



*At a workshop in October in Lead SD, a group of earth scientists and nuclear physicists tour the Homestake Mine. Herb Wang is on the right. Photo courtesy of Herb Wang.*

list of speakers and course readings can be found at [www.ies.wisc.edu/forum.htm](http://www.ies.wisc.edu/forum.htm). I returned to this year's NABGG conference to describe the course.

In October the nuclear physicists held a workshop in Lead, SD to explore using the Homestake Mine for neutrino detection. A group of earth scientists led by Lawrence Berkeley Labs was also in attendance. I especially enjoyed a morning tour of the mine down to the 7400 foot level. (See photo above.)

I continue in my role as associate dean for natural sciences and completed my term as faculty director of the Honors Program. In the spring and summer, I and Pat Simms, a reporter for the State Journal, served as advisors to a group of students who revised a handbook devoted to guiding a student to getting the most out of UW-Madison.

Recent PhD's Dave Hart and Tim Masterlark have taken positions with the Wisconsin Geological Survey and USGS EROS data center in Sioux Falls, respectively. Kyle Lewallen continues to do well at Exxon. He sent me e-mail from a ship in the North Sea. Current student Tyson Strand is engaged in creative modeling and theory development of two-phase fluid flow at the pore scale. He presented some of his work at the U.S. Rock Mechanics Symposium in Washington, D.C. in the summer.

#### ❖ Klaus Westphal

Besides planning and managing the museum exhibits and the educational outreach programs, I taught the introductory course "Life of the Past" which, every semester, acquaints about 45, mostly non-science majors, with the history of life on earth. See also the Museum's "Annual Report" on page 67.

## Faculty Publications in 2001

Please see individual faculty web pages for listings of faculty publications for 2001, at <http://www.geology.wisc.edu/people/faculty.html>

## EMERITUS ACTIVITIES—2001

### ❖ C.R. Bentley

Ice Coring and Drilling Services (ICDS) has taken up most of my work time (I do allow myself some time off!). Work is still progressing on the development of the "Enhanced Hot Water Drill" (EHWD) for the IceCube project at South Pole, but the actual emplacement of the neutrino

detectors in the ice there will not begin for several seasons still.

This past season (2001-02) we supported Paul Mayewski's third season of ITASE traversing and drilling on a route from Byrd Station to old Siple Station at the foot of the Antarctic Peninsula. A team of drillers produced three holes for emplacement of a new seismograph system in the deep, quiet ice several kilometers from Pole; they will return next season for a final reaming. We also built and tested a brand-new air-driven shot-hole drill for use by Sridhar Anandakrishnan for his West Antarctic exploration seismic program next season. Some off-season work will still be required to bring the new drill up to Sridhar's specs. We provided a drill for a fascinating New Zealand project on Victoria Lower Glacier where the local climate is sensitively balanced between Ross Sea and East Antarctic plateau influences. Last but not least, we are beginning on the design of a new deep coring drill for the WAISCORES project on the West Antarctic ice divide (i.e. between the Ross and Amundsen drainage systems).

My GLAS work still goes on—we now anticipate a launch of ICESAT carrying the laser altimeter later this year. Former graduate student Ben Smith, now in his doctoral program at the University of Washington, is the primary "doer" for me on this project.

### ❖ Carl Bowser

My second year of retirement, and things get no less busy. Geology and geochemistry continue to dominate my life, but the camera lens is assuming a larger and larger role. Blair Jones and I have finally gotten acceptance for our long awaited "treatise" on mass balances in weathering of silicate dominated terrains. In final revision, we hope to have it out the door in time for publication in the American Journal of Science either this year or early next year. Some of the work will be

summarized in the 6th annual GES (Geochemistry of the Earth's Surface) meeting in Honolulu this May. The long awaited book on the ecology of northern lakes (*Lakes in the Landscape*) is due to go to the press in a couple of months, and I've had a heavy hand in the section on hydrology. One of my aerial photos is scheduled to make the cover of the book.

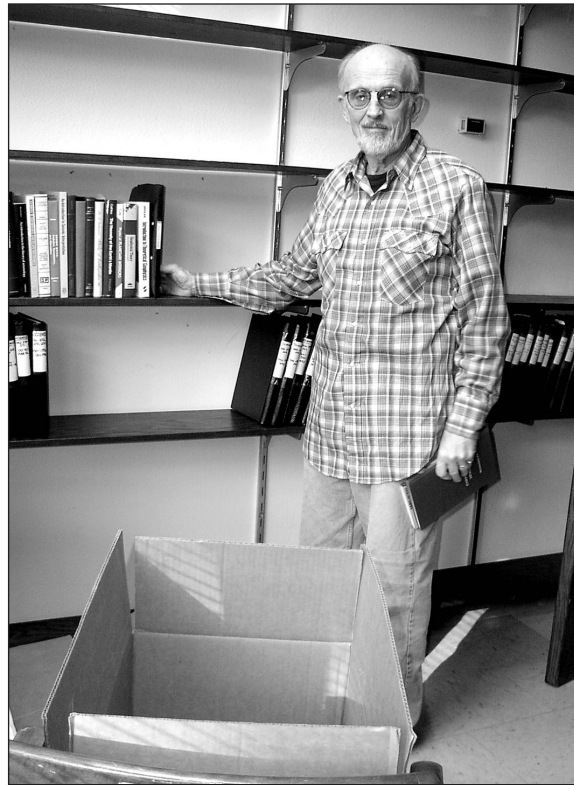
Retirement allows me the freedom to travel, and this past year found me in the Grand Canyon, Phoenix, New York, Northern Mexico, Northern Wisconsin, Cleveland, Niagara Falls, Rhode Island, Santa Fe and Albuquerque (almost all of it driving). Judy and I enjoy driving, and it affords us time to stop and see the sights and spend a few creative moments capturing the countryside on film. Summer plans include a trip down the Colorado River (with the Dotts and a number of other geologists), and who knows where else.

My work in photography has moved to a much more serious level. Now in my second year as a board member of the Center for Photography at Madison I head up the landscape group that meets monthly to share and critique our photographs. Having spent numerous nights helping build a darkroom at the facility and being heavily involved in printing and showing work as part of Photofest 2002 I really enjoy this new and very challenging endeavor. During the month of March I had photos hanging at Ancora's Coffee Roasters on King St., the Madison Civic Center, Samantha's Sunporch Café, and the Camera Company. The Ancora's venue is a show authored by myself and another landscape photographer friend and is my first public fine art photography show. Taking the picture turns out to be only a small part of the business of photography. A lot of time at custom photo finishers, working in the darkroom or in front of a computer mastering the complexities of Photoshop, printing, framing, matting, and trying to keep track of an ever growing collection of 35 mm, 120 and 4" x 5" negatives with a highly disorganized filing system takes a lot more time than I realized. The good news is that a few other people have found my work interesting enough to pay good money for it. I continue to get encouragement. Buy me now while I'm still inexpensive!

Now that Judy has retired (last June) we find more time to visit our daughters and their families. I run a few miles several times a week keeping me in good enough health to enjoy the physically demanding fun of playing with six grandchildren.

#### ❖ Clarence S. Clay

It has been fun to watch the response of the community to radical innovations in the science of our Earth. Almost as a generalization, new classes of data can present the world in different ways and then the same old world looks different.



*On the move—Charlie Bentley took over new office space this fall.*

About 50 years ago, I took a job with the Exxon (Carter) oil research laboratory and I moved from atomic physics to geophysics. This was before seafloor spreading, global tectonics, and statistical digital data processing. The primary papers in signal theory were being written in the 1950's. Consider an example of industrial fore sight: a joint group of oil companies stopped funding signal theoretical research by Norbert Wiener's students at MIT. A few years later, the same oil labs were fighting to hire Wiener's students.

Commonly one person, often an outsider, is ahead of the pack and their work is ignored, forgotten, or becomes a joke. I skip a few details and the contributions of F.J. Vine, D.H. Mathews and L.W. Morley in the early 1960's, and go back to the last century.

Alfred Wegener, a meteorologist, published "The origin of continents and oceans" in 1915. The validity of continental drift was argued and even voted down. Many proper earth scientists rejected it. Arthur Holmes was an exception. I moved to a Columbia University Hudson Labs of oceanography in 1955. New instruments such as continuous seismic profiling systems and proton magnetometers became standard instruments for oceanographic ships. Under the strong direction of M. (Doc) Ewing, the Lamont ships took miles and miles of seismic, magnetometer profiles and hundreds of bottom cores. Their profiles showed that the oceanic crust was