



The Clay Minerals Society

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THE PRESIDENT'S CORNER



Peter Komadel

In 2013, the CMS celebrates its 50th anniversary. The annual meeting of the Society will be held on October 6–10 at the University of Illinois in Urbana-Champaign, Illinois, USA, where Professor Ralph Grim (see article below) worked as a professor of geology for many years. The CMS website (www.clays.org/CMS%20ORGANIZATION/CMShistory.html) provides a short text on our history titled “R. A. Rowland’s Historical Account (1968) of the Founding of the Society.” The Clay Minerals Society’s page in the remaining issues of *Elements* in 2013 will

provide more details on our history. I hope that this will be of interest to our members as well as to readers from other fields of geoscience and to members of other societies. Dr. Duane (Dewey) Moore, previously at the Illinois State Geological Survey in Urbana and currently at the University of New Mexico, has agreed to provide some contributions from his “professional hobby.” The first appears below.

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President, The Clay Minerals Society

STUDENT RESEARCH SPOTLIGHT



Congratulations to **Kamol K. Das** for winning a CMS Student Research Grant award. Kamol is a graduate student in the Department of Agronomy at Purdue University, working towards a PhD in ecological sciences and engineering with Cliff Johnston. Kamol’s research involves the identification of the major factors that control the sorption of hydrophobic organic compounds on selected geosorbents.

HOW THE CLAY MINERALS SOCIETY GOT STARTED

At 9:00 am on Monday, October 13, 1986, in Jackson, Mississippi, Distinguished Member of The Clay Minerals Society Ralph Grim is introduced to give the 1986 George W. Brindley Lecture. People are still entering the lecture hall, shedding and then shaking raincoats and jackets. Those without rain gear are just wet, hair matted down. People have come in spite of the heavy rain and very dark clouds to hear the distinguished Professor Grim. The wind can be heard howling outside as if disappointed not to be able to join us in the lecture hall.

Five minutes into Grim’s talk the lights go out. There is an initial buzz in the audience, but it soon quiets down because Grim continues his lecture without skipping a beat. Halfway through his talk someone appears with a candle and holds it close to Grim’s notes. It appears that the light is unnecessary. Grim talks for about forty-five minutes on the subject “The History of the Development of Clay Mineralogy.”¹

Regarding the development of the “clay mineral” concept, he noted that prior to 1920 the finest particles in sediments were listed as clay with no consideration of what this material really was. This approach was approximately the same for soil scientists, geologists, and engineers. Many were puzzled that materials with such similar chemical compositions should sometimes have such different physical properties. Grim

cited Professor Heinrich Ries of Cornell University as the first American geologist to specialize in the study of clays. Ries’s book, *CLAYS: Their Occurrence, Properties, and Uses*, was published in 1906. Ries published a number of books focused on the clay resources of specific states in the eastern United States.

Although the younger Bragg had published the crystal structures of NaCl, KCl, KBr, and KI in 1913, the question of whether clays were discrete minerals or amorphous material remained unanswered until Hadding in Sweden in 1923 and Rinne in Germany in 1924 managed to obtain some primitive X-ray patterns that suggested diffraction by the orderly arrangement of atoms in these particles too small to see with a microscope. Hendricks and Fry in 1930² and Kelly and coworkers in 1931³ independently confirmed that these too-small-to-see particles were actually crystalline. At approximately the same time, Pauling published the first structure of mica⁴, followed shortly by Gruner’s publication of the structure of kaolinite⁵.

Duane Moore, University of New Mexico

- 1 Grim RE (1988) The history of the development of clay mineralogy. *Clays and Clay Minerals* 36: 97-101
- 2 Hendricks SB, Fry WH (1930) The results of X-ray and microscopic examination of soil colloids. *Soil Science* 29: 437-478
- 3 Kelley WP, Dore WH, Brown SM (1931) The nature of the base exchange material of bentonitic soils and zeolites as revealed by chemical and X-ray analysis. *Soil Science* 31: 25-45
- 4 Pauling L (1930) The structure of the micas and related minerals. *Proceedings of the National Academy of Sciences* 16: 123-129
- 5 Gruner JW (1932) The crystal structure of kaolinite. *Zeitschrift für Kristallographie* 83: 75-88

50TH 1963–2013
Anniversary
OF THE CLAY MINERALS SOCIETY

ANNUAL MEETING
OCTOBER 6–10, 2013
UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

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