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The opinions expressed in this magazine are those of the authors and do not necessarily reflect the views of the publishers.

www.elementsmagazine.org



Ian Parsons¹,
outgoing Principal Editor

How Are We Doing?

Elements is beginning its fourth year of publication, a milestone both for the magazine and for me, because I am the last of the first group of Principal Editors, and this is the final issue with which I shall be associated. It seems a good moment to review our

progress. Of the original four editors only Pierrette Tremblay remains, as our dynamic and super-efficient Managing Editor, our corporate memory and the anchor for the whole operation. When Rod Ewing (who kick-started the enterprise), Mike Hochella, Pierrette and I met in Ann Arbor, Michigan, in April 2004, we began with a clean sheet, named the magazine, discussed our target audience, the level at which articles should be pitched and all manner of detailed things. We boldly decided that the first issue should be distributed in November 2004, a deadline met after heroic efforts (particularly by Pierrette). For me, this was an impressive demonstration of North American get-up-and-go, and the start of a thoroughly enjoyable, creative, at times thrilling, three-year editorial stint. To maintain freshness we decided that three years was the maximum editors should serve, a daringly rapid turn-around. After all, the redoubtable L.J. Spencer was Editor of *Mineralogical Magazine* continuously from 1901 to 1955, holding her steady through two world wars, the rise of communism and the atomic bomb, among other events!

Elements is very much a child of the electronic age and ten years ago could not have been brought to life so quickly or carry such topical news. We editors do a lot of e-mailing, and most of our communications with guest editors and authors are done via ad hoc e-mails and attachments, either of Word files or pdf's. When we reach the proof stage we can see and comment on the page layout on Pierrette's ftp site, and we all express our views on cover design. Every couple of months we have a conference call, and Pierrette and the Principal Editor assigned to a particular issue also have a conference call with its Guest Editor. We have never had anything like an argument – I've seldom had the pleasure to work with such a like-minded group of people. This was something of a relief to me, because I'm somewhat older than the other editors and, when you reach a certain age you tend to assume you are becoming a bit of a dinosaur. It has truly been an honour and a great pleasure to work with such distinguished scientists.

Despite its structural complexity compared with formal scientific journals, and the fixed length and time schedule of thematic articles, *Elements* has avoided the worst development in scientific publishing of the last decade – and here I am unashamedly dinosaurian – the rise of commercial electronic manuscript-tracking systems. Readers will be familiar with their labyrinthine architec-

ture, fiddly text-boxes and inability to retain the formatting of pasted-in text. Manuscripts can contain hundreds of typos and grammatical errors, easily marked on hard copy but laborious to mark electronically. I think peer-review will decline in quality, and that is not a trivial matter. These systems create work for authors, reviewers and editors (and I speak with experience of all three viewpoints). Long may *Elements* retain its simple, flexible, informal electronic approach.

In our very first editorial we proclaimed: 'The grand vision of *Elements* is to integrate mineralogy, petrology, and geochemistry, and to showcase them to ourselves and to a much broader community'. When we met in Ann Arbor, *Elements* was supported by the mineralogical societies of the United States, Canada, and Great Britain & Ireland. By the time we went to press we had been joined by the Geochemical Society (GS) and the Clay Minerals Society. When the GS joined I felt that our future was secure and that the most important piece of integration was accomplished. Now we have fourteen supporting organizations, our print run has reached 12,000 and we mail to about 100 different countries. There is a tangible sense of better integration and communication among organizations. New styles of conference, like the very successful "Frontiers in Mineralogy" meeting in Cambridge last year are, I like to think, a product of this new sense of unity.

But what of the broader community? Our thematic sections showcase mineralogy, petrology and geochemistry (MPG) to students, scientists in other disciplines and science policy makers. Articles should be pitched at a level suitable for first-degree students towards the end of their courses. We have been successful in this. Early on we started getting requests from academics for use of single articles, and I was particularly pleased when Britain's Open University – which is involved only in distance learning and has course material presented to a very high standard, partly through the BBC – asked to include some of our articles. Many of our thematic topics provide ideal material for essays. Making an informed choice of source material is difficult or impossible for students using search engines, but *Elements* articles, with their thirty or so permitted references, can lead students both to classic foundation papers and to the best recent work in a particular field, selected by acknowledged front-runners. As its range enlarges, *Elements* will become an up-to-date teaching resource which we hope will be increasingly used in academia.

I do not think our enterprise has yet significantly strengthened the position of MPG in the competition for students and research funding. This will take time and the involvement of all subscribers. Only pressure on your national research council, and within individual universities, can have real effect. It is encouraging that we have enjoyed sponsorship from the DOE in the United States, but in the UK the research council mainly responsible for funding research in mineralogy, petrol-

¹ Ian Parsons was the principal editor in charge of this issue.

BIENVENIDA A LA SOCIEDAD ESPAÑOLA DE MINERALOGÍA

With this issue of *Elements*, we welcome the 230 members of the Sociedad Española de Mineralogía (Mineralogical Society of Spain), the 14th society to join *Elements*. President Manuel Prieto states on page 51, in his word of introduction, "We inaugurate a new stage in the history of our Society."

SUPERISSUE ON SUPERVOLCANOES

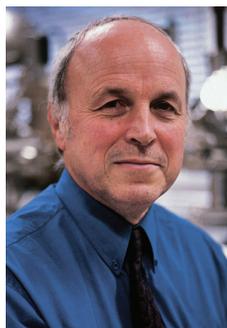
Even though we have been blessed with wonderful guest editors since day one, David Wark and Calvin Miller made our job a breeze: they had a clear vision of the level at which they wanted to aim the articles—a level that corresponded exactly with ours—and they scrupulously followed instructions and deadlines. We thank them and the authors they assembled.

SUPER-ERUPTION VERSUS SUPERERUPTION

Every issue has its own little story. In this issue, whether to hyphenate supereruption was hotly debated. Supervolcano was natural, but supereruption seemed hard to read. In the end, Colin Wilson's arguments prevailed. He wrote: "I note with interest that the hyphenated versus non-hyphenated usage of prefixes like over- and super- are wholly inconsistent... I take the point about tongue-tied ex-colonials having the 'erer' problem, but in my diction-

ary there is superego (and the meaning is not quite what one would expect), supereminent, supererogation ('the performance of more than duty requires' – seems an appropriate description of everyone's efforts in the journal and this issue) and superexcellent, for example. My preference is still to have the two terms treated the same; otherwise their juxtaposition seems odd."

WELCOME TO DAVID VAUGHAN



With this issue, David Vaughan joins *Elements* as a principal editor, as Ian Parsons bows out. David is a distinguished mineralogist and geochemist, who is known to many readers. His research interests center on fundamental studies of minerals, particularly metal sulfides

and oxides, using advanced analytical, spectroscopic, and imaging techniques, molecular-scale studies of mineral surfaces including interactions with microbial species, and applications of such studies to problems of Earth resources and the environment. The sulfide mineral vaughanite, from Hemlo, Canada, was named for David in recognition of his contributions to ore mineralogy.

David is Professor of Mineralogy and Director of the Williamson Research Centre for Molecular Environmental Science at the University of Manchester, UK, and was educated at the University of London and at Oxford. He has worked at the Canada Centre for Minerals and Energy Technology in Ottawa (1970), the Massachusetts Institute of Technology (1971–1974), and the University of Aston in Birmingham (1974–1988). He is past-president of the Mineralogical Society of Great Britain and Ireland, former vice-president of the Société Française de Minéralogie et Cristallographie, and past-president of the European Mineralogical Union. He chairs the IMA Working Group on Environmental Mineralogy and has served as a distinguished lecturer for the Mineralogical Society of America and the Mineralogical Society of Great Britain and Ireland. He has received the Royal Society of Chemistry Award in Geochemistry and the Schlumberger Medal of the Mineralogical Society, and has been elected a Geochemical Fellow of the Geochemical Society and of the European Association for Geochemistry. Welcome aboard, David!

Ian Parsons, Bruce Watson,
Susan Stipp and Pierrette Tremblay

EDITORIAL (cont'd from page 3)

ogy and geochemistry, the NERC, continues to undervalue our work. I searched for some keywords (or part words) in the pdf of their 2006-2007 *Annual Report and Accounts* (47 pages in full colour). A table of hits paints a grim picture:

environment... 125	atmospher... 17	seism... 6	mantle 2
ocean... 107	earthquake 10	mineral... 5	rock... 2
climat... 94	volcan... 10	mining 4	petrolog... 1
marine 60	tsunami 9	earth science... 3	soil... 1
geolog... 55	insect... 7	geology 3	mineralogy 0
ecolog... 30	crust... 6	geochemi... 2	petrology 0
biolog... 22	geophysic... 6	geoscience... 2	geochemistry 0

The good showing of words beginning with 'geolog...' is due mainly to references to the British Geological Survey, which is part of NERC. Authors of the present *Elements* issue will be pleased that 'volcan...' did so well. It's there because it reflects NERC's preoccupation with the many facets of Doom. In universities, in response to what the Doomsters sell as a paradigm shift, many well-regarded departments of geology (or Earth science) have been subsumed into woolly units with names like 'School of Geoscience' (whatever that means). These are dominated by academics who have no understanding of the importance of MPG in the making of every artefact they own.

The British Isles, on the wet and windswept feather-edge of Europe, were discovered by the civilised world in about 325 BC, by a Greek called Pytheas. He travelled from Massilia (today's Marseille, in France) seeking the Cassiterides, the tin islands, where barbaric people with painted faces extracted minerals for the bustling Mediterranean. Although there is little mining in modern Britain, the UK is still a world player in the extractive industries: BHP Billiton, Rio Tinto and Anglo American, three of the world's largest and most profitable mining companies, all have

British roots. It is home to the world's second largest oil company (BP) and the third largest, the Anglo-Dutch firm Shell, has just posted the largest annual profit ever (US\$ 23 billion after tax) for a British listed company. North Sea oil has passed its peak but has many years left, and the oil price recently passed \$100 a barrel. By virtue of spear-heading the industrial revolution and being the largest economy of the 19th century, the UK has inherited industrial pollution on an epic scale. The contaminated land remediation industry is buoyant. Radwaste disposal and CO₂ storage are hot issues. How can it be that branches of science to which a country owes so much of its wealth are so flagrantly undervalued by its research council and universities?

Lack of appreciation of the societal importance of MPG is not by any means specific to the UK. It is a worldwide problem. Recognizing the possibility of anthropogenic climate change, and responding to the climate of fear surrounding it, funding agencies have transferred money into climate science at the expense of work on the deeper Earth and its resources. This transfer of funding has had an insidious effect. As MPG research programmes have been cut back, we can no longer provide enough trained manpower at the PhD level for the petroleum, mining and remediation industries. Because of the growth of the economies of China and India, demand for trained geologists in the oil and minerals industries is extremely strong. Wiser research managers would have appreciated that solutions to the problem of climate change will be technological, very probably involving large demand for unusual raw materials, and negotiated overall increases in funding for the Earth sciences, rather than the damaging internal redistribution that we have seen. There will not be a better time to push MPG into the political spotlight, so wherever you live, why not take out an *Elements* subscription on behalf of a policy maker or opinion former of your choice?

Ian Parsons