

Editorial

In 2007, the Geological Society of London, the oldest national scientific society dedicated to the Earth sciences, celebrates its 200th anniversary. Amongst the Society's many wide-ranging activities, scientific publication has a particularly long and successful history, and the *Journal of the Geological Society*, and prior to 1971 the *Quarterly Journal*, has been at the forefront of the Society's publishing activities for over 160 of those 200 years. It is therefore most fitting that the Journal should contribute to the Society's Bicentennial celebrations with a series of authoritative reviews of topical subjects in the modern Earth Sciences.

The motto of the Society — loosely translated as 'Whatever is under the Earth' — has always served as a guide to the breadth of our science, although necessarily it has never prevented us from investigating what is both on and indeed above the Earth. That breadth is amply reflected in the diversity of both the subjects covered by these reviews and the expertise of the individual authors. For example, in this issue you have the opportunity to read about the current state of knowledge of Hierarchical Earth accretion in the Hadean Eon (Jan Kramers), Tectonic models for accretion of the Central Asian Orogenic Belt (Brian Windley, Dmitriy Alexeiev, Wenjiao Xiao, Alfred Kröner and Gombosuren Badarch) and Dynamic perspectives on mineral systems (David Groves and Frank Bierlein). Later reviews will cover yet more diverse topics and there will be up to three in each issue of this bicentennial volume. All of the reviews deal with various aspects of the complexities of our planetary system, its origins and evolution, and all are firmly rooted in a rigorous scientific approach, whether based on detailed field studies, laboratory-based analysis or numerical modelling. Irrespective of the approach taken, it is the intention that these reviews emphasize the geological perspective of the subject areas that they cover.

It is noteworthy that many of the subjects that are topical now have been so throughout the past 200 years. For example, subjects such as mountain building, the fossil record and biological evolution, the inner structure and composition of the Earth, the origin of granites, palaeoenvironments and palaeoclimatology have all given rise to intense debate, much of it in the pages of the *Journal*, and this is the iterative process by which science advances. In the past they were approached with map, hammer, microscope and a lot of imagination. Today they are also tackled with a broad array of sophisticated analytical techniques, but despite the increasingly quantitative nature of our science, frequently no less a degree of imagination. Some depend on careful laboratory analysis of chemical and isotopic composition, both on the whole-rock and single mineral grain scale. In contrast, others rely more on computational techniques to analyse and interpret the complexities of seismic data or investigate the physical chemistry of mineral changes beyond the reaches of laboratory study.

This tendency towards more specialised approaches to our subject, as well as the large number of scientific journals now published, means that it is becoming increasingly difficult to keep abreast of developments even in fields that are closely allied to one's own subject area. Hence the value of broad-based reviews such as this new series, which help us all to remain at least conversant with recent developments across the whole of the Earth Sciences. Hopefully, Fellows and other readers will find the reviews a valuable addition to the *Journal* and the intention is that they will continue beyond this volume to become a permanent feature of the *Journal* in the future.

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1 August 2006