

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