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The Clay Minerals Society

SANTA FE, NEW MEXICO, 2–7 JUNE 2007

The Clay Minerals Society annual meeting was back on US soil this year, after a very successful visit to France in June of 2006. Randy Cygan and his team (George Guthrie, Jeff Greathouse, and Dewey Moore) hosted our 44th annual meeting, attracting some 170 delegates to beautiful Santa Fe, New Mexico. This region of New Mexico has a long cultural history as a result of settlement by Native Americans dating back tens of thousands of years and by Spanish settlers dating from the 16th century. Thus Santa Fe is a unique blend of modern Native American Pueblo and Spanish cultures, both of which rely heavily on the unique properties of clay minerals found in the region for building materials (primarily adobe bricks) and artistic expression (pottery and pigments). The historic La Fonda hotel provided a very eye-pleasing and comfortable setting for the conference. There has been a hostelry (or fonda) of some shape or form on the La Fonda site since the early 17th century, and Santa Fe is the oldest state capitol in the United States.



La Fonda – the venue for the CMS 2007 annual meeting

This year, in addition to numerous topical oral and poster sessions, the meeting featured a workshop, two field trips, a number of events for accompanying persons, and several important administrative events.

The scientific sessions kicked off on Monday morning with words of welcome from the mayor of Santa Fe, David Coss, from the president of the Society, Richard Brown, and from Randy Cygan (who did a vox pop on knowledge of Santa Fe—it is very important that you know whether you

prefer red or green chili in your food when ordering at any of the many eateries in Santa Fe). But it was clear to all present that the most rousing welcome was given by a local group of Native American dancers (the Ice Mountain Dance Group from San Juan Pueblo). Nine dancers, ranging in age from 3 to 18, performed a buffalo dance, which provided the perfect backdrop to the opening talk by Paul Schroeder, recipient of the Marion L. and Chrystie M. Jackson Mid-Career Clay Scientist Award. Paul's very enjoyable talk, "Life at



The buffalo dance



Richard Brown presents The Marion L. and Chrystie M. Jackson Mid-Career Clay Scientist Award to Paul Schroeder

the Edge: Clay Mineralogy, Microbiology, and the International Kamchatka Microbial Observatory," began with a discourse on the challenges met by an international, interdisciplinary group of scientists working in Kamchatka. Clearly they're managing just fine, considering the excellent talk that followed.

The "Pioneer in Clay Science" lecture was given by Dr. Spencer G. Lucas, the acting director of the New Mexico Museum of Natural History. In his talk "Twenty-five Years Plus of Research on Impacts and Mass Extinctions," he analyzed causes of the four or five major extinction events in the history of life. He argued that only the end-Cretaceous event was the result of a meteorite impact. With excellent graphics, humor, and rapid-fire delivery, he impressed the audience with a topic a bit different from what is usually heard at a CMS conference. Among the many fine talks delivered during the conference, a highlight was "A Two-Decade Review of Polymer–Clay Nanocomposites," by A. Okada and A. Usuki.

The following sessions were held over the three days of the conference: Clays as Nanomaterials, Carbon Sequestration and Stabilization by Clays, Clays and

Environmental Processes, Clays in Oil Shale and Kerogen-bearing Sediments, Clays in Soils and Sediments, Clays and Archeology, Clays in Extreme Environments, Characterizing Clay Minerals, Molecular Simulations of Clays, and Zeolites.

Workshop

The customary Sunday workshop was entitled "Carbon Stabilization by Clays in the Environment: Process and Characterization Methods," and was organized by David Laird and Javiera Cervini-Silva. With 54 participants, the workshop was very well attended, reflecting keen interest in the role of clays in stabilizing carbon in soils and sediments and their implications for the global carbon cycle. In her opening remarks, Javiera Cervini-Silva reminded participants of the important role that clay scientists will have in the coming decades as we tackle issues like fossil fuel dependence, CO₂ sequestration, and the sustainability of soils.

Topics covered by the seven speakers included the influence of clays on humic chemistry, aggregation and soil structure stabilization, fractionation and isolation techniques, NMR characterization, and both SEM and TEM techniques for visualizing clay–humic complexes. Highlights included a lively discussion on whether soils contain "humic" materials or aggregates of partially decomposed biopolymers and an exciting presentation by Clair Chenu, who uses sophisticated staining techniques with TEM to visualize the ultrastructure of clay–humic complexes.

The convenors will edit a special volume arising out of the workshop, and David Laird has agreed to act as editor of the series while this one volume passes through the system.

Field Trips

Participants on field trips to the Cerrillos Hills and Española Basin (held on both Saturday and Thursday) examined bentonite beds within Cretaceous marine and Tertiary fluvial deposits. The field trips were led by Dewey Moore (George Austin, Steve Chipera, Shelley Roberts, and David Vaniman helped to organize them), ably assisted by Paul Nadeau, who had done his



Participants on the field trip ponder why this sandstone is not a shale.

doctoral thesis research in the area. Bill Baxter, local historian and author, also provided an overview of turquoise mining in the Cerrillos Hills, and Dennis McQuillan related the weathering of volcanic tephra to the high concentration of uranium in some groundwater.

The program also included a visit to the Harding pegmatite (once the primary source of beryllium for the United States), a demonstration in the art of making adobe bricks—a skill first imparted by the Moors to the Spanish and subsequently by the Spanish to



Adobe bricks in the making

the Pueblo people—and, for accompanying persons, guided tours to Los Alamos and Bandelier National Monument and to Taos Pueblo and northern New Mexico.

CMS Administration

Several administrative groups meet during the annual conference. These include the executive committee, the council, and the editorial board of *Clays and Clay Minerals*. Many nuts-and-bolts policy decisions for the next year are hammered out at these meetings. Michelle Johnson, from the CMS office, attended her first annual meeting. She manned the CMS booth and so had the opportunity to meet many members and others attending the meeting. New appointments within the Society included Joe Stucki as editor-in-chief of the journal and Reed Glassman as treasurer. To see all the names, visit the Society website (www.clays.org). Welcome to all.

Editor's Dinner

Most of the members of the journal's editorial board met and enjoyed a meal while discussing matters relevant to the journal. The big news this year is that, as Derek Bain will be stepping down from his role as editor-in-chief at the end of 2007, his position will be filled by Prof. Joe W. Stucki of



Joe Stucki and Derek Bain



Editorial Board members gather to enjoy a meal and to talk about the journal

University of Illinois at Urbana. The journal and the Society are sorry to see Derek leave, but are very glad indeed to welcome Joe to the team. The current managing editor, Kevin Murphy, will continue to work in that role.

Students

A special reception for students was held on Monday. CMS recognizes the importance of today's students for its future and seeks to encourage their development through grants for outstanding student research and for travel to the annual meeting to present research talks or posters. In fact, several students attending the meeting had been awarded a travel grant. (If you are a student, please see www.clays.org/grantspages for information about these grants. Most applicants received money to attend our meeting this year, and with this comes free membership in the Society for a year. Apply early!)

At the Helm

Ray Ferrell now takes over from Richard Brown as our new president. We wish you well, Ray.



Richard Brown winks knowingly, as he hands over the presidential gavel to Ray Ferrell

Vicky Hover and Kevin Murphy

Methods for Study of Microbe-Mineral Interactions (2006) CMS

Workshop Lectures Volume 14, Patricia A. Maurice and Leslie A. Warren, eds.

For more description and table of contents of this book contact
The Clay Minerals Society

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45th Annual Meeting of The Clay Minerals Society



Clays of Demeter

**April 5 - 10, 2008
New Orleans, Louisiana, USA**

Abstract submission deadline: October 28
E-mail: bross@cottey.edu
www.clays.org/home/HomeAnnualMeeting.html