Norlene Emerson and Charlie Byers at GSA.

will see that many this year. I have agreed to take over the camp directorship for the next few years (I am sharing it this summer) and I hope that we can sustain and regenerate the interest in this traditional but I believe still very important capstone experience for most of our majors in the years to come.

My teaching schedule continues to be full and varied. I taught my introductory ore deposits class in the fall and we took a fun field trip to the Ozarks to visit current and historic lead and iron mines. The combined Earth Materials course continues to be a real challenge to cover the material in one semester—I am thinking about literally "writing the book" so that at least a resource would be available for the way the course has evolved.

A quick update on my family. Jason graduated from Carleton College a year and a half ago and is employed by Epic computer—amazingly enough in Madison. Peter is a junior computer science major at Grinnell College. Although she swore she wouldn't do it, Karin ended up enrolling as a freshman at Carleton, absolutely loves it, and continues to burn several candles at both ends simultaneously. We are happy that our kids continue to do well and certainly know where the paychecks go. Peter and Karin continue to swim successfully and this keeps them lean and TALL, both the boys are substantially taller than I am. Kris continues to be convinced that she has the best job in the world as the librarian at our kids' high school a mile from our house.

I reported last year on our kitchen renovation project and can now report that we still absolutely love the result especially the dark green charnockite counter top from coastal Brazil. I certainly learned a lot about choosing "granite" for a kitchen and would be happy to provide advice if you are considering a similar project.

Hope you have a safe and healthy 2005.

Charlie Byers

In 2004 I was the chair of GSA's History of Geology Division. This was an exceptional learning experience. Division chairs also serve on the Joint Technical Program Committee, which arranges the meeting. The "committee" is a virtual entity, as all the session proposals and abstracts are reviewed via email, under an intimidating timetable. Having seen the complexity of how a GSA meeting is put together, I will never again complain about overlapping sessions. For the HoG Division, I set up and chaired the annual symposium, which focused on one of my pets, the history of the concept of layer-cake stratigraphy. We had talks describing the origins of the idea in the early Nineteenth century, and descriptions of examples of the layer-cake interpretation that flew in the face of the prevailing facies model during the 1950s and 60s. We concluded with presentations on layer-cake stratigraphy in its modern guise, as part of event and sequence stratigraphy. Many authors enjoyed extending the pastry metaphor, with references to frosting, petits-fours, etc. At the Denver meeting I also presided at the HoG luncheon and got to hand out the Division awards.

Last spring I taught Geology 101 for the very first time, sharing the duty with **Brad Singer**. It was fun to revisit topics that I had never tried to organize in a teaching framework or even thought about very much in the decades since I first learned them (What? You mean there's been research in geomorph!). I am currently on sabbatical, converting my Evolution and Extinction course to a web-based format. On the home front we just passed a big milepost, as Wesley J. Byers turned 18. Can't imagine that I have a grown-up kid; does this mean I'm old?

Alan Carroll

During 2004 my research group continued to work on a variety of projects related to sedimentary basins, with the largest emphasis on the Green River Formation. Several students finished (or nearly finished) degrees and have accepted new jobs. **Ben Bymers** completed his MS on the Gualala basin, and is presently working for the relatively new company EnCana in downtown Denver. **Martin Shields** finished work for his PhD on the East Java Basin, and continues to work for Fusion in Houston. **Marwan Wartes** is close to finishing his PhD, and meanwhile has accepted a position with the Alaska Division of Geological and Geophysical Surveys in Fairbanks. I am eagerly awaiting his final thesis chapters, promised to arrive soon!

I've also taken on several new students. **Lauren Chetel** has begun working on a Green River Formation PhD after finishing her MS with **Toni Simo**. **Amalia Doebbert** has starting working on stable isotopes in the Green River Formation for a MS, in collaboration with Page Chamberlain at Stanford. We've already discovered something surprising, an approximately 6 per mil negative shift in $\delta^{18}O$ that coincides

with a lake-type boundary within the Laney Member. I'm also advising a senior thesis project by **Ashley Hubbard** that has expanded on the discovery by **Jeff Pietras** of a dramatic increase in $^{87}Sr/^{86}Sr$ at the boundary between the Wilkins Peak and Laney Members (work being done in collaboration with **Clark Johnson** and **Brian Beard**). This sudden shift corresponds exactly to the reappearance of fish fossils, absent during Wilkins Peak deposition. Both of the these geochemical changes appear to record major drainage-capture events that significantly altered the downstream depositional history of Lake Gosiute. These studies point to an important new use of lake deposits, as paleo-geomorphic archives within evolving orogenic systems.

Justin Gosses has begun a MS on Eocene caldera-lake deposits in Patagonia, which is co-advised by **Brad Singer** and involves collaborations with Peter Wilf at Penn State and two different groups in Argentina. In addition to the scientific benefits, I hope that this project will provide future opportunities to escape Wisconsin winters for a little southern-hemisphere fieldwork. Other highlights of 2004 include a trip to Baku (Azerbaijan) for the AAPG Hedberg conference on lacustrine sandstone reservoirs, and fieldwork in the East Java basin with Toni Simo and new MS student **Mei-mei Tang**. We expanded on our past work in Java to visit to the adjacent island of Madura, famed for its bull races.

Chuck DeMets

My work in 2004 consisted of a satisfying blend of research, advising, teaching, and field work. I spent early 2004 working with Salvadoran seismologists to build a nationwide GPS network in El Salvador, where the volcanic arc is actively sliding along the trench in response to oblique subduction. Shortly after returning to Madison, my new graduate student **Francisco Correa** arrived from Mexico City to begin his PhD study of the earthquake cycle in the state of Oaxaca in Mexico.

King of the hill at King City—one of Chuck DeMets's continuous GPS stations in California.

In March, I traveled to Jamaica with fellow faculty member **Basil Tikoff** to introduce him to my long-term study of the island's neotectonics. The hard field days in Jamaica required lots of fuel, ingested in the form of Jamaican jerk, seafood, and of course, beer.

In May, I hosted a one-month visit by Indian scientist **Rajendra Drolia** to begin our collaborative study of the effects of a diffuse oceanic triple junction on the Central Indian Ridge. Drolia returned for another month in September, this time overlapping **Dr. Serguei Merkouriev**, a Russian scientist with whom I am studying the Carlsberg Ridge in the northern Indian Ocean. Keeping up with the collective demands of two foreign scientists while teaching and handling all of my regular duties proved to be a heavy load, one that was thankfully over in mid-October.

My scientific highlight of 2004 was a fruitful collaborative study of the creeping segment of the San Andreas fault, with Basil Tikoff and our co-advised student **Sarah Titus**. Results from that work will be published in *Geology* in early 2005. I also completed a decade-long capstone paper about my kinematic research into the movement of the Indian plate over the past 20 Ma, to appear in *Geophysical Journal International* in early 2005. Post-doc **Mike Brudzinski** and I made a great deal of progress on the hot new topic of transient surface deformation associated with deep aseismic fault slip beneath Mexico, which Mike presented at the fall AGU. My graduate students **Stuart Schmitt** and Francisco Correa-Mora continued their cutting-edge modeling of surface deformation along the seismically active Pacific coast of Mexico. These efforts collectively laid much of the groundwork for future papers about the earthquake cycle and subduction mechanics in much of southern Mexico.

John Fournelle, left, has been busy applying Monte Carlo computer models to difficult problems in electron probe work. Here John and colleague, Xavier Llovet (U of Barcelona), work with PENELOPE at a November 2004 NIST conference in Gaithersburg MD.