Geology Department Newsletter



"Educating students to shape their lives, their professions, and their societies"

January 2008

Letter from the New Chair,

After six months on the job my concerns about being the new chair for the department have been drowned out by the constant buzz of industry. Kevin left the department in sound fiscal shape and I value his steady guidance. Since his accident in October we have soldiered on. His absence is felt daily. Fortunately, Ginny Peterson and Peter Wampler stepped up to teach the remainder of the mineralogy course.

We have a steady, high demand for our courses. Mineralogy, essentially the gateway to the major, was standing room only and has expanded to two lab sections (fortunately Padnos 122 will be remodeled this summer, providing some relief). We have over 75 Geology, Geology/Geochemistry, and Earth Science students and support about 220 Integrated Science majors. Interestingly, we now have almost as many Earth Science minors as majors, a boost from the new Integrated Science Endorsement for secondary teachers. We are still one or two tenure-track positions shy of our staffing needs and we'll continue to remind the Provost. In all, we shared the good news about earth science and geology with more than 1,600 students this year.

The faculty is as vibrant as ever. As you will read shortly we are well represented from your local school district to international conferences. I am proud of the excellent scholarship the department achieves, especially those projects that involve students.

I am delighted to welcome Dr. Pablo Llerandi-Román to the department. Pablo is a recent graduate from Purdue University with his Ph.D. in geoscience education. Pablo's primary teaching responsibilities are to the integrated Science program but his quality in teaching and knowledge of pedagogy elevates the bar for all of us.

Several faculty invited leading experts to the department that benefited the faculty, students, and the public. Speakers included Mike Gallagher, Ed Warner, Anders Carlson, and Brian Atwater. Mike was selected as our GVSU Alumni in Residence and spent a day with us sharing insights into his career as a geologist and an educator. Ed was responsible for finding one of the largest natural gas deposits in North America. Anders presented



Students and faculty during the spring sedimentology stratigraphy, and petrology field trip (P. Videtich).

recent data on the rate of climate change as part of the International Polar Year speaker series. Brian described the 1700 tsunami that devastated coastal Japan and how he tracked its source to the Pacific Northwest.

The final steps have been taken to establish the Norman Gibson Geology Field Study Scholarship. The scholarship will provide funds to students with research projects in geology or geoscience education. We appreciate the kind gifts from Norman's children and many others, especially the folks of the Tulip City Gem and Mineral Club.

We are starting the new year with a meeting of a diverse set of alumni, the first step in forming an Alumni Advisory Board. We hope the board can inform our curriculum decisions to better educate and train our students and add value to our programs. For example, this semester the university will approve our new Environmental track within the Geology major. This track requires an internship with local environmental firm. If you are interested in serving on the Advisory Board or mentoring a student please contact me.

If you haven't contributed or updated your biography in the newsletter please do. It's always wonderful hearing from you.

All the best in 2008,

Steve Mattox

"Grand Valley State University is a public institution with a local, regional, and state commitment, and a global perspective. We are dedicated to providing our students with the highest quality undergraduate and graduate education."

Department of Geology Padnos Hall of Science Allendale, Michigan 49401 office telephone: (616)-331-3728 office fax: (616)-331-3740

electronic mail: geodept@gvsu.edu http://www.gvsu.edu/geology/

Geology Faculty and Staff

Steve Mattox - Chair, Associate Professor

Kevin Cole - Associate Professor Rick Barnes - Adjunct Instructor Jonathan Burr - Adjunct Professor Patrick Colgan - Associate Professor Larry Fegel - Affiliate Faculty Kelly Heid - Adjunct Instructor Tom Hendrix - Emeritus Professor Dick Lefebvre - Emeritus Professor Pablo Llerandi-Román - Assistant Professor Figen Mekik - Associate Professor Bill Neal - Emeritus Professor Ginny Peterson - Associate Professor Peter Riemersma - Associate Professor Laura Smart - Visiting Assistant Professor Norm TenBrink - Emeritus Professor Becky Touchett - Adjunct Instructor Patricia Videtich - Professor Peter Wampler - Assistant Professor John Weber - Associate Professor

Greg Wilson – Instructor & Lab Coordinator Linda Noel – Academic Department Coordinator Janet Potgeter – Department Secretary

Currently there are 53 Geology & Geochemistry majors, 7 minors, and 24 Earth Science majors and 22 minors. There are currently 220 students in the Integrated Science Program (pre-service teachers).

2007 Department Graduates

B.S. Geology
Kathryn Barnard
Sydney Boos
Ronald Friend
Joel Kenyon
Carson Klemp
Andrea Magoon
Kirk Perschbacher
Steve Polkowski - 2007 Outstanding Geology Undergraduate
John Vogelzang
Patrick Womble

B.S. Geochemistry Katie Conroy

B.S. Earth Science Michelle Bridenstine Emily Temple

Student News

Heather Brusnahan, Eric Hojnacki, Naoma Leonard, Sarah Nagorsen, Anthony Rodriguez, and Alex Snider, attended the Geological Society of America Annual Meeting in Denver, CO this November. They checked out scientific talks, posters, and graduate schools.

Heather Brusnahan and Kat Barnard (2007) both co-authored papers with John Weber at the Michigan Academy and GSA.

Sarah Nagorsen and Patrick Womble (2007) both co-authored posters with Peter Wampler at GSA in Denver.



GVSU Geology students at Dinosaur Ridge State Park near Denver, CO (P. Videtich).

Faculty and Staff News

A note from Susan Cole on Kevin's Progress "As many of you know Kevin had an accident October 6 while cleaning our home well and was overcome by H₂S fumes. The diagnosis is an anoxic brain injury. The good news is that Kevin came home from Mary Free Bed Rehabilitation Hospital just before Thanksgiving. He continues to receive speech and occupational therapy at Mary Free Bed as an outpatient three times per week. Kevin is making a remarkable recovery. He's extremely physically fit and is enjoying hiking, snowshoeing, and crosscountry skiing. He spends his days reading (a Rex Stout mystery, mineralogy texts, Space Odyssey 2010), doing therapy homework, helping around the house, and working in the shop with friends and relatives. Although Kevin is on medical leave, he visits his office frequently. Kevin often finds it very frustrating that he can't do everything he once did, but continues to make great progress. Thank you for all the cards and notes and for keeping Kevin in your thoughts. We greatly appreciate all the support we have received!"

Greg Wilson "I continue to enjoy teaching Geology 111 and in the Honors program. This past year my son Luke helped me with an Honors trip to the Yellowstone/Tetons region. The trip included 6 Honors students and lasted two weeks. I am looking forward to taking a group of Honors/Geology students to the Canyonlands region this May. My family is doing well and we are adjusting to Cooper being a freshman at Kalamazoo College."

John Weber "2007 has been an extremely busy year. Our most exciting and significant change has been the addition of a lovely and lively new daughter, Teya Li. Sarah and I traveled to China to adopt Teya Li in August (see photo below). 2007 was also a productive year professionally. In March, I led an impact Field Studies Group of about 20 international participants to the Kentland impact crater, where Heather Brusnahan (Michigan Space Grant Fellow) and I have been searching for a shock metamorphism signal in deformed sphalerite grains in polymict breccia dikes using XRD. Heather presented results at the Michigan Academy meeting in March and later at the national GSA meeting in October. GVSU student Kat Barnard also presented results from XRD analyses that we did on K-T boundary microtektites from Missouri at the Michigan Academy meeting. Heather, Kat, and I jointly published a review paper on the Kentland structure. In June, Sarah and I traveled to Trinidad to attend the 4th GSTT conference, where I led a field trip on

"Northern Range: structures, metamorphism, and tectonic geomorphology" and presented 2 talks and 1 poster. We stopped off in Barbados on the way home with Christian Koeberl (University of Vienna) and his wife and collected some interesting Eocene microtektites from uplifted pelagic rocks there. GVSU students Anthony Rodriguez (recent recipient of a McNair Fellowship) and Nate Vandermer reported their contributions to the Trinidad neotectonics work at the first annual West Michigan Undergraduate Research Conference in the fall of 2007. This year's October GSA meeting was way too busy! I was an invited presenter on 1 talk, co-author on 4 more talks, and citationist for the Structural Geology & Tectonics Division 2006 Best Paper Award. In October, I also organized and hosted IRIS/SSA Distinguished Lecturer Dr. Brian Atwater's (U.S. Geological Survey) visit; Brain delivered 2 excellent talks on his tsunami research. For weekend-long class field trips, I took my Structure students (F07) to Baraboo, WI to do structural fabric analyses, and my Earth History (W07) and Field Methods (F07) students to the St. Francois Mts., Missouri to map bedrock geology and study relative age relationships. To top off 2007, I submitted a paper (2003/2004 sabbatical research) on the neotectonics of Slovenia and the Adriatic to Geophysical Research Letters."



Teya Li, Sarah, and John, were greeted by John's parents at O'Hare airport (J. Weber).

Peter Wampler "I continued my efforts at GVSU to better understand storm water runoff and to develop more sustainable practices with the Storm Water Advisory Group (SWAG). Three shallow monitoring wells were drilled with the help of a grant from facilities. These wells will help us understand the shallow aquifer that underlies campus. Raymer Drilling also provided gamma logs for these wells so that students can learn from them. Student Sarah Nagorsen presented stream temperature data and analysis at the GSA meeting in Denver. My spring break of 2007 was spent in Haiti helping two small villages better understand their fresh water supplies. I was also meeting with potential colleagues in Port-au-Prince to lay the groundwork for more work in the summer of 2008. Summer of 2007 also found me on a raft on the Salmon River working with the Idaho Geological Survey on mapping Quaternary river terraces with students Patrick Womble and James Barr. The highlight for Patrick was having a close encounter with a rattlesnake. This work is ongoing and I hope to have additional students accompany me this summer."

Pat Videtich "I am keeping busy teaching Sedimentation-Stratigraphy, Exploring the Earth, and Oceanography. Sed-Strat in winter 2008 will be especially challenging with 17 Student Scholarship Day projects to keep track of! But it's great to have so many geology majors. Bill Neal and I are working on a paper for the *Journal of Geoscience Education* on using unknown samples for sieve analysis. Something most of you have "fond"

memories of doing in Sed-Strat! Bill, alum John Van Regenmorter, and I are still "patiently" waiting for our paper on coprolites and cololites (fossilized intestinal material) from the gypsum mine to be published in the *Michigan Academician*. In Denver in October I had a good time chatting with our everincreasing number of GVSU alums who attend the GSA conference. Hope to see even more of you in Houston! In June, I enjoyed (aside from the six inches of snow!) a tourist trip to Norway, Sweden, and Finland, especially since I finally made it north of the Arctic Circle. No reefs there!"

Norm TenBrink "All is well, and life is good during both our Arizona winters and Michigan summers. As some of you know, about 4 years ago we bought a place in Green Valley, AZ, and we live here from early Nov. to late April. To our great joy, Dick and Sandy Lefebvre also live in Green Valley within a 10-minute drive. Dick and I both joined the Arizona Geological Society so we often drive together to the monthly AGS dinners and geology presentations. The AGS meetings are in Tucson, which is only a half-hour drive north from Green Valley. Most days in Arizona I feel like a "geological tourist" as we hike trails in the nearby mountains. The Santa Rita Mts. are literally right in front of us to the east, and both the Tucson and Santa Catalina Mts. form our skyline to the north. All have an abundance of great trails, and I'm still discovering new ones when we hike with friends each week. Summers at our cabin on Hamlin Lake, near Ludington, are filled with a wide variety of outdoor activities and frequent visits from family and friends. One of the most delightful joys of retirement is the number of new friends we have made in both AZ and MI. Most of our friends are also outdoor activity enthusiasts, so a lot of our time is spent hunting, fishing, kayaking, boating or hiking. Such activity builds some good appetites, and the four deer I took with bow last fall, plus several limits of salmon and bluegills caught last summer, have kept the AZ and MI freezers well stocked with gourmet meals. Our travels in the last year have also been good adventures. We just returned on Feb. 3 from a 10-day cruise in Hawaii, where we visited 5 islands for two days each. Last winter we took a 10-day cruise from San Diego to 5 different ports along the W. Coast of Mexico. We also fly or drive to Reno, NV and/or Oakland, CA once or twice each winter to see our sons, Andy and Ryan. Andy and his wife, Robin, are both geologists who work in Reno. Ryan is an earth science teacher and wrestling coach in Dublin, CA. Family Christmas together with them is always a high light of our winter. Come see us, or drop us an e-mail, and we wish you all wellness and joy."

Peter Riemersma "It was another busy teaching year for me with over 300 students enrolled in my classes. In my large Geo 100 and 105 classes, student group presentations were required. Ginny Peterson and I shared our experiences with designing and managing such group presentations in a large lecture class setting at the Fall GVSU FTLC Teaching Conference and at the Annual GSA meeting in Denver. I also used "clickers" to more actively engage students in my Loutit lecture hall classes. Students continue to enjoy the ever popular gypsum mine trip and I was particularly pleased by the number of extra credit "gypsum. mine" songs I received. Larry Fegel and I taught a summer field course "Hydrosphere in the Great Lakes" for integrated science students and current teachers. During the eight day field trip we went underneath the Soo Locks and visited such locations as Manitoulin Island near Sudbury, Ontario and the Tilden Mine in the Upper Peninsula of Michigan. I also assisted Peter Wampler in his project to construct shallow groundwater monitoring wells on campus. In addition to logging the wells on campus, geohydrology students constructed wells closer to campus this year at Aman Park. On Feb 19 we had the third annual geology chili cook-off with over 22 submissions and 50 "tasters", including a visit from GVSU President Thomas Haas. We also had a busy Earth Science Week that included an environmental talk by

GVSU alumni Nicole Heller and two talks on tsunami from Dr. Brian Atwater (USGS). I have enjoyed being a soccer coach and reading Calvin and Hobbes cartoons to my five year old son Dakota (named after the Cretaceous Dakota Formation in Utah that I studied for my M.S.)."

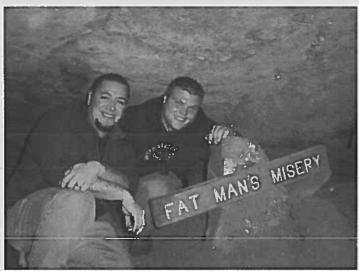
Ginny Peterson "During the last year I was awarded tenure and granted a sabbatical leave to learn a new analytical technique, which I will pursue, starting in Fall 08. I submitted a paper to the Geological Society of America Bulletin that has been the product of several years effort, synthesizing field, petrologic, and structural data to constrain the tectonic evolution of a major alpine ultramatic body in the Appalachians. In the wake of rejection of a massive collaborate NSF Research Experiences Undergraduates proposal (we have been encouraged to reapply), I obtained GVSU Grant-in-Aid funding to pursue a part of that project with current GVSU Earth Science student, Andrew DeWitt. The project has involved field work, petrography, and geochemical analysis and should be completed during the next semester. My husband, Jon Burr, is currently teaching as an adjunct at GVSU and GRCC and my daughter, Casie, is in the 8th grade. "

Bill Neal - "Mary and I continue to catch up on seeing the classic geology sites of the western U.S. (Tetons, Yellowstone, Craters of the Moon, Sawtooths, Salton Sea, etc.), and visiting our scattered family. We spent last February in southern Indiana, and have made a couple of trips to California. My professional highlights of the year were the publication of our book Atlantic Coast Beaches (see publications), and co-authoring several items for the GSA meeting in Denver. I enjoyed seeing our alums at that meeting and the spring picnic, as well as trading e-mails with several alumni, and visiting with those who stopped by the department. We especially enjoyed Mike Gallagher's visit. I continue to lend a hand on events such as Science Olympiad, an occasional sedimentology & stratigraphy project, and Student Scholarship Day. I am now turning to our next book project, and am planning a work trip to the University of Ulster in late January."

Steve Mattox "I was happy to complete a book on science and literacy with Caryn King, also of GVSU. I continue to chip away on the next book, *Geology Underfoot in Michigan*, and completed chapters on Hoffmaster and Porcupine Mountains state parks. I presented numerous projects at various meetings with many students. Highlights of the year include kayaking on Lake Superior, field trips with students to Mammoth Cave and Kentucky, and a family vacation to Jamaica."

Figen Mekik "Greetings. 2007 was a great year for me. I got to visit several universities as a guest speaker and convened two sessions at the annual American Geophysical Union (AGU) meeting in San Francisco and was invited to Washington, DC to help AGU with scheduling sessions for the whole meeting, and am re-invited for 2008. This is a great learning experience for me because just this year alone nearly 15,000 scientists attended the meeting and presented their research. I had two peer-reviewed publications come out and one accepted for publication this year (but is still in press). This last paper I co-authored with one of our alums: Lisa Raterink. I also started publishing on www. realclimate.org and a Turkish web site about climate change as part of a public education/outreach effort. Our Angus cruise made the Lanthom this summer, and finally, the greatest honor of all, I was selected by the GVSU student senate to give a talk in the last lecture series this year! The year ended with two earthquakes in my home town in Turkey (Ankara) but fortunately there were no deaths. Hopefully 2008 will be just as good if not better than this past year for all! "

Kelly Heid "I teach Exploring the Earth labs and work for the Regional Math and Science Center. After attending a workshop at GSA. I became interested in designing some lab activities that use ocean core data for the GEO111 students. This interest developed into a workshop for science teachers. In June, I helped bring a special Joint Oceanographic Institute (JOI) Deep Ocean Core workshop to GVSU. Fourteen science teachers from around the state joined professors Kristen St. John, James Madison University, Mark Leckie, University of Massachusetts, and Patrick Colgan, GVSU for a three day professional development workshop. The teachers learned basic sediment core description techniques, determined what oxygen isotopes and the biostratigraphy of core sediment layers can tell about the Earth's past, and the use of core sediments to support plate tectonics and a high latitude climate change. The teachers also participated in a research project by using a vibracore to collect a core section of the sediments within the ravines on campus."



Fat Man's Misery passage, Mammoth Cave; Pablo and Mitchell Bosch (P. Llerandi-Román)

Pablo Llerandi-Román "The year 2007 represents one of the most productive of my career. The highlights were the completion and defense of my dissertation at Purdue University during the summer and my new job as an Assistant Professor at the Department of Geology at GVSU. During this first semester I taught GEO 202: The hydrosphere for teachers and GEO 100: Environmental geology. One of my colleagues mentioned that the best part of our job is the interaction with our students. completely agree. During the semester I have witnessed the growth of my students as well as my growth as an educator and as a person. Part of this growth is reflected on my professional development through geoscience education presentations, spearheading the efforts to develop a Masters program in science education along with my colleagues from the Integrated Science program, local and out-of-state field trips, and research projects with undergraduate students. My colleagues, students, and family have been instrumental in helping me to feel at home and to be productive. Miriam, Yulaiza, and Katsi have also found a supportive group of friends from school, GVSU, and from the city. I am happy that we all have been able to adapt well to our new life in Grand Rapids.

Dick Lefebvre "Greetings from the Land of AZ. Sandy and I moved out to Green Valley, AZ (another GV?!?) in 2004 and have comfortably made a new home that includes friends from all over the country, including West Michigan like Norm and Shirley TenBrink. Please give us a ring (520-203-7765) if you're ever in the Tucson area, as some alumni and faculty already have. There

is hardly an activity unavailable in our 13 recreation centers. Personally, I keep busy, not with the three Rs, but the three Ps—pedals, pics, and poker—not necessarily in that order. Sandy is active with her newcomers group (The Hot Tamales) and some crafts, in addition to getting knees replaced—one down, one to go. Laury, Jeff, Curt and their families make it out once or twice a year, the last being this past Christmas which we topped off with a stay at the El Tovar Lodge on the rim of the Grand Canyon, a reat treat! Geology is, of course, all around us. I was able to get out collecting with two alums—Tom Bee and Loyal Suntken—when they were at the Tucson Gem and Mineral show last February. In addition, I volunteered to work on the field trip committee for the Arizona Geological Society's September "Ores and Orogenesis Symposium". I attended the meeting and went on two of the field trips to learn more about the local geology."

Tom Hendrix - "In August 2007 in Dillon, Montana, I participated in the annual field meeting of the Tobacco Root Geological Society, a group populated by graduates of the Indiana University geological field camp (located in the Tobacco Root Mountains, SW Montana); USGS personnel interested in the northern Rocky Geological Mountains: Montana Survey Geologists; academicians; and a few rock hounds. The highlight of the threeday trip for me was a visit to the Sandy Hollow multiplex structure - a spectacular fold/fault complex produced by the impingement of the upper plate of the Sandy Hollow oblique thrust fault on the eastern limb of the Sandy Hollow anticline. I had mapped this structure in 1986 with the help of Ken Bevis, a GVSU graduate, and since have updated the work with short visits to the site. During this visit I was delighted to learn that the area has been set aside as a scientific preserve through the efforts of Professor Rob Thomas (Western Montana College). For several days after the meeting I went trout fishing in the Big Hole River and South Boulder Creek with moderate success, but the most memorable part of this trip was to see how badly this beautiful area has suffered from a decade of drought and the forest fires of July, 2007."

Larry Fegel "This past year was quite something. After 27 years, I finally made it to Mt. St. Helens! Mary Kay and I celebrated our 30th anniversary with a trip west. We hiked in the Sawtooth Mountains in Idaho, drove through the Columbia Gorge, and spent a day at the volcano. We then spent a week in western Montana. We had spent our honey moon in British Columbia at Athabasca Glacier. A honey moon at a glacier, 30th anniversary at a volcano, I can hardly wait for our 50th anniversary. My teaching continues to center on GEO 202, Hydrosphere for Preservice teachers; GEO 203, Atmosphere for Preservice Teachers; and GEO 111, Exploring the Earth. This past summer, Peter Riemersma and I taught a field version of 202. We took a group of students and classroom teachers on a trip through northern Michigan and into Canada. We visited the science center at Sudbury and spent a couple of days on and around Manitoulin Island looking at glacial features. We had a great tour of the Soo Locks. We also visited Pictured Rocks, the iron country around Marquette, and Seney Wildlife Refuge. Peter and I will offer the class again this summer with a few changes. We will substitute Mackinac Island for Manitoulin Island and stay in Michigan. My community outreach still centers on helping the Outdoor Discovery Center in Holland and rewriting the K-9 science curriculum for Kent Intermediate School District. Along this line, Steve Mattox and I presented seminars at the Kentucky Environmental Education Conference in Cave City, Kentucky last fall. "

Patrick Colgan "I finished my cosmogenic exposure dating project in Tibet by co-authoring a paper in the *Chinese Science Bulletin* with Prof. Zhou Shangzhe of South China Normal University. In March, I was the geological section co-chair for the

2007 Michigan Academy of Science meeting at Ferris State. I also co-authored a paper presented by student Rhiannon Mulligan (Earth Science minor). In the summer, I worked with my spouse Kelly Heid on a JOIDES Teacher Workshop on ocean science. On my 2008 sabbatical, I am starting a new project looking at the distribution and timing of relict permafrost in North America and the role of permafrost in the carbon cycle during the last deglaciation. I am still waiting patiently for a kidney transplant and I eagerly look forward to future travels."



Patrick Womble and James Barr with large cobbles 660 feet above the Salmon River in background (P. Wampler).

Departmental Field Trips 2007

In March, Steve Mattox took Integrated Science students to the dinosaur exhibits at the Children's Museum in Indianapolis, Falls of the Ohio State Park in Indiana, and Mammoth Cave, Kentucky.

In April, Ginny Peterson and Pat Videtich led a five day field trip for petrology and sedimentation and stratigraphy classes.

In May, John Weber and Heather Brusnahan led a trip for the Impact Field Studies Group, Annual trip to the Kentland, Indiana impact crater.

In June, John Weber was a co-leader on a one-day field trip for the Geological Society of Trinidad and Tobago, 4th Geological Conference entitled: Northem Range: structures, metamorphism, and tectonic geomorphology.

In August, Larry Fegel and Peter Riemersma led a summer field course Hydrosphere in the Great Lakes for integrated science students and current teachers. During the eight day field trip they went undemeath the Soo Locks and visited such locations as Manitoulin Island near Sudbury, Ontario and the Tilden Mine in the Upper Peninsula of Michigan.

In September, Kevin Cole led the mineralogy class on a 4-day trip to Bancroft, Ontario. Awesome minerals were had by all.

In September, Steve Mattox took Integrated Science students to the eastern shore of Lake Superior to study Archean basement, Keweenawan lavas, and deformed Jacobsville sandstone.

In September and October, Peter Wampler led 10 trips on the Angus research vessel for a total of 200 students.

In September and October Pat Colgan led three Saturday coring trips for environmental geology students. Students collected five 2 to 3-meter long vibracores from the ravines during these trips. Students also sampled the cores and helped begin processing them for radiocarbon dating, organic content, magnetic susceptibility, and carbonate content.

In October, Pat Colgan, Pablo Llerandi-Román, and Laura Smart led a one day field trip in geomorphology to study west Michigan glacial and eolian history including stops at Green Mountain Beach, Glen Shores, Michigan, and lunch at Crane's Orchard in Fennville, Michigan. Weather was cloudy, but the rain held off until late afternoon this year.

In October, Larry Fegel, and Figen Mekik led a one-day trip to an Indiana quarry for students. Loads of fossils were collected including a few good trilobites.

In October, John Weber led students in structural geology class on a weekend exercise in the Baraboo Hills of Wisconsin.

In November, John Weber led the historical and field methods students on a trip to the Saint Francois Mountains of southeastern Missouri.

Pat Videtich led numerous students on multiple gypsum mine tours for her various classes.

Pablo Llerandi-Román led students to Aman Park, the waste water treatment plant, Mammoth Cave in Kentucky, the Gypsum Mine, and an Angus Cruise.

Larry Fegel and environmental geology students went on a DJ Angus cruise, studied the Black River from canoes, visited water filtration and waste treatment plants, and studied sand dunes at Rosy Mound Natural Area. Larry's GEO 111 class visited Green Mountain dunes, went down in the gypsum mine, collected fossils and visited the sink holes at Alpena.



Students in environmental geology assemble the vibracoring tripod in preparation to take a core (P. Colgan).

Undergraduate Research Projects 2007

Heather Brusnahan completed her project with John Weber on Shock-metamorphic effects in lattice structure of sphalerite (ZnS) in breccia of the Kentland Crater in Indiana.

Michelle Frasco is working with Steve Mattox on preservice teacher's conceptions and misconceptions about geologic time and changes in life over time.

Eric Laney published a paper with Steve Mattox on modeling the movement of lahars.

Rhiannon Mulligan completed a project with Pat Colgan on sedimentation rates in campus ravines. She presented her results at the Michigan Academy of Science meeting.

Sarah Nagorsen completed a project with Peter Wampler on stream temperature changes. Sarah presented her research at the Geological Society of America Meeting in Denver.

Nathan Noll worked on a project with Figen Mekik on calcite dissolution indices.

Anthony Rodriguez completed a project with John Weber on neotectonics in Trinadad.

Joe Russo is working with Steve Mattox on a math/geology paper predicting when and where the next submarine Hawaiian volcano will begin erupting.

Caitlin Wolfinger is working with Steve Mattox to revise a manuscript on gender and racial bias in children's Earth science trade books.

Patrick Womble completed a project with Peter Wampler on runoff and human-induced changes to the campus ravines system. Patrick presented his research at the Michigan Academy of Science meeting and the Geological Society of America meeting in Denver.

Student Scholarship Awardees

Edward Tremba Geology Scholarship - The Edward Tremba Geology Scholarship Fund is supported by your donations and goes to our outstanding Geology and Earth Science majors each year. Students must have a GPA of 3.00 or higher to be eligible for the award.

Kathryn Barnard Sydney Boos Michelle Bridenstein Eric Hojnacki Joel Kenyon Steve Polkowski Emma Torrensen

Tulip City Gem and Mineral Club Award - The Tulip City Award is provided by the Tulip City Gem and Mineral Club and goes to majors who make significant contributions to the geology department.

Nathan Noll

Geology Field Camp Scholarship Award:

Joe Root Sarah Nagorsen
Matt Camp Steve Polkowski
Andrea Magoon John Vogelzang
Ronald Friend Kirk Perschbacher
Carson Klemp Alex Snider
Naoma Leonard

Please consider a gift to one of these departmental scholarship funds. When giving to GVSU, please specify one of these funds or give to the Geology Development Endowment Fund which is used for special needs in the department such as matching funds for equipment or field trips.

Guest Speakers in 2007

2007 Alumni in Residence

Mike Gallagher was the GVSU Alumni in Residence for the year. Mike gave two talks about his experience in professional geology and about his career as a scientist and educator.

After graduating from Grand Valley, Mike earned his M.S. degree in geology from Western Washington University. His research focused on low-grade metamorphic rocks in northwest Mike's professional career started with the U.S. Washington. Geological Survey where he investigated the tectonic evolution of the continental margin of the Pacific Northwest and slope stability in Hawaii and California. He returned to Western Washington University in 1990 where he continued his research, taught as an instructor, and designed and taught field-based courses for Earth Science teachers. Concurrently with his university duties Mike taught high school science courses for the Bellingham School District and assisted other teachers in integrating technology into their teaching. From 2000-2002, Mike was the Educational Technology Director for a large school district in Pasco. Washington. This position allowed him to have a statewide impact on science curriculum, teaching, assessment, and resource development. In 2002, Mike returned to Michigan where he works as a Science Consultant for Oakland Schools in Waterford. His duties include science program design and assessment, professional development for teachers, and curriculum development and alignment. He worked closely with the state to implement new Earth Science content standards. In 2007, he became a part-time instructor at Washtenaw Community College.

Thanks to Mike for providing insight about his professional career with our geology majors!

International Polar Year

In September, Anders Carlson of the University of Wisconsin-Madison gave the first in a series of lectures in celebration of the 2007/2008 International Polar Year. The series was organized by the Regional Math & Science Department. Anders described how climate change has affected the melting of the Greenland Ice Sheet in the past. One of his main points was that current projections of sea level rise are probably too low because they don't include up to date knowledge on the Greenland ice sheet's dynamic behavior.



Anders Karlson and a friend

In November, Robert Hollister of the GVSU Biology Department gave an excellent lecture on tundra ecology and climate change. Dr. Hollister discussed how positive feedbacks in tundra ecology

could enhance the warming of the Arctic. He also warned that the most recent IPCC report probably underestimates this effect.

Two other lectures in the series will take place in 2008. G. Carleton Ray will speak about his walrus and seal research in the Arctic in January, during the Super Science Saturday hosted by the Regional Math & Science Center. In March, Robert Bindschadler of NASA Goddard Space Center will speak on Global Climate Change and Antarctica. Thanks to the Regional Math and Science Center for organizing and providing funding for these excellent talks!

IRIS/SSA Distinguished Lecturer

In October, Brian Atwater of the U.S. Geological Survey gave two outstanding lectures. Both lectures were featured as part of the department's Earth Science Week series. Dr. Atwater's first talk was entitled, The Orphan Tsunami of 1700, Japanese clues to a parent earthquake in North America. The lecture explained how both historical and geological data provided evidence for how a large earthquake in the Pacific Northwest of the United States resulted in a tsunami in Japan. The second lecture, The Geologic Search for Paleotsunami and Predecessors to the 2004 Sumatra Earthquake, discussed the most recent large earthquake and tsunami in the Indian Ocean region. The lectures were followed by a reception and book signing of Atwater's award winning book, The Orphan Tsunami of 1700.



Brian Atwater (U.S.G.S.)

A special thanks to **John Weber** for obtaining funding and organizing these excellent talks by Brian Atwater.

Earth Science Week

In October, Earth Science week kicked off with an inspiring lecture by Steve Mattox, chair of Geology entitled, Twenty years, four continents, and twelve jobs: Insights on finding a career in geology.

Jim Bodenner and Jacki Van Hall gave a lecture on providing safe drinking water entitled, *The Plastic BioSand Water Filter* TM: International Aid's Safe Water Solution. Mr. Bodenner is the Director of Water Initiatives at International Aid. Ms. Jacki Van Hall is the vice-chair of the Rotarian Water and Sanitation Action Group, Water Initiatives Programs.

The final talk during Earth Science week was by GVSU alum Nicole Heller-Rottet entitled, Case Studies and Experiences of a GVSU Alumni in the Consulting Industry. Nicole Heller-Rottet is a P.G. with AMEC Earth and Environmental Inc of Michigan Brighton, Michigan.

Thanks to Peter Riemersma for organizing the Earth Science Week Lecture Series!

Publications by Students and Faculty

Geology faculty and students published two books, one book chapter, one thesis, a guidebook, and eight peer-reviewed journal articles in 2007. Students are designated with an asterisk.

Zhou S., Xu L., Colgan, P.M., Mickelson, D.M, Wang X., Wang J. & Zhong W. 2007, Cosmogenic ¹⁰Be dating of Guxiang and Baiyu Glaciations. *Chinese Science Bulletin*, v. 52, no. 10, p. 1387-1393.

Llerandi-Román, P.A. 2007, The Effects of a Professional Development Geoscience Education Institute upon Secondary School Science Teachers in Puerto Rico. Ph.D. Dissertation, Purdue University, West Lafayette, Indiana.

King, C.M.*, & Mattox, S.R. 2007, Learning through Inquiry: Weaving Science with Thinking and Literature, Christopher-Gordon Publishers, 301 p.

(Mattox, S.), Petcovic, H., Linneman, S., and Manduca, H. 2007 Geoscience Faculty Discuss Courses for Future Earth Science Teachers, EOS Transactions, v. 88, no. 42, p. 428.

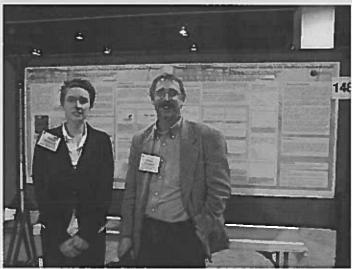
Laney, E.* & Mattox, S.R. 2007, Using Simple 3-D Clay Models to Understand the Paths Taken by Lava Flows, Mudflows, and Pyroclastic Flows: *Science Scope*, v. 30, no. 3, p. 22-25.

Mekik, A.F., François, R., & Soon, M. 2007, A novel approach to dissolution correction of Mg/Ca paleo-thermometry in the tropical Pacific, *Paleoceanography*, v. 22, PA3217, doi:10.1029/2007 PA001504.

Mekik, A.F., Loubere P. & Richaud, M. 2007, Rain Ratio Variation in the Tropical Ocean: Tests with Surface Sediments in the Eastern Equatorial Pacific. *Deep Sea Research II*, v. 54, p. 706-721.

Neal, W.J., Pilkey, O.H., & Kelley, J.T. 2007, Atlantic Coast Beaches: A Guide to Ripples, Dunes, and Other Natural Features of the Seashore: Mountain Press, Missoula, MT, 264p.

Peterson V.L., Lord M.L., & Vandervoort K.V. 2007, Integrating investigation across the geology and physics curricula using the Cullowhee Creek Environmental Field Station: Implementation and Adaptation. CUR How-to Book.



Sarah Nagorsen and Peter Wampier at GSA (P. Wampier)

Wampler, P.J., Schnitzer, E.F., Cramer, D. & Lidstone, C. 2007, Meander cutoff into a gravel extraction pond, Clackamas River, Oregon. Society for Mining, Metallurgy, and Exploration, v. 322, p. 65-77.

Weber, J.C., Brusnahan, H.* & Barnard, K.* 2007, The Kentland Imapct Structure Indiana (USA): A Brief Review. *Impacts in the Field*, v. 3, summer issue 2007, p. 2-8.

Weber, J. & Ritter, J. 2007, Northern Range: Structures, metamorphism, and tectonic geomorphology, Geological Society of Trinidad and Tobago, 4th Geological Conference, Guidebook, Field Trip #2, 28 pp.

Presentations by Students and Faculty

Geology faculty and students produced more than 30 oral and poster presentations at professional meetings in 2007. Student presenters and co-authors are indicated with an asterisk.

Colgan, P.M. 2007, Evidence of subglacial and glaciolacustrine deposition on Grand Valley State University Campus. *Michigan Academy of Sciences Meeting*.

Mulligan, R.* & Colgan, P.M. 2007, Sedimentation rates in ravines on Grand Valley State University campus, Allendale, Michigan. *Michigan Academy of Sciences Meeting*.

Llerandi-Román, P.A. & Krockover, G.H. 2007, Addressing the geoenvironmental and sociocultural contexts in constructivist field-based geoscience teacher education. Abstracts with Programs, v. 39(6), Geological Society of America Meeting, Denver, CO, p.

Mattox, S.R. 2007, Gender and Race in Physical Geology Textbooks: Reinforcing the Caucasian Male Stereotype of Geologists. Abstracts with Programs, v. 39(6), Geological Society of America Meeting, Denver, CO, p. 238.

Mattox, S.R. 2007, Designing Relevant, Field-based Environmental Exercises for K-12 Students, Kentucky Association for Environmental Education Conference, p. 4.

Wolfinger, C.* & Mattox, S. 2007, Identifying Gender and Racial Bias in Children's Earth Science Trade Books, *National Science Teachers Association, Advance Program*, p. 162.

Brower, T.*, Essenmacher, S.*, VanderVelde, C.*, & Mattox, S. 2007, Using Topographic Maps to Explore Volcanoes, *National Science Teachers Association, Advance Program*, p. 114.

Leys, D.* & Mattox, S. 2007, Exploring Students Conceptions and Misconceptions of Volcanoes, National Science *Teachers Association, Advance Program*, p. 154.

Schaefer, Z.*, Arsulowicz, M.*, & Mattox, S. 2007, Connecting modern fish to their ancient ancestors, National Science *Teachers Association, Advance Program*, p. 149.

Essenmacher, S.*, VanderVelde, C.* & Mattox, S. 2007, Exploring Volcanoes Using Topographic Maps, *Michigan Science Teachers Association Conference Program*, p. 37.

Wolfinger, C.* & Mattox, S. 2007, Gender and Racial Bias in Children's Earth Science Trade Books, *Michigan Science Teachers Association Conference Program*, p. 30.

Mattox, S., & Bolhuis, C. 2007, Current Status of Earth Science Teaching in Michigan, *Michigan Science Teachers Association Conference Program*, p. 15.

Bolhuis, C. & Mattox, S. 2007, The Geologic Evidence of an Old Earth, *Michigan Science Teachers Association Conference Program*, p. 18-19.

King, C.M.* & Mattox, S.R. 2007, Learning Through Inquiry: Pairing Science Trade Books and Hands-on Learning, *Michigan Reading Association*.

Mekik, F., Kienast, M., Kienast, S. Francois R., Loubere, P. & Mix, A. 2007, Deglacial sea surface and deep chlorophyll maximum temperature variations in the eastern equatorial Pacific: implications for regional palaeoceanography. AGU Meeting.

Mekik, F.A. 2007, Rethinking the Meaning of Success in Academia: Strategies of a Female Scientist from a Far - Away Land. AGU Meeting.

Francois, R., Mekik, F. & Noll, N.* 2007, Multi-proxy reconstruction of deep sea calcite dissolution from the subtropical South Atlantic Ocean: foraminifer fragmentation, shell weight and Mg/Ca, AGU Meeting.

Bush, D.M., Coburn, A.S., Neal, W.J., Young, R.S., & Pilkey, O.H. 2007, Coastal Processes, Hazards Assessment, and Property Damage Mitigation: The PSDS Experience: abstract, The First Cullowhee Coastal Conference, The State of the Science for Assessing and Mapping Coastal Hazards, July 23-24, Western Carolina University, Cullowhee, NC.

Pilkey, O.H., & Neal, W.J. 2007, North Topsail Island, North Carolina: Low, Narrow, Duneless, and Dangerous: *Abstracts with Programs*, v. 39(6), Geological Society of America Meeting, Denver, CO, p. 95-96.

Bush, D.M., Neal, W.J. & Jackson, C.W. 2007, Puerto Rico's Vulnerable Coastal Communities: Risk, Mitigation, Management: *Abstracts with Programs*, v. 39(6), Geological Society of America Meeting, Denver, CO, p. 241.

Jackson, C.W., Neal, W.J. & Bush, D.M. 2007, The Contradiction of "Low Cost" Shore Protection: Puerto Rico's Gabions and Other Examples: *Abstracts with Programs*, v. 39(6), Geological Society of America Meeting, Denver, CO, p. 241.

Videtich, P.E. & Neal, W.J. 2007, Using Unknown Sand Samples for a Large-Scale, Sedimentation-Stratigraphy Class Project, and Linkage to Introductory Courses: *Abstracts with Programs*, v. 39(6), Geological Society of America Meeting, Denver, CO, p. 555.

Vrabec, B. Stopar, O. Sterle & Weber J. 2007, Active deformation at the northeastern corner of the Adria-Europe collision zone: Inferences from 1994-2006 GPS campaigns in Slovenia, Geophysical Research Abstracts, Vol. 9, 10163, 1607-7962/gra/EGU2007-A-10163, European Geosciences Union.

Weber, J. 2007, Using GPS to help unravel Cenozoic-Recent Carribbean-South American plate motions and plate boundary zone tectonics. *Abstracts with Programs*, v. 39(6), Geological Society of America Meeting, Denver, CO., p.

Ritter, J., & Weber, J. 2007, Variable scales of landscape response to tectonic forcing adjacent the Gulf of Paria, Trinidad and Venezula. *Abstracts with Programs*, v. 39, no. 6, Geological Society of America Meeting, Denver, CO, p.



GVSU Students and faculty meet for dinner during the GSA meeting in Denver (P. Videtich).

Sharman, K., E., Hojnowski, J.,, Giorgis, S., & Weber, J., 2007,, Block Rotation in the Central Range Fault System, Caribbean-South American Plate Boundary, Trinidad. *Abstracts with Programs*, v. 39(6), Geological Society of America Meeting, Denver, CO, p.

Hojnowski, J., Sharman, K., Giorgis, S. & Weber, J. 2007, Neotectonic Kinematics (GPS) vs. Geologic Kinematics of the Central Range Fault System, South American-Caribbean Plate Boundary, Trinadad. *Abstracts with Programs*, v. 39(6), Geological Society of America Meeting, Denver, CO, p.

Brusnahan, H.*, Weber, J. & Reynolds, R., 2007, Shock metamorphic effects on lattice structure of sphalerite (Zns) from polymict impact breccia dikes, Kentland crater, Indiana. *Abstracts with Programs*, v. 39, no. 6, Geological Society of America Meeting, Denver, CO, p.

Barnard, K.*, Weber, J. & Campbell, C. 2007, Analysis of probable K-T microtektites from the Mississippi Embayment, MO., Michigan Academy annual meeting.

Brusnahan, H.*, Weber, J. & Reynolds, R., 2007, Shock metamorphic effects on lattice structure of sphalerite (Zns), Kentland, IN impact crater, Michigan Academy annual meeting.

Weber, J. 2007, Active tectonics (neotectonics) research in Trinidad and Tobago: Review and Synthesis, 4th Geological Society of Trinidad and Tobago Conference, Port-of-Spain, Trinidad.

Ritter, J., & Weber, J. 2007, Recording Quaternary Subsidence and Uplift Associated with a Pull-Apart Basin: Geomorphology and Quaternary Geology of the Northern Range, Trinidad and Paria Peninsula, Venezuela, 4th Geological Society of Trinidad and Tobago, Port-of-Spain, Trinidad.

deVerteuil, L., Weber, J. & Ramlal, B., 2007, New Digital Surface Geological and Chronostatigraphic Maps of Trinidad – field data and GIS Support Revisions and Reversions, 4th Geological Society of Trinidad and Tobago, Port-of-Spain, Trinidad.

Vandermer, A.*, Rodriguez, A.* & Weber, J. 2007, GIS and GPS support for neotectonics and geologic research, Trinidad, West Indies, 1st annual West Michigan Undergraduate Research Conference, Fall 2007.

Faculty and Student Grants in 2007

John Weber - American Chemical Society, Petroleum Research Fund (2003-2007), Active Deformation and Seismic Risk in Slovenia from Global Position Measurements.

Heather Brusnahan (funded) and Esther Posner (pending) - Michigan Space Grant Consortium, Undergraduate Fellowships, meteorite impact crater research. Anthony Rodriguez - McNair Fellowship, (funded). Student advisor is John Weber.

Pablo Llerandi-Roman and John Weber were awarded a grant from the Padnos International Center to help them develop a summer field course in Puerto Rico and Trinidad titled: *The Caribbean: Collision of plates, fusion of cultures*.

New Department Equipment

During the summer of 2007 the department received approximately \$70,000 in funding from the Dean's Office to purchase microscopes. The microscopes are used in mineralogy, petrology, sedimentology, stratigraphy, and structural geology classes.

Alumni News

(News received since January 2007)

Rolf Woerns (1970) recently retired from full time teaching in Canada. He remembers Dr. Lucke, Prof. Lefebvre, and Prof. Mactavish and Grand Valley State College. Rolf lives in Ayr, Ontario.

Roger Haskins (1973) works for the Bureau of Land Management in Virginia. He is married to Susan Marcus (1973) and has a daughter name Genevieve.

Susan Marcus (1973) works for the U.S. Geological Survey and works as a Native American liaison and doe education and science programs for Native American schools. She is married to Roger Haskins (1973). She has a daughter named Genevieve who recently graduated from high school.

Julie Beaton (1977) is the Project Manager for the City of Grand Haven.

Sheryl (Hoving) Lentini (1977) recently moved to Houston with her husband Mike and her daughters Mia and Mari.

Gregg Swayze (1982) is working for the U.S. Geological Survey in Denver Colorado. He researches how spectroscopy can be use in environmental issues. Gregg lives with his wife Sheryl and kids Neal (11) and Jeff (8).

Patty (Braun) Fasbender (1990) leads adventure trips in the U.S. and Canada, and is a member of the West Michigan chapter of the National Speological Society. She is finishing up a Masters Degree in experiential learning at Ferris State University.

Colin Plank (1997) is working on a Ph.D. at the University of Minnesota. Colin and his wife Lisa had their first baby Elizabeth Page in June.

Sarah (Tourre) Korose (1998) stopped by for a visit in October. She works for URS Corporation in Sacramento, CA.

Nicole Heller (1998) was married to Jonathan Rottet in May. They went to iceland for their honeymoon and saw glaciers,

volcanoes and waterfalls! She continues to work for AMEC Earth & Environmental in Brighton Michigan. Nicole gave an excellent Earth Science week talk in October, Thank You!

Andrew McCarthy (2000) just finished his Ph. D. at the University of Arizona, and he is working for ConocoPhillips in Houston Texas. He sends his regards and hopes Kevin is well soon.

Beth Ter Haar (2001) is working for Tier 3 Inc. a geospatial consulting firm outside St. Paul, Minnesota. Recently, she travel to Mumbai India as a GIS trainer. She is living in Stillwater, Minnesota.

Julie Groenleer (2004) is back in Grand Haven after recently finishing her M.S. Degree at the University of Idaho.

Nate Boersma (2004) recently finished his M.S. degree at the University of Idaho. He is now working for Hess in Houston, Texas.

Brent Ritchie (2004) just completed his M.S. Degree at the University of Alaska, Fairbanks and is now working for RMT in Ann Arbor, Michigan.

Shaun Lehman (2004) is working for MACTEC Engineering in Raleigh, North Carolina.

Mike Shelton (2004) is working as a field geologist for the Michigan Department of Environmental Quality in Kalamazoo.

Matt Kreuyer (2006) is working for BLDI, an environmental consulting company in Grand Rapids.

Jim Rinke (2007) is working for ARCADIS U.S. Inc in Novi Mcihgian as a geologist.

Ron Friend (2007) is working for Earth Tech in Livonia, Michigan.

Carson Klemp (2007) is working as a geologist in Silver City, New Mexico with Freeport-McMoRan Copper and Gold Inc.

Joel Kenyon (2007) is working for Lakeshore Environmental in Grand Have, Michigan



Geology students and faculty at the 3rd annual chili cookoff organized by Peter Riemersma (P. Riemersma).

From the Geology Archives

A Bit about the Early Days of the GVSC Geology Department and a Call for Information

Had the first president of Grand Valley State College, James H. Zumberge, not been a geologist, GVSC might not have had a Geology Department. Zumberge came to the fledgling campus in February, 1962, and stayed until August, 1968. He was a well known, glacial geologist who had done considerable work on Antarctica. In fact, during his tenure as President of GVSC he published a lab book for physical geology, several geology papers and book chapters, and reviewed several geology books. In addition, Zumberge is listed as a member of the GVSC Geology Department in the 1966-67 and 1967-68-69 catalogues, although there is no evidence that he actually taught any courses.

To those of you who were around in the early days of the department, who were your professors? Did Zumberge ever teach a course that you know of? Please send us information and stories about the early days. To help get your memory working, below are some excerpts from over two pages of reminiscences sent by Roger Haskins (Geology, 1973). Thank you, Roger!

"I arrived in the fall quarter of 1969. John Lucke had the chair, with a staff of Richard Lefebvre and John McTavish. In my second year, the staff was increased by two with Jack Henderson and William Neal. Shortly after this, John McTavish left and went to Thomas Jefferson College. Johnny taught physical, historical, geomorphology, air photo interpretation and occasionally mineralogy. He had a good sense of humor, but was of the "old School" in his beliefs and demeanor. I remember him throwing a student out of class for refusing to remove his hat in the room. His tiger suit that he acquired while at Princeton was a legend. It always appeared at Geology Club parties and other school events.

I ran an evening tutorial and lab session two nights a week in the Geology lab in the old Loutit Building from 7-9 pm for those who needed extra help or just needed to catch up on their lab work. It was fun, but the coffee pot suffered from a severe case of over use. In my second year I was employed by the Department to help open up and assist in the early morning lecture and lab session. This went well for 5-7 weeks until my house caught fire in the early morning and while we got the fire out, my dad was badly burned so we took him to the hospital for treatment. McTavish had me fired for not showing up that morning. John Henderson hired me back with the understanding that I would cut and prepare orientated thin sections for him for structural analysis. As I had been recently in charge of the rock lab, it was no problem, except his quartzites where very hard on the saws and grinders.

Dick Lefebvre expanded my assignment to make a reference suite of thin sections for the Department also, so I had a busy, but enjoyable time of it for the remainder of my time at GVSC. I worked in a transmission shop part time as well. When a pump or grinder gave out, I took it to the transmission shop and repaired it there with the shop's machinery. One of my more interesting jobs was to cut thin sections of basalts that were 12 days old. Dick had gone to Iceland at instant notice to observe the eruption of the Kirkafetal volcano. Along with his home movies, he brought back several pieces of the basalt. I was wondering if they were still plastic on the inside (they were not).

Field trips were well organized and usually occurred over spring break. The northern Michigan trip was memorable for several reasons. One was Dick Lefebvre's use of the yellow Checker long wheel based limo (it had four doors on each side) as a race car on the narrow winding roads of the Upper Peninsula. I still believe that half of the time at least one if not two wheels where hanging over the edge of a cliff. Afterwards we changed the name of the vehicle to the 'Flying Banana'.

The second is that I came down with a serious fever that would not break. So three of us, AI Feinstein, Bob Solenski (Vietnam War vet), and I, booked a room in a rickety old hotel in Ishpeming. The owner had no rooms, but allowed us the use of a room used by four miners who worked the night shift at the iron mine. The owner would not be responsible for any bodily harm to our persons. Bob placed the GVSC van under the second floor window of our room. My fever broke that night finally, and the miners returned at 6 a.m., very unhappy with the circumstances. We had slept in our clothes, so we beat a hasty retreat out the second floor window onto the top on the van, and departed forthwith.

The third is that I met my future wife, Susan Marcus (TJC Geology, 1973) on the trip. Larry Austin and I gave her a bad time, but she dished it out in return. It snowed one night, so Sue pulled Larry's and my sleeping bags over hers (we were still sound asleep), and therefore she did not have a wet night.

Another field trip was led by Jack Henderson to the Sudbury mining area of Ontario. We examined shatter cones around the Sudbury Basin (evidence of meteorite impact). Jack used to work for Falconbridge Mining Co., which operates deep nickel mines (5,000 to 6,000 ft) in the basin. We scheduled an underground geology tour at the 2,500 level. Someone let slip that this was our first time underground. The cage operator let us free fall for 50% of the distance, then put on the brakes. So much for breakfast that morning!"

So how about it? If you were at GVSC in the 1960s or early 1970s, please tell us who taught what and send us your stories. You can respond to me by mail or by email (videticp@gvsu.edu).

Thank you very much!

Please send the following information about yourself in one of three ways:

Email to Linda Noel or to Janet Potgeter at: geodept@gvsu.edu

Mail it to us @ Geology Department, GVSU, Allendale, MI 49401

We have an online form for direct electronic submission at: http://www.gvsu.edu/geology/

Name: (If your name has changed since you were a student here, let us know your previous name also)

Graduation year:

Employment/Life status or changes:

Contact information* (address, email, phone)

 Note that we will not post contact information on the web site apart from your city of residence – please let us know if you do not want us to share your contact information with alumni or friends who request it.

