



# The Interlayer

## The Official Newsletter of the ACMS

Spring 1998, Vol. 1, No. 1

The Interlayer Newsletter is the official news source for the Australian Clay Minerals Society. Membership to the Australian Clay Minerals Society is open to anyone engaged in work relating to clay science: mineralogy, crystallography, petrology, geology; and/or the use and application of clay minerals in industry and the environment. Registration at the biennial meetings ensures membership, but additional applications for membership are invited.

### Exchange Reactions

*What's new with ACMS?*

After a successful 16<sup>th</sup> biennial conference, hosted by Ray Frost and Co. at the Queensland University of Technology, Brisbane, a new committee was formed to organise the next conference to be held in Adelaide and to start off some new initiatives. The new committee is chaired by Jock Churchman, the secretary is John Keeling, the treasurer is Mark Raven. Committee members include Lew Barnes, Peter Self and Will Gates. Ray Frost is retained as *ex officio* and Tony Eggleton (Public Officer) remains as a *defacto* member for our continued international (AIPEA) and organisational standing. More Adelaide-based members will be added to the committee. The new committee is already at it with planning the venue and scientific program of the next conference.

### Surface Coverage

*HiLites of the 1998, 16<sup>th</sup> Biennial ACMS conference, Brisbane*

The 16<sup>th</sup> ACMS biennial conference was held on the Queensland University of Technology, Brisbane. Ray Frost was the organiser, with able assistance from Theo Kloprogge (secretary), Bob Parker (Treasurer) and Gina Paroz (Social arrangements). They put in a lot of work to make the conference a success. It was unanimously

agreed that the enterprise was a job well done by all of the Brisbane gang!

The scientific program covered nearly all aspects of the study and application of clay minerals, from why halloysite curls to how red mud neutralises acid sulfate soils. From the application of clays for coating fertilizers to characterising clays with a general area detector diffraction system. From synthetic clays for catalysis to the characterisation of two new nontronites. From why boiling enhances basalt weathering to molecular aspects of the intercalation of kaolins.

The social venue was superb, with downtown Brisbane and the Brisbane river providing a pleasant backdrop to the mostly warm and rain-free winter temperatures. Attendees were amply sated with a wide assortment of nibbles during tea time, to say nothing of the mid-day meals. The social event, however, was the conference dinner at the Brisbane Forest Park headquarters reserve. The food, drink, conversation and atmosphere were the perfect *finale* following an afternoon of bush walking, fossicking and sight seeing.

### Structural Refinement

*2000, 17<sup>th</sup> ACMS conference, Adelaide*

Mark your calendars, the 17<sup>th</sup> meeting of the ACMS, ACMS2000, will be held from Monday, April 10, through Wednesday, April 12, 2000, in Adelaide, followed by a post conference field trip. Thanks to the resources left to us by Ray and Co., the committee is working hard to ensure an excellent scientific program, workshop, a memorable social scene and interesting field trips by the next Interlayer Newsletter. We envision a conference with a similar format, with two or three days of science broken up by a day field trip and conference dinner. A half day or so will be devoted to the chapters of the ANZClay book (see next section). We encourage students to attend and to present their research.

**Register now!** To make sure you are on the mailing list for the ACMS2000 scientific program, either register electronically at our website (see below) or use the attached form and send it to: John Keeling, ACMS2000 Secretary, Primary Industries and Resources SA, GPO Box 2355, Adelaide, SA 5001.

## *ANZClay Book*

**A**s was announced at the 16<sup>th</sup> ACMS meeting in Brisbane, Jock Churchman is heading up the organisation of a book on the sources, locations and uses of clay minerals in Australia and New Zealand. The purpose of the book is to provide, in a single volume, information to the clay industry in Australia and New Zealand, such as identifying and characterising deposits and summarising past, current and potential uses of various clay minerals. All members of the ACMS committee and also Colin Harvey (New Zealand) are assisting Jock with this endeavour. If you are interested in learning more about the book, how you can possibly assist or if you are acquainted with someone you think could provide important input to the book, please contact Jock Churchman (jock.churchman@adl.clw.csiro.au).

## *Applied Clay Science*

**T**he publishers of Applied Clay Science, Elsevier, have invited Australian and New Zealand clay scientists to contribute papers toward a special issue featuring clay research in Australasia. Applied Clay Science is a journal of international distribution focusing on the applied side of research in clay science. If you are interested in submitting a paper to this special issue, please contact **ASAP**, Jock Churchman (jock.churchman@adl.clw.csiro.au) or Benny Theng (thengb@landcare.cri.nz).

## *Workshop anyone?*

**T**he committee is planning a workshop on instrumental techniques and methods of analysis of clay minerals for Sunday, 9 April, the day before the conference officially opens. Will Gates (will.gates@adl.clw.csiro.au) and Peter Self, (peter.self@unisa.edu.au) are organising this first ACMS workshop. Methods and techniques, such as XRD quantitative analysis, XRF for chemical composition and structural formulae, X-ray crystallography and X-ray absorption

spectroscopies & electron microscopy and diffraction will be presented. We especially encourage student interest and participation in the workshop. If you are interested in attending, please indicate so on the electronic form at our website (see below), send an email to the organisers, or fill out the attached form and send it to: Will Gates, ACMS2000 Workshop coordinator, CSIRO Land and Water, PMB No.2, Glen Osmond, SA 5064.

## **Particle Interactions**

### *Visit our Website*

**L**ook for the ACMS website at the following URL:

<http://www.unisa.edu.au/acms>

This page includes an outline of the ANZClay Book, a copy of this newsletter, a contact list of all current members and registration forms for ACMS2000. As it is under construction, log in frequently to see the various links to other mineralogy groups. Thank you, Peter Self!

**M**ark Raven, resident *photodocteur* has placed interesting scenes of the 16<sup>th</sup> ACMS conference in Brisbane up on the site as well. So, look to see who is who and what is what in the ACMS!

### *Useful links.*

**S**ome useful links are included on our site, including:

**T**he Clay Minerals Society : This webpage is a good one for starters, with links to many other sites, current information, Clays and Clay Minerals and the Source Clays Project. <http://shadow.agry.purdue.edu/clay/claymin/claymins.html>

**CMS ListServer** : The CMS ListServer is a "list" for people interested in clay minerals, wanting information on various minerals, experimental techniques and etc. To join, send email to [listserv@vm.cc.purdue.edu](mailto:listserv@vm.cc.purdue.edu) and, in the message body type SUB CLYMIN-L Your Full Name. You will receive a message stating you are subscribed.

**Digging the Virtual Quarry** (Mineralogy Club of Antwerp, Belgium) : This is a useful list where you can view and place ads for a wide variety of minerals and lapidary and research equipment. Mostly amateur, but interesting. <http://www.xs4all.nl/~mineral/vqads.html>

**M**ineralogical Society, Great Britain. This web site has links to other organisations, publications and membership information.

<http://www.minersoc.org>

**M**ineralogical Society of America : This web page is full of information, including the contents of The American Mineralogist and links to other sites. <http://www.minsocam.org>

**M**ineralogical Society of Canada : A good site for information on mineral deposits, the society's newsletter and the Canadian Mineralogist.

<http://www.umanitoba.ca/geoscience/mac/>

Enjoy the links.

## Particle Size

*In the News.*

**R**ob Fitzpatrick received the Prescott Award in Soil Science for his work in soil mineralogy and pedology. The Prescott Award is the most prestigious given by the Soil Science Society of Australia, Inc.

**T**ony Eggleton visited the Uley Graphite mine near Port Lincoln, SA, in August to sample two nontronites with John Keeling, after meeting with most of the ACMS committee. Following characterisation of these nontronites, Mark Raven, John Keeling, and Will Gates are organising to supply the Source Clays Repository of the Clay Minerals Society with new reference nontronites.

**T**he work of Keith Norrish, Phil Slade and Bill Emerson, all still-very-active Post Retirement Fellows with CSIRO, was featured in the Adelaide Forum, an inter-CSIRO Land and Water newsletter. Keith is still actively in charge of the XRF facility, Phil is working closely with Will Gates on organic modified clays and Bill is collaborating with Jock Churchman on relating clay mineralogy with bulk properties in soils.

Send news of interest or of the activities of ACMS members to the editor.

## Stacking Order

*Conference Planner*

**M**ineralogy and the Environment. Aberdeen, UK, 7-8 January, 1999. Contact: J. Cotter-Howells, Dept. of Plant and Soil Science, Univ. of Aberdeen, Aberdeen AB24 3UU. Email- [j.cotter-howells@abdn.ac.uk](mailto:j.cotter-howells@abdn.ac.uk);

**G**eological Association of Canada - Mineralogical Association of Canada Joint Annual Meeting, Sudbury, Ontario, 26-28 May, 1999.

WWW: <http://www.laurentian.ca/www/geology/gacmac99.htm>.

**T**he Clay Minerals Society Annual Meetings, West Lafayette, Indiana, 26 June to 1 July, 1999. See their website listed above.

**E**uroclay 1999, Conference of the European Clay Groups, Kracow, Poland 4-10 September, 1999. Includes workshop at Banska Stiavnica, Slovakia. Email: [ndsrodon@cyf-kr.edu.pl](mailto:ndsrodon@cyf-kr.edu.pl).

WWW: <http://www.ing-pan.krakow.pl>.

**G**eological Society of America - Mineralogical Society of America Joint Annual Meeting. Denver Colorado, 25-28 October, 1999.

Contact: Becky Martin, GSA Meetings Dept., Boulder CO, 80301-9140.

**A**ustralian Clay Minerals Society 17<sup>th</sup> Biennial Meeting, Adelaide, South Australia, 10-12 April, 2000. Workshop 9 April, 2000.

**I**nternational Council for Applied Mineralogy (ICAM 2000), Gottingham and Hannover, Germany, 16-26 July, 2000. WWW: [www.bgr.de/icam2000/icam2000.htm](http://www.bgr.de/icam2000/icam2000.htm).

### Australian Clay Minerals Society

#### Membership Registry

We need your help. Do you know of others who should be receiving, or would like to receive, copies of the Interlayer Newsletter? Membership to the ACMS is open to professionals, academics industrialists, and students engaged in work relating to clay mineralogy, crystallography, petrology, geology and/or the use and application of clay minerals in industry and the environment. Registration at the biennial meetings ensures membership, but additional applications are invited. Simply fill out the form and send it in.

name: \_\_\_\_\_

affiliation: \_\_\_\_\_

tick one: University(  ) Student(  ) Industry(  )  
Government(  ) Private(  ) Other(  )

address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

email: \_\_\_\_\_

fax/phone: \_\_\_\_\_

Distribution requests and items for inclusion should be addressed to:

W.P. Gates, ACMS2000 Newsletter Editor, CSIRO Land and Water, PMB No. 2, Glen Osmond, SA 5064 or email the above information to: [will.gates@adl.clw.csiro.au](mailto:will.gates@adl.clw.csiro.au)

**Australian Clay Minerals Society 17th Biennial Conference - ACMS2000**

10-12 April, 2000 Adelaide, SA

*Indication of Interest : Conference Registry*

name: \_\_\_\_\_ Affiliation: \_\_\_\_\_

email: \_\_\_\_\_ Address: \_\_\_\_\_

Fax/Phone: \_\_\_\_\_

( ) I am interested in attending the *Workshop on Instrumental Techniques and Methods in Clay Science* (9 April, 2000).

Workshop will feature: XRD quantitative analysis; X-ray absorption spectroscopies (synchrotron based); X-ray fluorescence for chemical composition and structural formulae; X-ray crystallography; Electron microscopy and diffraction.

Please fill out and send to: John Keeling, ACMS2000 Secretary, Primary Industries and Resources SA, GPO Box 2355, Adelaide, SA 5001. Or register electronically at the website:

<http://www.unisa.edu.au/acms>.