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International Mineralogical Association

FRANCES WALL IS NEW IMA COMMUNICATIONS OFFICER

IMA reported in a recent issue of *Elements* that a new Council post had been created, namely that of Communications Officer. I can now reveal that the Council has duly elected me in this role. I enjoyed meeting IMA colleagues during my recent term of office as General Secretary of the Mineralogical Society of Great Britain and Ireland and look forward to working with the international mineralogical community to publicise, discuss and explore the activities of IMA.

It is very much a testament to the success of *Elements* that my post is now required. An important part of the job is to channel IMA reports and articles into the *Elements* pages, where IMA has the opportunity to communicate with scientists worldwide – and perhaps as important – where, through its member organisations, scientists worldwide are able to communicate with the readership of *Elements*. There are 38 member mineralogical societies or groups in IMA. Seven of them are partners in *Elements* and therefore have plenty of opportunity to tell us of their activities. This leaves mineralogical societies (with a small 's' because some are groups within geological societies) in another 31 countries about whom I hope we will learn more in future editions of *Elements*. I plotted the seven 'Elements countries' and the 31 other IMA member countries on a world map to make the point that we can considerably expand the countries that contribute to *Elements* by welcoming submis-



Frances Wall, new IMA Communications Officer, studying maar deposits in the Auvergne during her 'day job' as petrology researcher at the Natural History Museum, London, UK.

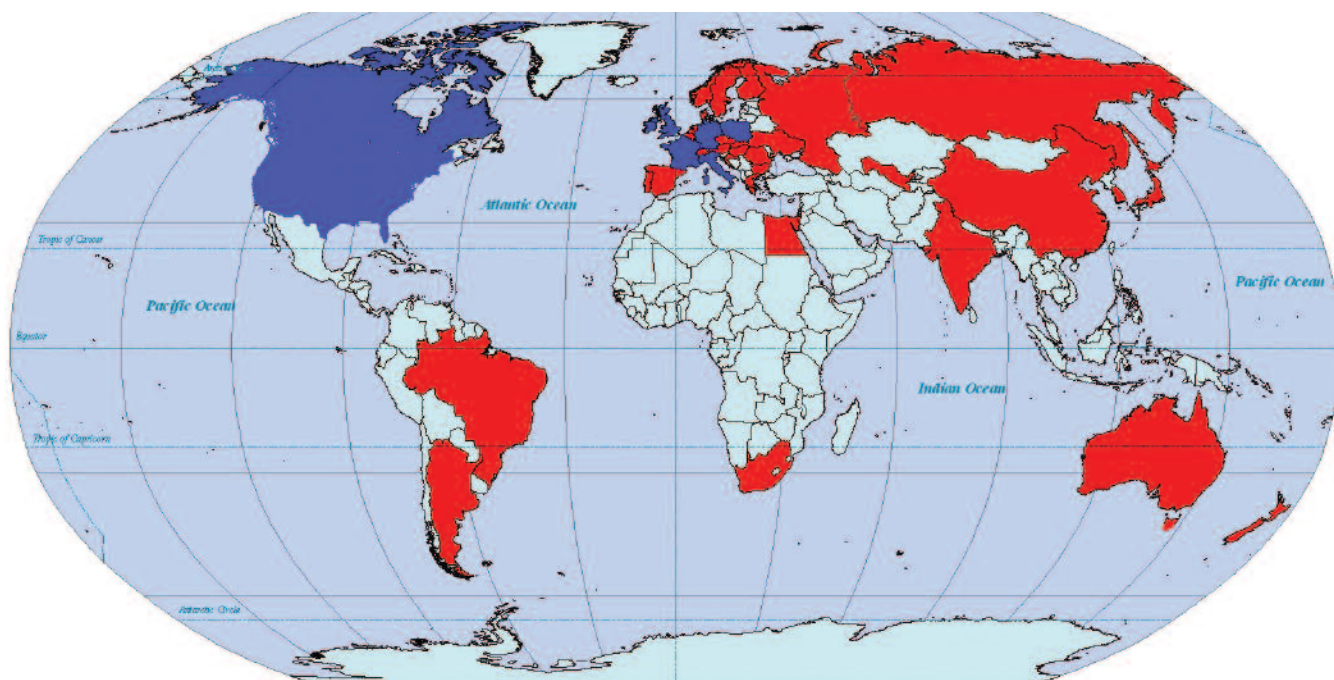
sions from IMA members. My plan is to feature occasional articles from member countries, aiming eventually to complete the tour of all of them. Looking at the world map, one notices large gaps in the coverage in Africa, the Middle East and southern Asia, which have virtually no mineralogical representation. Presumably 'mineral physics is not big in Malawi', and of course mineral scientists working in these countries may be members of their geological societies, national organizations in other countries, and/or geochemical or clay minerals societies. But I wonder how well we reach these people, who must be most in need of good international communications. Perhaps this is a question I can try to answer in the coming issues.

Articles explaining the work of three IMA commissions and working groups have been published in *Elements*, and over time I would like to explain what all of the groups do. Editorial matter from the IMA Council will also continue, together with news of meetings and, never the most glamorous reading but essential reporting if we are to keep you informed of IMA activities and decisions, the accounts of business meetings.

Frances Wall

IMA Communications Officer
f.wall@nhm.ac.uk

Seven national mineralogical societies are partners in *Elements* and members of IMA (blue). There are a further 32 IMA member countries (red).

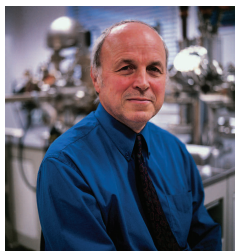




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NEW IMA WORKING GROUP ON ENVIRONMENTAL MINERALOGY AND GEOCHEMISTRY UP AND RUNNING



David Vaughan,
Chair of WGEMG

The past decade has seen the emergence of a new field of research activity in the Earth and mineral sciences, one that is best termed "environmental mineralogy and geochemistry." The recently established IMA Working Group on Environmental Mineralogy and Geochemistry (WGEMG) is now up and running. It seeks to promote this field through organization of sessions at international conferences, short courses, specialist publications, networking, and a presence on the Internet. The officers of the WGEMG are Chairman David Vaughan (Manchester, England), Secretary John Jambor (Tsawwassen, B.C., Canada) and Vice-Chairman Tom Sato (Sapporo, Japan). They and the other scientists involved believe that mineralogy and geochemistry have a central role to play in the larger field of environmental science and in tackling the many environmental problems faced by humanity in the 21st century. In consultation with colleagues, they have produced a working definition of this field, as follows:

Environmental mineralogy and geochemistry is an interdisciplinary field dealing with systems at, or near, the surface of the Earth where the geosphere comes into contact with the hydrosphere, atmosphere and biosphere. This is the 'environment' on which plants and animals (including humans) depend for survival and which can be disrupted by human activity, particularly that associated with exploitation and utilization of Earth's resources. It deals with those systems containing minerals that constitute key environments (modern sediments, soils, atmospheric aerosols, parts of certain micro and macro-organisms including the human body). Both pure systems and those contaminated through human activities are considered, with emphasis on a fundamental (predictive) understanding of such systems at scales that can range from molecular to global. The full armoury of modern analytical, imaging, diffraction, spectroscopic and computer modelling techniques are employed.

Examples of specific topics within the scope of environmental mineralogy and geochemistry include the release, transport and dispersal of toxic wastes from mining and industry (including the nuclear industry) and the safe containment of such wastes; mineral-based atmospheric aerosols; minerals in the human body; geochemistry and human health; and preservation of minerals and rocks in culturally important buildings and artefacts.



Elements cover image September 2005 highlighting environmental mineralogy and geochemistry. The image shows low-pH acid mine drainage and reddish Fe-oxyhydroxide precipitates at the periphery of a tailings impoundment in the Joutel area, Quebec. The tailings are from a former copper producer, and the site has since undergone remediation. PHOTO COURTESY OF JOHN JAMBOR

Two conference sessions sponsored by the WGEMG have already been held: "Mineralogy and Geochemistry of Acid Mine Drainage and Metalliferous Minewastes" at Goldschmidt 2005, Idaho, USA, which resulted in the publication of a collection of papers as a special part-issue of *Applied Geochemistry* (volume 21, pp 1249-1334, 2006), and "Environmental and Medical Mineralogy" at the IMA conference in Kobe, Japan, in August 2006. Future plans include sponsorship of a session at Goldschmidt 2007 in Cologne, Germany ("Microbial Biomineralization: From Environmental Processes to New Technologies") and, in the

longer term, sponsorship of sessions at Goldschmidt 2008 (Vancouver) and IGC 2008 (Oslo).

WGEMG now requires national representatives to contribute to its activities. If you are interested in helping, please contact WGEMG Secretary John Jambor or one of the other officers.

For further information see the IMA website www.ima-mineralogy.org or contact a WGEMG officer.

CHAIR: David J. Vaughan
The University of Manchester
School of Earth, Atmospheric
and Environmental Sciences
Manchester, M13 9PL, UK
david.vaughan@manchester.ac.uk

VICE-CHAIR: Tom Sato
Hokkaido University, Laboratory
of Environmental Geology
Graduate School of Engineering
Sapporo, Japan
tomsato@eng.hokudai.ac.jp

SECRETARY: John L. Jambor
Leslie Research and Consulting
Tsawwassen, BC V4M 3L9
Canada
jljambor@aol.com

The next Council meeting of IMA will be at the Frontiers in Mineral Science meeting, 26-28 June 2007, Cambridge, UK.

Please see the IMA website www.ima-mineralogy.org and contact one of the councillors if there is an issue you would like the councillors to discuss.

WOULD YOU LIKE YOUR COUNTRY TO HOST THE IMA CONFERENCE IN 2014?

IMA Council is calling for expressions of interest to host the 21st IMA General Meeting in 2014. Recent conferences have taken place in Toronto, Canada (1998), Edinburgh, UK (2002) and Kobe, Japan (2006, with about 1000 attendees; see *Elements* volume 2, issue 5, October 2006). The next event will be in Budapest, in August 2010, and will be organized jointly by Austria, Hungary, Croatia, Czech Republic, Romania and Slovakia.

The 2018 conference is planned for the USA and will highlight the Mineralogical Society of America centenary in 2019. IMA encourages geographic variation in the venue. If your society is interested in hosting the international mineralogical community in 2014, please contact IMA secretary, Maryse Ohnenstetter, mohnen@crpg.cnrs-nancy.fr, for further details and initial discussion.



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MINERALOGY IN BRAZIL

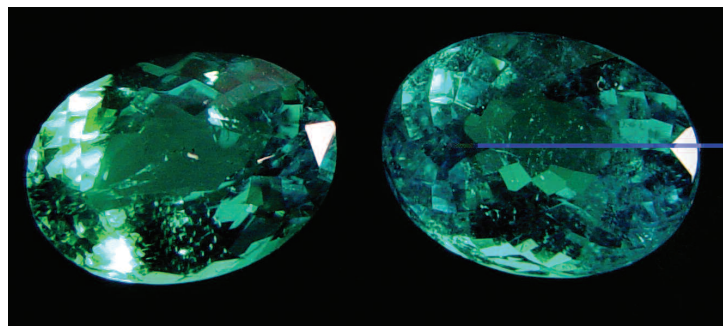
The image of Brazil as a fabulous place for minerals is a matter of fact, says IMA national representative Fábio Ramos Dias de Andrade in a letter describing the history and present scientific environment in Brazil. Mineralogists in Brazil are experiencing the best job market in 30 years.

The vast piece of land known as Brazil, the only Portuguese-speaking country in Latin America, was once called the giant asleep, the land of the future, referring to its potential to become an outstanding world economy. Although the country has not reached this status so far and its wealth is poorly distributed among the population, Brazil is an El Dorado for mineralogists and Earth scientists, a place where much has been done and much more is still to do.

The Brazilian autochthonous, pre-colonial population of the Tupi-Guarani culture did not use metals, in contrast to the coeval Incas, Mayas and Aztecs. Their artefacts were and still are made of wood, bone, ceramic, stone, vegetal fibres and leather. It was the European newcomers who triggered the gold fever that still burns today.

Natural resources attracted the colonial powers in the sixteenth century, starting with the arrival of the Portuguese in 1500 AD and followed by several incursions of Dutch, English, Spanish and French pirates. In the seventeenth century, expeditions into the continent from the Atlantic coast towards the Andes and in the Amazon region, in search of gold and gemstones, were important in establishing the borders of the country. Gold was a leading resource in colonial Brazil—gold was sent by ship to the Portuguese crown, mostly to pay off debts with the British Empire and Holland. Mineral exploration in Brazil took the lives of many African slaves and was an important cause of the genocide of its original population, the índios.

The image of Brazil as a fabulous place for minerals is a matter of fact. Brazilian gemstones, amethyst geodes, diamonds, the world's largest niobium reserves, huge iron, gold, copper and tin deposits, world-class oil fields and abundant industrial minerals, among other geological highlights, make the mineral resources one of the pillars of the Brazilian economy. A recent boom in the mineral sector owing to a decade of rel-



Paraiba tourmaline cut in oval shape (3.15 and 3.25ct), from São José da Batalha, Paraíba, Brazil. This tourmaline has a unique colour (neon blue) owing to its high copper content, and is one of the most expensive varieties of tourmaline. PHOTO: ANTONIO LICCARDO



Amethyst geode (3 kg) from Ametista do Sul, Rio Grande do Sul. Brazil is the leading amethyst producer, mostly from geodes in the Cretaceous continental flood basalts from Rio Grande do Sul. PHOTO: ANTONIO LICCARDO (WWW.GEOTURISMOBRASIL.COM)

ative economic stability has led to the best job market for geologists and mineralogists in more than 30 years. Some fields of applied mineralogy, such as ore processing and environmental mineralogy, are following this trend thanks to increasingly restrictive environmental laws. With the job market improving, mineralogy is attracting more students, and new research fields, from cultural heritage to medicine, from petrology to solid-state physics and from gemology to materials science, are being explored. Hence, mineralogy is no longer regarded merely as a subject for an elementary course in the geology undergraduate curriculum; it now receives attention as a key for professional advancement. As Brazilian universities do not offer degrees in mineralogy, the field is primarily occupied by geologists and a few physicists and engineers. Scattered throughout universities and corporations, mineralogists are grouped according to their research interests, rather than by associations or institutions. Therefore, it is difficult to establish the size and shape of the Brazilian mineralogical community, although it certainly counts a few hundred members. IMA national representation comes under the umbrella of the 2600-member Sociedade Brasileira de Geologia. There is no formal mineralogical group, and national representation for Brazil was reinstated following discussions between the author of this article and IMA officers at the International Geological Congress in Brazil in 2000. Additionally, few Brazilian journals publish papers on mineralogy, and most of our contributions appear in international journals in English. A milestone in this regard was the 8th International Congress on Applied Mineralogy (ICAM2004), held in Brazil in 2004 under the auspices of the International Mineralogical Association and its Commission on Applied Mineralogy (IMA-CAM), with Henrique Kahn from IMA-CAM in charge of the organising committee. This meeting brought together more than 200 people from around the world and contributed to knowledge on both traditional and unconventional fields of mineralogy (Pecchio et al. 2004).

About 50 minerals have been described for the first time from Brazil (Atencio 2000). One of the first was native palladium, observed in 1809 by W.H. Wollaston in samples from Brazilian gold mines given to him by the Portuguese ambassador. New minerals are still being discovered, in the last few years mainly by the team led by Daniel Atencio, the Brazilian member of the IMA Commission on New Minerals,

Cont'd on page 292



www.ima-mineralogy.org

International Mineralogical Association

FROM THE PRESIDENT



At its 2006 business meeting held in Kobe, Japan, IMA made several decisions. Ian Parsons, outgoing president, proposed that a council meeting be held every year and a business meeting every other year. The recent council meeting in Cambridge was the first trial of this policy. We were able to move forward on various topics and policies included in the long agenda. I am sure the activity of IMA will be

much enhanced by these more frequent gatherings. The mineral sciences have expanded into many broad fields, and our assembly is now composed of mineralogical societies and groups from 38 countries. Hence it is high time to have annual council meetings. Another decision was to create a new communications officer post, and Frances Wall joined the council meeting as the new officer. I appreciate her efforts in organizing features for *Elements* and in gathering news related to mineralogists worldwide.

One of the important discussions at the last council meeting was the term of office of the president. There is no mention in the constitution of the duration of this term, but in practice the president actually serves 12 years on council (quite a sentence!). It is planned that the appointment will be limited to six years, two as vice-president, two as president, and two as past president. Some aspects still remain to be discussed, such as the relationship between the president and the chairperson of the IMA general meeting; at the moment they are one and the same person, but this need not necessarily be the case. Council was in general agreement to shorten the term, and the idea will now be formalized and put forward at the council and business meetings in Vancouver in 2008. The new rule will come into effect during the IMA business meeting in Budapest in 2010.

In addition, the council also agreed that it would be beneficial to reduce the term of office for councilors, but we have not decided on the best duration of term.

A recent accomplishment of the IMA is the establishment of an IMA medal. We will award the medal to honor a person who has made a great contribution to research in mineral sciences. The IMA Medal Committee, chaired by Joel Grice, is responsible for recommending the winning candidate to Council. All IMA mineralogical societies and groups can nominate individuals, as can committee members. The award can be made every year, and I encourage all mineralogical communities to recommend a candidate.

Finally I would like to express my thanks to all councilors for their wonderful cooperation, especially to Maryse Ohnenstetter for her enormous contribution to the IMA secretariat.

Takamitsu Yamanaka
President of IMA

NEW INTERNATIONAL MINERALOGICAL ASSOCIATION MEDAL FOR EXCELLENCE IN MINERALOGICAL RESEARCH



The IMA Medal will be presented by the International Mineralogical Association for the first time in 2008. It will be awarded for excellence in mineralogical research and will be one of the pre-eminent awards in this discipline. The recipient will be chosen for scientific eminence as demonstrated primarily by the awardee's scientific publications of outstanding original research in mineralogy. It will be a lifetime achievement award. The successful candidate will be drawn from one of the 38 nations that are members of the IMA.

Service to mineralogy, teaching, and administrative accomplishment will not be the primary consideration for the award.

Nomination packages must be up to date and complete. Each nomination must be accompanied by a "nomination checklist," which is available online or from the IMA secretariat. A nomination package must include

- a cover letter from the nominator outlining the candidate's qualifications in light of the criteria for the award.
- supporting letters from at least three but no more than five individuals. These letters should focus on how the candidate meets the criteria for the award.

- a complete curriculum vitae and a bibliography of published works, exclusive of abstracts, book reviews, and papers that have not yet been accepted for publication.

The IMA encourages the nominator to send an electronic version of the nomination package to the committee chair. Much of the committee work can then be done by e-mail.

The recipient of the IMA Medal is required to present a lecture on a topic related to the award at the meeting during which the medal is presented. The lecture will be published in a suitable international journal of mineralogy, with the agreement of the IMA Medal Committee.

Nomination packages are to be received by the chair of the IMA Medal Committee before **April 1, 2008**.

Joel Grice
Chair, IMA Medal Committee
E-mail: jgrice@museum-nature.ca

Mail:
Canadian Museum of Nature,
P.O. Box 3443 Stn D, Ottawa, ON
K1P 6P4, Canada

Courier:
Canadian Museum of Nature,
1740 Pink Road, Gatineau, PQ
J9J 3N7, Canada