European Association of Geochemistry

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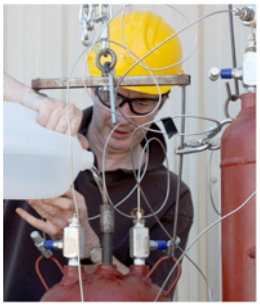
SIX QUESTIONS TO CHRIS BALLENTINE...



Chris Ballentine at work

Chris Ballentine (University of Oxford) is currently EAG president and has been an EAG Council member since 2007. With unfailing dedication and energy, Chris has been a key figure in the organization of European Goldschmidt conferences (chairing Davos 2009 and acting as the Goldschmidt officer for Prague 2011 and co-convenor of Florence 2013), and he has been crucial to EAG's continued growth through his leadership and the development of several new initiatives. In the following interview, the EAG office asked him to share his views on a range of issues.

What or who inspired you to become a geochemist?

On finishing my first degree in physical chemistry I took a position as a research assistant in Keith O'Nion's noble gas lab in Cambridge. Nick Belshaw had the task of showing me how to build, develop and control the laboratory mass spectrometry and vacuum systems. There is something fundamentally satisfying about creating an analytical tool from basic principles, and I will always be indebted to Nick for his patience and humour during this process. This was a spectacular time to work in the O'Nions research group, and I also crossed over with Barb Sherwood Lollar, Dave Hilton, Don Porcelli, John Stone, Steve Galer, Steve Goldstein, Anthony Cohen, Kevin Burton, Derek Vance, Gideon Henderson and others outside Keith's group who are too numerous to mention. This was an incredible, intellectually stimulating, exciting and dynamic environment. To not be inspired would have been unthinkable. It was here that I decided to try to contribute to the quest to understand the Big Earth questions of the time; and I took up an offer from Keith to bring together the equipment I had built with my physical chemistry work and begin study for a PhD in geochemistry.

How do you think the field has changed since you were a student?

The spectrum of approaches to solve the science of natural systems remains little different, but as different sub-fields and analytical approaches have matured the bias that was towards individuals or their research groups breaking ground with new techniques has swung to larger-scale collaborative efforts for revealing systems' secrets. These larger teams bring together not just different analytical techniques but provide cross-disciplinary expertise from, for example, geophysics and biogeochemistry. These have provided different quantitative tools but also new perspectives and approaches to the problems being investigated and from which I am still learning. There is still room enough in most areas, though, for that new technique or analysis applied to that special sample from a key Earth system to make a fundamental advance.

Which career choices were the most important?

After my PhD I took up a post in the Swiss scientific civil service studying radionuclide transport through rock in a nuclear waste research group. My colleagues were excellent, the working and living environments were pleasant (tennis, winter skiing and summer climbing/hiking), the post was permanent and, for a new PhD graduate, was extraordinarily well paid. So I packed this in. I really missed the wide ranging intellectual freedom I had in academia. I returned to a short-term contract on a fraction of the salary working as a research scientist at the University of Michigan. This was in Alex Halliday's research group, and I have never been so happy as I was from being accepted into another extraordinary and exciting intellectual hothouse of ideas and activity. There were times when, as a contract end approached or a grant decision was coming through, stress levels were very high and I really wondered whether I had made the right decision. Without the unfailing support of my wife and family I would not have survived. This return to academia was the key defining point in my career direction and one, now, I am very happy to have made.

What has been your greatest obstacle?

I don't think there has been a single obstacle that has ever been so large that it would justify description here.

What inspires or motivates you?

Solving a puzzle. When project results finally make sense and their interpretation is corroborated or self-consistent, there is immense satisfaction in knowing that you have been the first to look at and make sense of that system and that, in some way, it adds to the greater understanding of the Earth. It is pleasing when this can be published in a high-profile journal, but some of my most personally satisfying work is not always the work that catches others' attention.

What qualities do you look for in a potential PhD student or postdoc?

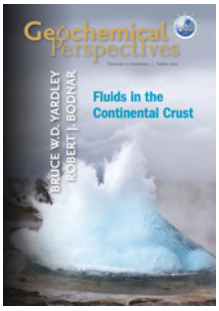
Someone who has got huge curiosity far beyond the narrow confines of their project-to-be and wants to apply their sound basic science to understand key natural systems. A sense of fun but also a hard desire to publish their discoveries. I look for someone who will fit in with the group and be able to work as part of our team, someone who is as happy to roll up their sleeves and clean out the burnt mess 'that used to be diffusion pump oil' from the vacuum system as they are to generate a first-class numerical model describing their data. Independence and self-motivation are essential, but knowing when to ask for help is also important. Someone who is comfortable discussing and questioning the latest results, either their own, their colleagues or in the literature. With apologies to my team past and present, I haven't found anyone yet who fits all of these criteria, and I certainly didn't, but I can keep looking!

DISTINGUISHED LECTURE PROGRAM 2014

We are excited to announce that Rachael James, University of Southampton, has been selected as the EAG Distinguished Lecturer for 2014. As part of this year's tour, Rachael will give lectures in the Czech Republic (Charles University, 10 November), Romania (Romanian Academy and Babes-Bolyai, 24 and 26 November) and Bulgaria (Sofia University, 28 November). Rachael's research focuses on the development and application of chemical and isotopic techniques to improve our understanding of Earth and planetary processes, both now and in the past.

You can find the lecture abstracts at www.eag.eu.com/education/dlp. Lectures are open to all so if you are at a nearby location, do not hesitate to attend.

HIGH IMPACT FACTOR FOR *GEOCHEMICAL PERSPECTIVES*



We are delighted to announce that our journal, *Geochemical Perspectives*, launched in 2012, has received its first impact factor in 2013: **8.25**. We would like to thank all the authors and reviewers who have contributed to establishing this new publication. All articles are **freely available online** at www.geochemicalperspectives.org or via GeoScienceWorld.

Topics covered so far:

- **The Iron Biogeochemical Cycle Past and Present: Raiswell & Canfield**
- **The Carbon Cycle and Climate Change: Memoirs of My 60 Years in Science: Broecker**
- **Sculpting of Rocks by Reactive Fluids: Jamtveit & Hammer**
- **Mineral–Aqueous Solution Interfaces and Their Impact on the Environment: Brown & Calas**
- **The Marine Carbon System and Ocean Acidification during Phanerozoic Time: Mackenzie & Andersson**
- **Noble Gas Constraints on the Origin and Evolution of Earth's Volatiles: Moreira**
- **Formation and Evolution of the Continental Crust: Arndt**
- **Fluids in the Continental Crust: Yardley & Bodnar**

Thanks are especially in order for the *Geochemical Perspectives* editorial team, who had the vision to create this journal and has tirelessly worked to solicit, edit and proof the volumes that you see today:

- Liane G. Benning, University of Leeds (and EAG vice president)
- Janne Blichert-Toft, ENS Lyon
- Tim Elliott, University of Bristol
- Eric H. Oelkers, CNRS Toulouse/University College London
- Susan L. S. Stipp, University of Copenhagen

This strong reception by the geochemistry community of a wholly community-run journal is good news for geochemistry and for the launch of *Geochemical Perspectives – Letters* in 2015.

WHY JOIN OR RENEW YOUR EAG MEMBERSHIP?

The EAG has developed several initiatives in the past few years and continues to do so, bringing additional benefits to our members. Today, EAG membership benefits include:

- **Reduced registration fees at the annual Goldschmidt Conference**
- **Subscription to *Geochemical Perspectives* (print and all back issues online)**
- **Subscription to *Elements* (print and all back issues online)**
- **Reduced subscription rates to *Chemical Geology* and to *Geofluids***
- **Sponsorship of member-led short courses and conferences**
- **Sponsorship of students attending short courses and conferences in Europe (see next news item)**
- **Member rates for Mineralogical Society of Great Britain and Ireland and Società Geologica Italiana print publications**
- **And, from 2015, subscription to *Geochemical Perspectives Letters***

Our membership benefits continue to expand while our rates remain the same. And to save you from having to renew your membership every year, we still propose multi-year memberships with a discount:

Student 1 year	**15 euros**
Student 3 years	**35 euros**
Professional 1 year	**25 euros**
Professional 5 years	**100 euros**

For more information, to join or to renew, please visit www.eag.eu.com/membership.

NEW EAG MEMBERSHIP BENEFIT FOR STUDENTS

As the European Association of Geochemistry wishes to support students training in geochemistry, **EAG sponsors 20 students for up to 200 euros per student** to attend geochemistry-related short courses, workshops or conferences located in Europe and taking place before 1 March 2015. Students do not need to present a talk or poster.

Interested students can check www.eag.eu.com/education/student-sponsorship for more information.