

INTERNATIONAL MINERALOGICAL ASSOCIATION 21st MEETING

Johannesburg, or Jo'burg/Josie/eGoli as it is also known, is a city little more than 130 years old and an appropriate host for IMA 2014, the 21st quadrennial meeting of the organization, given the city's rich history in gold and diamond mining. The meeting was held on September 1–5, 2014.



Nelson Mandela statue

Delegates at IMA 2014 were greeted at the Sandton Convention Centre on Sunday afternoon by the South African Minister of Science and Technology, the Honourable Naledi Pandor. The welcoming ceremony also included a display of 'Gumboot' dancing, a spectacular audiovisual treat and a throwback to the days when (black) miners cleaned their boots by stamping their feet and banging on their boots with their hands, and sang about their low pay and the unfair policies of their employers.



The Honourable Naledi Pandor greeting participants

The meeting was co-hosted by the Mineralogical Society of South Africa (MINSSA) and the Geological Society of South Africa (GSSA). The theme chosen was "Delving Deeper: Minerals as Mines of Information". Delegates were encouraged to join in the spirit of *ubuntu*, a Xhosa term meaning "kindness, humanity, compassion and goodness." They were also treated to an ad hoc addition to the scientific literature – *IMAtite*. See the definition in the image (from the MINSSA conference t-shirt, right).

The programme included 13 pre-conference field trips, six laboratory visits, six workshops and seven post-conference trips. There were 58 scientific sessions, about 750 abstracts, eight plenary and 36 keynote talks; all this attracted 820 delegates from some 50 countries. The organizing team from MINSSA and GSSA, headed by Sabine Verryn, Desh Chetty and Craig Smith and assisted by a group of volunteers, promised a memorable, stimulating, AFRICAN experience – a promise kept. Through extensive fundraising activities, sixty-two students received funding from the conference to help them attend the event. This funding included \$10,000 from the IMA.



Sabyn Verryn (left), chair of the Organising Committee, and Desh Chetty, chair of the Scientific Programme



Craig Smith, chair of the Finance Committee

The programme contained many highlights. The largest number of papers was contributed to the pegmatites session (see page 468), but large sessions on platinum-group elements, diamonds and related mantle themes, and process mineralogy and geometallurgy reflected the particular interests of the host nation. After diamond, tourmaline was the most mentioned



The conference t-shirt

mineral. D. Henry (and B. Dutrow) described recent advances in the understanding of tourmaline's petrological potential. Topical issues such as critical metals and geomicrobiology were represented, along with many other mineralogical topics ranging from environmental mineralogy to new minerals, education and skills development. The eight excellent plenary talks included the IMA medallist lecture by Nick Sobolev, from Russia, on the ultrahigh-pressure mineralogy of the continental lithosphere, and David Reid's lecture on the use of high-resolution analytical techniques, like focussed ion beam, high-resolution transmission electron microscopy and microfocus X-ray computed tomography, to gain insights into the natural controls that govern the concentration and distribution of platinum-group elements. The world's largest repository of these strategic metals is the Bushveld Complex of South Africa. Wulf Depmeier gave a tribute to the International Year of Crystallography (2014) entitled "Cross-Fertilization of Mineralogy and Crystallography." Mineralogy as a scientific discipline depends heavily on crystallographic knowledge, techniques and methods. On the other hand, crystallography has its roots in mineralogy. He showed several examples where progress in crystallography is related to advancement in mineralogy, and vice versa. Other plenaries were given by Dee Bradshaw, Richard A. Ketcham, Anhuai Lu, Walter Maresch and Ian Parsons. Full details are available at www.ima2014.co.za/index.php/programme/plenary-speakers.



A display of 'Gumboot' dancing

NEWS FROM THE IMA COUNCIL

In Johannesburg, the IMA Council held three meetings, the primary objectives of which were the election of new Council members; a review of IMA finances, committees, commissions and working groups; a discussion and implementation of amendments to the Constitution and By-laws; and charting the path forward. In his report, President Walter Maresch emphasized the critical role of national representatives in ensuring effective bilateral communication between the Association and its 38 member organizations. Regular website updates and publications in *Elements* continue to be important vehicles of communication. He reflected positively on the productivity of most IMA commissions (www.ima-mineralogy.org/comm_work.htm) and indicated that two of the working groups (Environmental Mineralogy and Geochemistry, and Inclusions in Minerals) are now considering reorganizing themselves into commissions. Incoming IMA President Sergey Krivovichev shared his ideas on the future of the Association, which were summarized in the Development Strategy Plan slated for circulation to national representatives in the fall of 2014.



Outgoing President Walter Maresch (left) passing the symbolic wheel of IMA presidency to the new 'helmsman', Sergey Krivovichev

Some of the Plan's highlights include strengthening support for young scientists and most active research groups (e.g. through their umbrella commissions), several new publication projects aiming to raise the global profile of our organization, and financial provisions to support these initiatives. Another important part of the Plan is further development of the IMA Archive, which has been in the making since 1994; the Archive really kicked off in the last two years under the leadership of former IMA President Ekkehart Tillmanns, together with Gábor Papp and Annamária Kis of the Hungarian Natural History Museum. The ultimate goal of this project is to build a searchable online database of IMA documents going back to the 1958 founding meeting in Madrid. Nominations for Council membership were circulated earlier in the summer and posted online, and additional nominations were encouraged from the delegates.

At the IMA business meeting on September 3, Peter Burns was elected unanimously to the

post of 1st vice president (president designate) and Robert Downs was re-elected as treasurer. Hans-Peter Schertl was voted in to replace Richard Göd as secretary, and Anton Chakhmouradian to replace Frances Wall as communications officer. New councillors are Sabine Verryn, former 2nd vice president and chair of the Organizing Committee in Johannesburg, and Marco Pasero. They replace Joel Grice, who has served IMA in one role or another for over 30 years (!), and C. Srikantappa. Councillor Jane Gilotti will take over as chair of the IMA Medal Committee. The 2013 IMA Medal was awarded to Nick Sobolev during the meeting (see People in the News, *Elements* 9: 326), and nominations for the next award are due April 1, 2015 (see www.ima-mineralogy.org/Medal_nominations.htm for instructions). Stay tuned for further updates!

PUBLIC RELATIONS

These days, everyone, from individual scientists to the largest multi-national research group, is aware of the need to promote the work they are doing and to link research to the 'real' world, demonstrating impact. Two highlights stood out in this regard:



An example of how scientific findings were reported in the media.

In his talk "A hydrous mantle transition zone indicated by ringwoodite included within diamond," Graham Pearson (and others) spoke about the origin of water in the Earth's hydrosphere. When originally published in *Nature Geoscience*, this research attracted much attention from the international press. Coverage varied, and the last slide from Graham's talk (reproduced here with permission) indicates how the science was perceived.

In his talk "Structure and occurrences of green rust-related new minerals of the fougèrite group, trébeurdenite and mössbauerite, belonging to the hydrotalcite supergroup: how Mössbauer spectroscopy helps XRD" and the related talk "Industrial applications of green rusts related to the minerals fougèrite, trébeurdenite and mössbauerite: from steel corrosion to water purification," Jean Genin (and others) described three new green rust-related minerals and their utility in wastewater denitrification. This work received a considerable amount of press following publication in *Mineralogical Magazine*.

EXHIBITS

The exhibit hall included about 50 displays from the world of minerals, including providers of analytical equipment, publishers, mineralogical consultancies, societies, and other conferences. Refreshments were served in the exhibit hall and the poster sessions were hosted there, so there was a good flow of people throughout the event, particularly at break times. Julia Petrikis (Jena University, Germany) visited all booths, answered all the questions about the exhibition and so won the exhibition contest! She was happy to receive a valuable book donated by the Geological Society of South Africa. The *Elements* booth was busy throughout the event. On display were back and current issues of the magazine, as well as publications of and information about several participating societies.

SOCIAL EVENTS

The conference included opening and closing ceremonies, a formal conference banquet, and a less formal dinner on the Wednesday evening (featuring a revival of music from the 1980s – a must for mineralogists of a certain generation!). Many also took the opportunity to visit local sites of geological and cultural interest.

NETWORKING

There were many informal gatherings in nearby bars and restaurants, where the serious business of networking, planning, discussing and paper writing went on. Jo'burg was the perfect location for these activities, with large quantities of the excellent *Pinotage* to help oil the wheels.

THANKS

The mineralogical community owes a huge debt of gratitude to the organizers of what was a truly excellent conference. Sabine, Desh and Craig and the South African team worked extremely hard in advance of the conference and during the event to make sure that every need was met.

The flame is now passed to Stuart Mills and his Melbourne team for IMA 2018. We wish them the best of luck. The koala mascot, present in numbers at the IMA 2018 booth, has travelled from relatively warm South Africa to cooler climes (west Cork, Ireland), in anticipation of the trip 'down under' four years hence.

Kevin Murphy, Frances Wall, Klaus-Dieter Grevel, and members of the IMA Council



The koala mascot of IMA 2018 has travelled back to the cooler climate of West Cork, home of Kevin Murphy

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