



www.clays.org

The Clay Minerals Society

CHANGING OF THE GUARD



Richard K. Brown,
CMS President

Outgoing president Cliff Johnston (Purdue University, IN) welcomes incoming president Richard K. Brown (Wyoben, Billings, MT). Other elected positions for 2006 include Ray Ferrell (vice president elect), Andy Thomas (treasurer), Warren Huff (secretary), and new council members James Amonette, Christopher Breen, Victoria Hover, and Sridhar Komarneni. We would also like to welcome Alex Speer and Michelle Johnson, who will be running our new Clay Minerals Society office in Chantilly, VA. The e-mail address for the CMS office remains cms@clays.org. The *Elements* news editor Lynda

Williams passes the baton to Kevin Murphy, news editor for 2006–2007, who will be assisted by co-editor Steve Hillier.

FROM THE PAST PRESIDENT

First, I would like to take this opportunity to express my appreciation to the Society for the opportunity to serve The Clay Minerals Society as president this past year. It has been a year of significant transition for the Society on several fronts with many new opportunities and challenges before us. I would like to express my sincere appreciation to the executive committee for their hard work and commitment to CMS. I am routinely impressed by the professionalism and ability of the members of the executive committee. The president has the opportunity to view the society from a bird's eye perspective, and I am deeply grateful for the efforts of so many volunteers who have committed themselves to our wonderful Society.

OFFICE TRANSITION FROM AURORA, CO, TO CHANTILLY, VA

Certainly the most significant change this past year has been the office transition. I would like to thank Leslie Shivers for her hard work and service to the Society. Leslie faithfully worked as our office manager out of her home in Aurora, Colorado. Although the road map ultimately led to our new office in Chantilly, VA, Leslie wanted to remain in Colorado. She began a new job in January, 2006. Leslie has been missed, but at the same time we are appreciative of the gifts, talents, and energy that she brought to this position. Although the office transition has been challenging, all the indicators suggest that the office move will be very positive for the overall health of the Society.

SHAREPOINT SITE

One of the continuing challenges for CMS is related to the fact that we are a volunteer organization, critically dependent on our committees. In recent years, the effectiveness of the council has been hampered by a lack of communication among the various committees. As one step towards improving communication within CMS, President Johnston implemented the use of a "sharepoint" site. SharePoint is a tool designed

by Microsoft to facilitate collaboration within an organization. Users can use this tool to easily create, manage, and share information and make it available throughout the organization. The sharepoint site for CMS is www.agry.purdue.edu/cms. The site is hosted at Purdue University, and access is anonymous and free to Society members. Additional details about the sharepoint tool can be found at

<http://www.microsoft.com/sharepoint/overview.aspx>

Because our membership and leadership is scattered throughout the world, this site was implemented to post committee reports and minutes from meetings and to provide up-to-date contact information regarding the executive committee, council, and all standing and ad hoc committees. Please provide feedback to determine if we should continue to use and develop this site.

2006 ANNUAL MEETING, POITIERS, FRANCE

We have been extremely fortunate this year to have partnered with the Groupe Français des Argiles (GFA), and this has been coordinated skillfully by Sabine Petit. For the first time in the history of the Society, we are co-hosting a meeting in Europe with one of our sister societies. Sabine did a wonderful job planning the annual meeting, and we are very appreciative of her hard work. In addition, Faiza Bergaya and Katie Carrado should be commended for organizing this year's workshop on nanocomposites and for their successful efforts in securing funding to support the workshop. This meeting was our largest meeting in recent years and provided a terrific opportunity to interact more closely with European clay scientists.

CLAYS AND CLAY MINERALS: DIGITIZING THE ARCHIVE



Following suggestions by some CMS members on the Society list-server, the journal editors have investigated the possibility of digitizing the journal's entire archive, some 25,000 pages dating back to the early 1950s, and making it available online. Recent advances in scanning and "optical-character-recognition" (OCR) technology mean that it is now more feasible and relatively inexpensive (<10% of one year's annual journal production costs) to create a digital version of the whole archive. This has been warmly welcomed by members of council. Negotiations are complete, and by the time this issue of *Elements* is in press, much of the work will be done.

Each paper will be in the form of a pdf file. A "picture" will be taken of each page so an exact facsimile of the original journal page will be presented to the reader. The text on each page will

also be run through a separate "OCR" process, and the resulting text file will form a second invisible layer in the pdf file, thereby making it possible to search (and to cut and paste) the text. Photographs and line-diagrams will be scanned separately and given special treatment, and will be presented at higher resolution. Thus we aim to have the best level of reproduction possible while ensuring that the sizes of individual files do not become unmanageable.

Header material (comprising the title, the authors' names and affiliations, the abstract, the keywords, and the bibliographic material) will be extracted for each paper and saved in a separate XML-tagged file. XML (eXtensible Markup Language) tags will enable the header material to be presented separately, rather like it is in most e-journals, e.g. the Ingenta or GSW version of *Clays and Clay Minerals*. Each paper will also have a digital object identifier (DOI) associated with it. DOIs are stored by an organization called CrossRef™. They are used by most publishers to forge links between the reference lists in one e-journal and the full-text versions of the cited papers in other journals. By depositing DOI information for every paper

ever published in our journal, we will be making it possible for readers of papers published in any journal to hyperlink directly to the original papers published in our journal.

The archive will be housed in a site that is well indexed by the major search engines, including, of course, Google™. A well-indexed site is important because it is crucial that "hits" on our archived content rank highly on search-results pages. Members and others will easily be able to perform searches on that content.

While carrying out the digitization, we have also decided to create a disk version of the archive. Many users would like to have a local copy of all the published material and not have to wait for them all to download from the website! The additional cost of creating a master DVD is not significant, and we will replicate copies of that disk as required. We feel that many libraries will be glad to have the opportunity to purchase such a disk (with our express permission to copy its contents to local servers), giving librarians that much-needed peace of mind about backup for e-resources such as this. We hope to recoup some

or all of the costs of the entire digitization project through such sales.

As the project proceeds, we will ask for journal readers' assistance. With help from some members, we have already obtained a complete set of all back issues of the journal. We'll also need your help to check the material as scanned by our supplier. This will involve ensuring that all the pages have been scanned correctly and that the images are of an acceptable quality. You will appreciate, I'm sure, that this task is beyond the limits of what the editorial team can hope to accomplish on its own. We'll be in touch via the list-server.

The whole project is designed, primarily, to increase usage of both past and future issues of the journal. We hope for some knock-on effects, such as increased traffic to the Society website. We look forward to receiving your comments on and assistance with the project.

Derek Bain, Editor in Chief
Kevin Murphy, Managing Editor

CLAY MINERALOGY: AN INTRODUCTORY COURSE

This is the first in a new multimedia series of educational materials to be sponsored by The Clay Minerals Society. The CD contains material used to support a graduate-level course on clay minerals taught by Professor Ray Ferrell at Louisiana State University. The content is presented in six modules that cover basic mineralogy and classification, geologic origin, aqueous solubility and ion exchange, waste isolation and fluid flow, and X-ray powder diffraction methods for the identification and quantification of clay mineral assemblages. This is not a CD version of a standard textbook. It is a unique compilation of explanatory text, narrated slide shows, computer applications for the XRD analysis of clay minerals, links to selected websites, and copies of required readings. The pedagogical approach challenges the reader to recognize the general principles of clay mineralogy presented in the selected readings rather than simply reading a literature summary in a textbook-style chapter. The author provides some hints for interpretation, but this approach works best when two or more individuals are able to discuss the readings.

The general objective of this presentation is to foster a greater understanding of clay mineral reactions in the environment and the processes controlling their geologic distribution and industrial utilization. The material produces an increased awareness of the relationship between structural/ chemical characteristics of the diverse clay minerals present in rocks, soils, and sediments and their physical and chemical properties. The lessons to be learned are useful in diverse fields of scientific and technical investigation. One point of emphasis is that clay mineral names are mostly applied at the "family" level. Thus smectite represents materials with a wide range of chemical variability and physical characteristics. Smectite, kaolin, chlorite, and illite are terms that are more like plagioclase than names for well-defined mineral species. Within each family, chemical and structural varieties may have considerably different properties. One illite is not identical to all other illites.

Many organizations contributed copyrighted material freely to the production of this CD.

The CD is available at US\$10 per copy (add US\$10 for mailing outside of the US or Canada). Send your orders (with check or credit card authorization, including card verification number) to: The Clay Minerals Society, 3635 Concorde Pkwy Ste 500, Chantilly, VA 20151-1125, USA. Tel. (703) 652-9960; fax: (703) 652-9951; e-mail: cms@clays.org.

REPORT ON THE THIRD REYNOLDS CUP CONTEST (2006)

The third Reynolds Cup contest in quantitative mineral analysis closed at the 2006 annual CMS meeting in Oleron, France, where awards and prizes were presented to the top three contestants (names pending as of *Elements* deadline). Preparations for the event started immediately after the 2004 CMS meeting in Richland, Washington. At the 2005 council meeting, the CMS council decided on a biennial financial contribution towards the event. This year's event was significantly supported by Natural Resources Canada and organized by Dipo Omotoso.

In October 2005, information about the competition was added to the CMS website (www.clays.org), which helped to organize the flow of information to the community. Douglas McCarty and Reinhard Kleeborg also wrote an article about the competition in the December 2005 issue of *Elements*.

Minerals needed for the competition were collected from commercial and private collections. While pure minerals were desirable, minor impurity levels in the mineral specimens were tolerated as long as they could be unambiguously quantified. A total of 60 samples was made available to participants when the competition opened in January 2006. Participants made very positive comments, and felt that the contest was challenging and enjoyable. Most importantly, participants commented that the knowledge gained from the contest will improve the quality of their future quantitative mineral analyses. The reporting this year placed a greater emphasis on the analytical techniques used by the top three contestants. This will provide a useful starting point for less-experienced analysts and students interested in quantitative mineral analysis.

Tribute to Editor in Chief DEREK C. BAIN and Managing Editor KEVIN MURPHY

DEREK AND KEVIN are to be highly commended for their efforts at improving the quality of *Clays and Clay Minerals*, our Society's journal. They have improved the quality of CCM, with a record-high number of manuscripts submitted in 2005–2006; successfully negotiated a contract for the digitization of the journal's entire archive, some 25,000 pages dating back to the early 1950s; observed an increase in the impact factor of CCM; witnessed a successful first full year of *GeoScienceWorld*; and formed a working group to evaluate online manuscript and peer review software, all the while maintaining short submission-to-acceptance-to-publication times.

Derek has graciously agreed to extend his term as editor in chief through 2007, and it will be a high-priority task during the next year to find a replacement editor for CCM.