schmaltz, Ron Sides, Harlan Waters, Jean Sholquist, Ellsworth Bartholomew, Caspar Cronk

2nd Row Kneeling:

Hall Taylor, Jim Dexter, Jim Hahnenberg, Jim Bartel, Mari Krull, Stacy Clark, David White, Jeff Martin, Valerie Naeve, Ray Kizer, Tim Cook, Jeff Spruit, Chris Dick, Nate Fuller

3rd Row Sitting:

Paul Ciaramitaro, Dave Naas, Crystal Lynn Kemter, Donna Solce, Dave Young, R. Lynne Aldrich, Darcey Davenport, Jenny Hoffmann, Brad Jordan, Arlene Shub, Luke Heffernan, Holly Schipper

Center:

W. David Kuenzi, Ron Chase

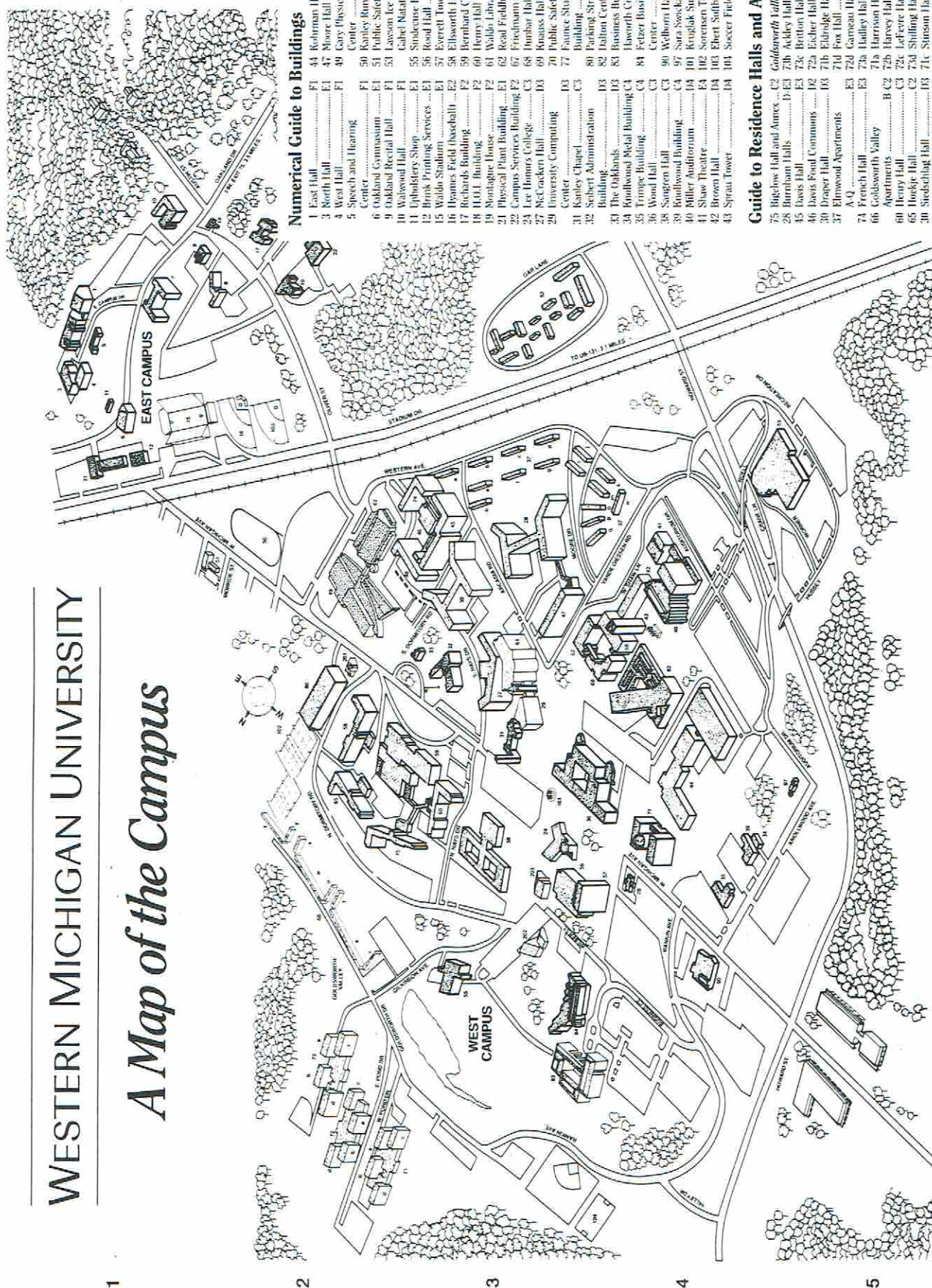
Not Pictured:

Mark Buddy, Betty Garrett, Richard Passero, Jim Post, Lynn Skinner, Cameron Streidl, W. Thomas Straw, Mark Wagner, Greg Yund

WESTERN MICHIGAN UNIVERSITY

A Map of the Campus

A B C D E F G



Numerical Guide to Buildings

1 East Hall	F1	43 Rohman Hall	C104
2 North Hall	E1	47 Moore Hall	D3
3 West Hall	F1	49 Gary Physical Education Center	E2
4 Speech and Hearing Center	F1	50 Kanley Running Track	E2
5 Oakland Gymnasium	E1	51 Public Safety	F1
6 Oakland Rectal Hall	F1	53 Lawson Ice Arena and Gabel Natatorium	F4
10 Walwood Hall	F1	55 Strickland Health Center	B3
11 Upholstery Shop	E1	56 Road Hall	C3
12 Brink Printing Services	E1	57 Everett Tower	C3
15 Waldo Stadium	E1	58 Ellsworth Hall	D2
16 Thomas Field House	E2	59 Bernhard Center	C3
17 Richards Building	F2	60 Henry Hall	D3
18 H.U.L. building	F2	61 Waldo Library	E2
19 Boutique House	F2	62 Read Fieldhouse	E2
21 Physical Plant Building	E1	67 Friedman Hall	D3
22 Campus Services Building	F2	68 Imbrie Hall	D3
23 Lee Homer College	C3	69 Knappa Hall	D3
24 McCracken Hall	D3	70 Public Safety Annex	C4
27 University Computing Center	C3	77 Finance Student Services Building	C4
31 Kanley Chapel	D3	80 Parking Structure	D2
32 Schert Administration Building	D3	82 Patton Center	D4
33 The Oaklands	D3	83 Business Building	D3
34 Knollwood Metal Building	C4	84 Haworth College of Fetter Business Development Center	B3
35 Trimpe Building	C4	90 Welborn Hall	B4
36 Wood Hall	C3	97 Sara Swickard Preschool	C4
39 Knollwood Building	C4	101 Kruglak Sundial	C3
40 Miller Auditorium	D4	102 Sorensen Tennis Courts	C2
41 Shaw Theatre	E4	103 Ebert Softball Field	E2
42 Brown Hall	D4	104 Soccer Field	A3
43 Sprau Tower	D4		

Guide to Residence Halls and Apartments

75 Bellow Hall and Annex	C3	Goldworth Valley Units 1, 2, 3	
28 Barnham Halls	D-E3	726 Ackley Hall	B2
45 Davis Hall	D3	728 Brillon Hall	B2
46 Davis Food Commons	D3	729 Ecker Hall	A2
30 Draper Hall	D3	730 Elridge Hall	A2
37 Elmwood Apartments	A-Q	731 Fox Hall	A2
74 French Hall	E3	720 Garneau Hall	A2
66 Goldworth Valley Apartments	B-C2	738 Hadley Hall	B2
60 Henry Hall	C2	71a Harrison Hall	A2
65 Hoekie Hall	C2	72b Harvey Hall	A2
30 Stedslag Hall	D3	72c LeFevre Hall	B2
8 Spindler Hall	F1	734 Shilling Hall	B2
52 Stadium Drive Apartments	F3	71c Stron Hall	A2
7 Vandercreek Hall	F1		
10 Walwood Hall	F1		
48 Zimmerman Hall	D2		

Private Property

201 Lutheran Student Center	D2
202 St. Adair's Chapel	B3
203 Wesley Foundation	C3

WESTERN MICHIGAN UNIVERSITY
COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF GEOLOGY
KALAMAZOO, MI 49008

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DEPARTMENT OF GEOLOGY NEWSLETTER

MAILING LIST

We are anxious to keep your current address on our mailing list and, therefore, ask for your cooperation in advising us if you move. Also, if you know of other alumni who do not receive this newsletter, please send their names and addresses; we would like to add them to our file.

Name

Major

Degree

Year

Address & Phone

Current Employment

Professional Interests

News Items

Return to: W. Thomas Straw, Department of Geology, Western Michigan University, Kalamazoo, MI 49008. Phone (616) 387-5485.
Fax (616) 387-5513

Answers to photos on page 6. Top row: left photo, Francine Cohen, Vicki Mertz, right photo, Joe Hoblin. 2nd row: left photo, Bob Sutton; right photo, Sandy Barnick. 3rd row: left photo, Randy Reichert, Tom Mahan; right photo, Dr. Bill Harrison, Michael Gallagher. Bottom row: left photo, Tom Munson, unknown (send us a note if you know who this is!); right photo, Carl Lundgren.