for an all-day hike on hours-old lava flows from the currently active Kilauea East Rift—in places the radiant heat was almost overwhelming. One participant's shoe caught on fire. In December, I presented the Fisher Caldera story at the AGU meeting.

❖ Clark Johnson

The dust finally settled (literally) in 2000, when the renovation project for the Radiogenic Isotope Lab was complete. *(See a lab dedication article on page 33.)* Funding for this nearly $1M project was supplied by the National Science Foundation ($250K), NASA ($250K), the UW-Madison Graduate School ($200K), the department's Lewis G. Weeks fund ($170K), the UW Department of Engineering ($75K), and the College of Letters and Science ($25K). The new facilities include a new mass spectrometer that will greatly expand the range of elements that may be studies for isotopic variations, as well as an expansion of the original clean chemistry lab. In March, the new mass spectrometer lab (room 372 Weeks Hall) was completed, and installation of the new instrument, as well as re-installation of the original instrument (purchased in 1988), was complete by early summer. In early fall, expansion of the original clean chemistry lab (room 375 Weeks Hall, built in 1988) into the former mass spectrometer lab was complete, which provided new areas for working in a non-metal environment. The new lab places the UW-Madison facility at the top in the world in terms of intermediate- to heavy-mass isotope geochemistry. New projects using the new capabilities are already underway, including Fe isotope work, a collaborative tectonic-provenance project with Prof. Basil Tikoff, and new projects are planned with Prof. Brad Singer. You can check out the new labs and the renovations at the Radiogenic Isotope Lab web site at: http://www.geology.wisc.edu/~unstable/.

Y2K also marked the arrival of new faces in the group, as well as continuation of existing work. Dr. Brian Beard played a major role in the new lab design and equipment installation, and continues to be the primary reason why the place keeps going. Post-doc Joe Skulan continued his work on Fe isotope geochemistry, as part of our work with the NASA Astrobiology Institute, with the goal of developing Fe isotope geochemistry as a "biosignature" for early life on Earth or other planets. Graduate students Tim Zeichert and Garret Hart continued their work on the Cascade volcanic arc, with Garret's focus on Os isotopes, and Tim's effort aimed at "finishing that old thesis". Two graduate students working with Alan Carroll on the Green River basin, Meredith Rhodes and Jeff Pietras, continued. New faces included post-doc Kent Ratajeski, who is working with Johnson and Tikoff on the "Baja-BC" controversy, where large-scale terrane translation has been proposed off the western margin on North America in the late Cretaceous to early Cenozoic. New graduate students Tom Lapen and Nancy Mahlen joined the group to work on the ultra-high-pressure terranes of the western Alps, in collaboration with Johnson and former UW-Madison faculty member Lukas Baumgartner. Liz King joined the lab crew for a short time, doing Sr isotopes as part of her thesis with Prof. Valley. Departures included Dr. Ron Schott, who left to take a teaching position at Western Kentucky University.

❖ Louis J. Maher

I taught Geology 101 (General Geology) and 722 (Quaternary Pollen Analysis) during the spring term and took a couple of school buses of students on the Baraboo field trip. One bus's brakes were found faulty at the lunch stop in Baraboo, so 64 of us got on the remaining bus for a careful drive to Ableman's Gorge. It was so crowded the students said it was fun. A replacement bus arrived before we had finished at Rock Springs.

The rest of the year was delightfully occupied with a combination of a state-funded sabbatical and a Weeks Leave. I spent some time in the Colorado Rockies. Jane and I camped on a drive around Lake Superior. During the fall we flew to England for a week before going on to France for three weeks. We arrived in England just at the close of their petrol strike; the one in France had been settled before we got there. We had an excellent time in the Lot and Dordogne River valleys, and I visited a couple of caves with prehistoric art.

During the summer I was able to create a computer program that allows a pollen analyst to compare his/her own pollen site with a library of modern pollen records that are on file in the North American Pollen Database at the National Geophysical Data Center in Boulder, Colorado. I selected 1924 sites from the eastern lowlands of North America and made them into modules for convenient use in finding modern analogs to the fossil spectra. I gave a presentation about the program at the Annual Meeting of the GSA in Reno in November. The program is called MODPOL.EXE, and it is available over the Internet at http://www.geology.wisc.edu/~maher/. You can pick up a self-expanding Zipped version of the whole package as MODPOLZ.EXE or you can read an illustrated article about it in the file named MODPOL.HTML.

After twenty years it became necessary to renovate AB20, the Laudon Lecture Hall. I assembled bids for putting in a new carpet, re-doing the sound absorbing panels on the north wall, and upholstering the seats.

Department artist Mary Diman recommended we use blues and grays for the fabric to blend with the brown walls. Workers arrived just at the end of the last class day of the fall term. Ben Abernathy and Bill Unger did a huge amount of work readying the room for the workers.

❖ Dave Mickelson

The glacial geology program continues to be very active. Our Southern Laurentide Ice Sheet (SLIP) is in the second year of a three-year grant. We are mapping landforms (mostly done by former PhD student, **Pat Colgan** and grad student **Kelly LaBlanc**) in the area covered by the LIS and using them to ground truth a computer model that has been adapted by **Paul Cutler**. Unfortunately for us, Paul has taken a position with the National Academy. Congratulations, Paul! We were fortunate to obtain funding on another NSF grant to work in Norway with **Eiliv Larsen** and others on reconstructing ice thickness during the glacial maximum. **Matt Hildreth** finished his thesis on using preconsolidation to reconstruct ice thickness there. **Cornelia Winguth**, who did her PhD on sediments in the Black Sea, will work on that project, which begins this spring. Other on-going projects include a shore erosion study through geological engineering, supervising two students **(Jeff Munroe and Eric Carson)** who are working in the Uintas (**Danny Douglass** finished his thesis there in June), and mapping of Door County with another grad student, **Scott Brown**. **Dawn Chapel** finished her thesis on central Sheboygan County last spring and hopefully present student **Anders Carlson** will finish mapping the southern part next summer. **Mike Kaplan**, a Weeks postdoc working on the chronology of moraines in Argentina with Brad Singer has added expertise and enthusiasm to the Quat group since arriving in September.

As I look back over 30 years of research, I realize how many things we don't understand about the vertical and horizontal extent of ice during the last glacial maximum. In addition to estimating ice thickness in the two of the projects mentioned above, I am considering starting research on the same question for the Tibetan Plateau. Vin and I spent a wonderful three weeks in China and Tibet last June and hope to go back. Last summer, we also had a great modern glaciers class in Iceland. Eighteen of us spent two weeks exploring ice margins in southwest Iceland. Formerly on these trips we used cars, but this year a big, four-wheel drive bus made interesting places more accessible. A number of former Quats donated money to help pay expenses of students. Thanks to **Kent Syverson, Doug Connell, Pat Colgan, Alan James, Bill Simpkins, Lisa Bona, Larry Acomb, Scott Stanford** and **Nelson Ham** for helping with student expenses. Debris incorporation and transport in glaciers also continues to interest me. In March I attended a field conference organized by long time friends **Dan Lawson** and **Ed Evenson** and others at the Matanuska Glacier.

The Geological Engineering Program continues to flourish. It was accreditation year for the Engineering School, so that was a time consuming job! I enjoy being Chair, but hope we won't have another year that is as work intensive as the last. The accreditation site visit in November prevented my attending GSA in Reno, but I hope to see many of you in Boston next fall.

❖ Nita Sahai

Fall 2000 was my first semester as an assistant professor. It has been an exciting and challenging transition from post-doctoral researcher to professor, and from the East Coast to the Mid-West. So, first of all, I would like to thank the faculty, staff and students who have welcomed me to this excellent department and have helped me settle in. Since then, I have had many opportunities for personal growth in terms of learning about advising students, finding time for activities (other than my own research) such as teaching, advising, working on committees, and setting-up the labs.

As some of you may already know, my research interests span the fields of geochemistry, biochemistry, and materials science. I am interested in a molecular-level understanding of reactions between organic and inorganic compounds in water, at surfaces of minerals, and as effected by microorganisms. Such reactions are of fundamental geochemical interest and also have fascinating applications in such diverse fields as environmental, clinical medicine and materials science. Our approach is to use both theoretical modeling (classical thermodynamics and quantum chemical molecular orbital theory) as well as experimental techniques (IR/Raman, x-ray Absorption, and NMR spectroscopy, and analytical chemistry). One of the major thrusts of our research is the innovative application of molecular orbital calculations as an effective new tool for studying biomineralization and interfacial reactions. For example, we are currently studying how diatoms precipitate out amorphous silica from ocean water to build their tests in such a fascinating diversity of physical shapes and forms. Diatoms are algae (yes, they are microbes just as much as bacteria, fungi, viruses and protozoa are!) that are responsible for cycling 6.7 gigatonnes of silicon annually, and thus play a vital role in the biogeochemical cycling of the most abundant cation at the earth's surface. As the mineral that constitutes our bones and teeth, apatite is the