

THIS ISSUE

We now have the capacity to exploit economically gas and oil shale, oil sands, and heavy oil in spite of additional technology, energy, and cost requirements. Guest editors David Cole and Michael Arthur and the authors of this issue address the geological and geochemical nature of these resources and their impact on global socioeconomics and the environment. Rounding out the issue are two Perspective articles, on shale gas exploitation and the need for geoscientists to become involved, and Patricia Dove's editorial, which reflects on the global political context.

While working on this issue, I received the following e-mail: "Your next issue, 'Unconventional Hydrocarbons,' sounds terrifying. The environmental devastation caused by 'fracking,' 'tar sands,' and other processes is off the scale. We should be moving away from hydrocarbons and looking towards a carbon-free future...it is entirely possible." This comment illustrates well one side of the polarized debate surrounding unconventional oil and gas. In Quebec, legislation was tabled in 2013 to put a moratorium on exploration and exploitation for shale gas, but the bill died when the government called an election. But even exploration for conventional resources is controversial in some areas. Recently, aboriginal groups in Canada made an official request for a moratorium on oil and gas exploration in the Gulf of St. Lawrence "until a comprehensive environmental assessment is done." The St. Lawrence coalition, made up of environmental groups, First Nations, and fishery representatives from five provinces, is also pushing for a moratorium on exploration for oil and gas in this area because "too little is known about the possible effects of oil and gas projects on the gulf's fragile ecosystem to proceed with them in its waters." Exploration for any resource can no longer be made in isolation. Companies need to earn a "social license" to operate, and that can only be done by informing and involving the local populations and working closely with regulatory agencies.

COPYEDITOR FOR *ELEMENTS* MAGAZINE

We seek a copyeditor to join the editorial team of *Elements* magazine as it heads into its second decade. *Elements*, published six times yearly, is a joint publication of 17 international societies covering the fields of mineralogy, petrology, and geochemistry (MPG). Each issue comprises six peer-reviewed, thematic articles geared to the technical MPG nonspecialist, as well as nonthematic content. Reporting to the executive editor, the copyeditor helps ensure that the magazine's editorial matter conforms to *Elements'* high editorial standards. The copyeditor has the following tasks (among others): ensure that the editorial content is clearly expressed and free of grammar, spelling, and punctuation errors; ensure that the content conforms to *Elements'* established editorial style; check that all mineral names, mineral formulas, and geographical names are correct; ensure that mathematical style conventions are rigorously followed; check that figures are clear and correctly cited in the text; ensure that the reference list is complete and correct; check and correct the prepublication proofs.

This position will appeal to those who delight in well-written English and have an eye for detail. The position allows for creativity and is ideal for those interested in helping to make difficult science subjects accessible to the nonspecialist reader. There are no geographic restrictions on the location of the copyeditor, but there must be ready access to the Internet.

Required qualifications: A BSc in Earth science or a related scientific field, or equivalent experience. Fluency in both written and spoken English is essential. A minimum of 3 years of copyediting experience is needed, preferably copyediting for a general geoscience publication. The candidate will be able to use standard software (Microsoft® Word, Adobe® Acrobat) for manipulating and treating texts.

This is a position subject to annual contract renewal. Start date is 1 January 2015 with a time commitment of approximately 80 hours every 2 months. For additional information about *Elements*, see www.elementsmagazine.org.

Applications should include a cover letter clearly addressing the required qualifications, a CV, and the names of three referees. Applications and/or questions should be sent electronically to: Pierrette Tremblay, Executive Editor *Elements* (pierrette.tremblay@ete.inrs.ca). Applications will be reviewed starting Monday, 13 October 2014, and the position will remain open until filled.

EDITORIAL MEETING

We welcomed Jodi Rosso, incoming executive editor, and Bernie Wood, incoming principal editor, to our day-long annual meeting, held prior to the Goldschmidt Conference. We reviewed thematic issues currently in preparation, proposals received for potential inclusion in the 2016 lineup, and various editorial questions. Founding Editor Rod Ewing and Dan Frost, member of the Executive Committee standing in for Chair Barb Dutrow, joined us for a brainstorming session during which we discussed open access, how to make *Elements* even more relevant, and online and social media presence.



At Goldschmidt, we celebrated *Elements'* first ten years with the union session "Elements: 10 Years Old (see page 313), and a dinner with past and principal editors and members of the Executive Committee was held at Cafeteria 15L.

PETER ROEDER

Many of us mourn the passing of Peter Roeder (see obituary, page 298). Peter was my MSc supervisor. He was a great scientist, but he will be remembered even more for his kindness and gentle ways. He and his wife Claire welcomed countless students to their home. I remember well some of the grad parties at their house, with Claire's wonderful cooking. After we left Queen's, my husband and I would stop by every few years to show off our growing children, and we were always welcomed like family. Peter also had a great influence on my career: In 1994 while he was president of the Mineralogical Association of Canada, he asked me to join its outreach committee. This invitation was the beginning of my long involvement with MAC, which eventually brought me to *Elements*.

Pierrette Tremblay, Executive Editor

EDITORIAL *Cont'd from page 243*

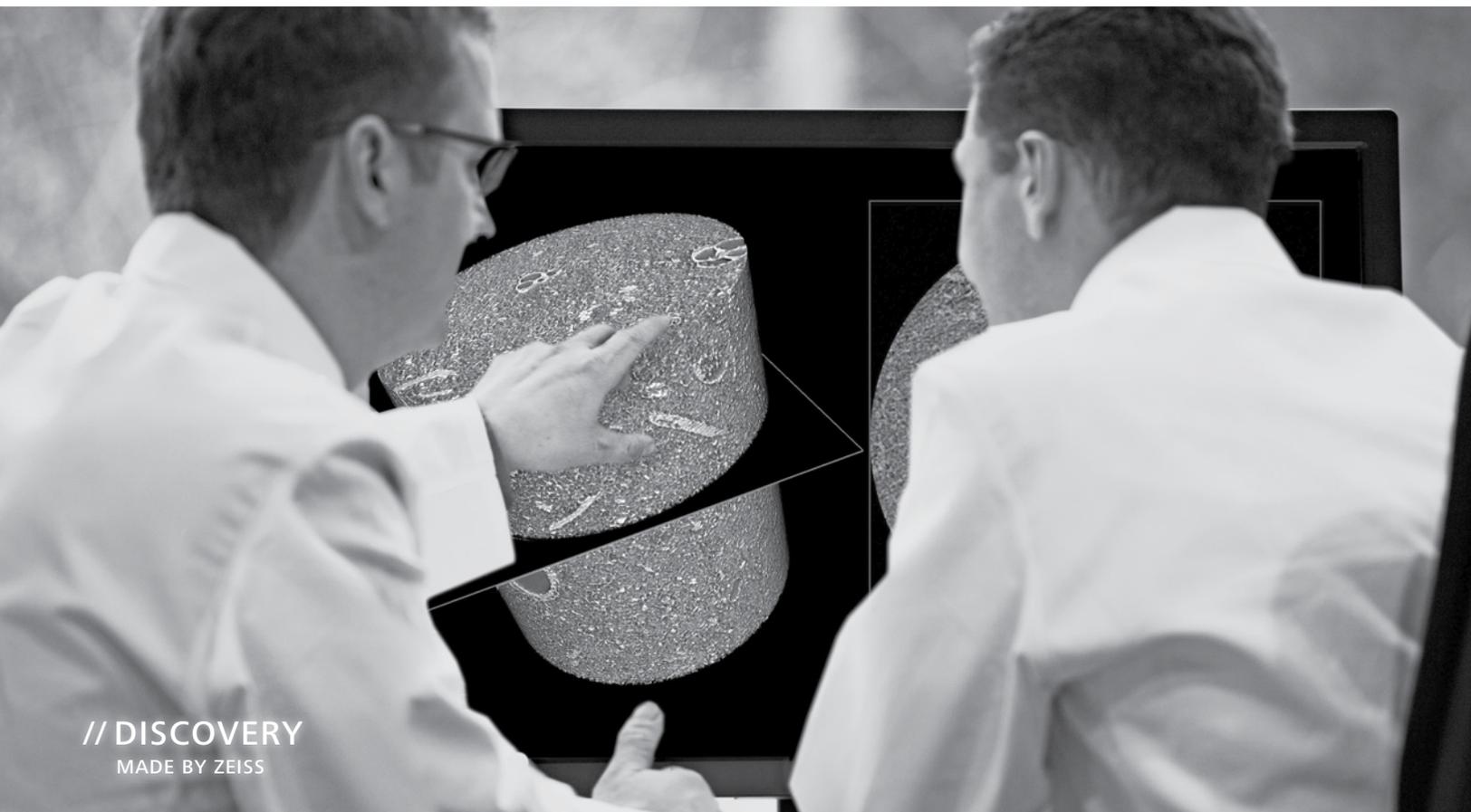
pausing to hear the tummy rumble of energy-hungry China. Eager to wean its economy from energy imports and coal, Beijing has set an ambitious target of producing 60–100 billion cubic meters of gas per year by 2020 (*Wall Street Journal*, March 2014). It is quite possible that China will become an energy producer, with early estimates projecting that the Sichuan and Tarim basins contain massive gas reserves on the same order as those of the Marcellus Shale (US EIA report). Because water supply will be a major challenge, Chinese national companies are partnering with Royal Dutch Shell and US firms to adopt new low-water-use technologies. These events suggest the possibility of another tectonic shift, with the emergence of new Far East energy giants.

With the prospect of a truly globalized energy economy comes the reminder that we must consider environmental impacts. History seems to repeat itself, with the drive to frantically mine Earth resources and then leave behind environmental legacies with tremendous societal and ecological costs. Can it be different this time? As we rush forward to develop unconventional energy sources, can new technologies evolve in the "right" ways? We have an opportunity to write a new energy legacy that includes more environmental wisdom and foresight than before. In the bigger picture, such a change in mindset could also guide us toward solving other complex issues, with far-reaching benefits for humankind.

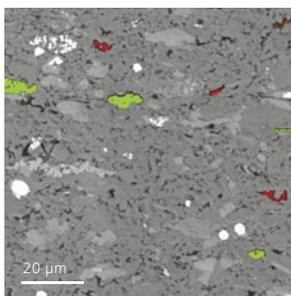
Patricia M. Dove

Principal Editor in charge of this issue

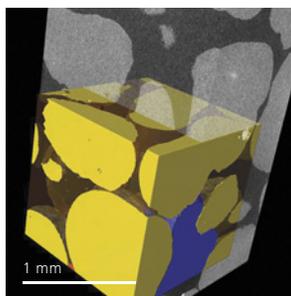
The moment exploration becomes discovery.
This is the moment we work for.



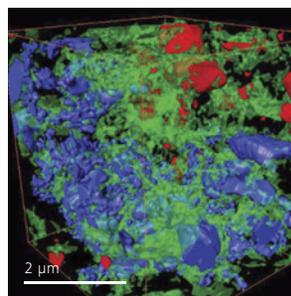
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