EARTH SCIENCES HISTORY

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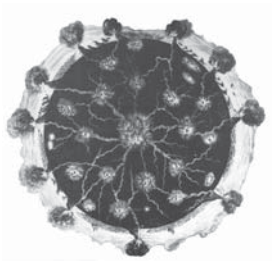

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EDITORIAL

THE BLACK HILLS, INSTITUTIONAL HISTORIES, DINOSAUR COLLECTING AND THE 49TH PARALLEL

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With this issue comes, I hope, the developing comfort to readers in knowing how a new editor's style is panning out. While the cover of *Earth Sciences History* is coloured green, and the paper on which its contents is printed is white, its internal style has remained largely as before. I have introduced a small number of stylistic changes—in the Guidelines for Authors a request is made that authors insert en-dashes rather than hyphens in references to show the pagination of works cited. While this may seem trivial to many, as one who also typesets the journal, I know that this will save countless hours of checking and altering copy. I have also asked that revised typescripts should be submitted on CD as 3.5 inch discs are no longer acceptable. Authors should also take great care to ensure that images are scanned at 300 dpi (half-tones) and 1,200 dpi (black and white diagrams) and submitted at final publication size. For this issue I checked all figure files in Photoshop and had to manipulate, crop, and resize many of them.

While I had thought that the assembling of this, my second, issue of *Earth Sciences History*, would not take as long as my first, I was incorrect. During the genesis of the former I became familiar with matters of style and had the benefit of having received most papers fully edited by Greg Good my predecessor. For this issue this was not the case and for most papers published here I took editorial responsibility. I am most grateful to Eric Mills for bringing Jen Smed's paper to a high editorial standard. It was my intention to have this issue in the mail before December 2005 but this deadline slipped a little; future issue should not be delayed.

You will notice that this issue is approximately 150 pages long and that volume 24 comprises close to 300 pages in total. In the past it was often difficult to pre-determine the financial costs of publication of the journal if the issues varied greatly in length. It order to provide some financial stability in this regard it is my intention that the length of each journal issue should remain somewhat consistent (*c.* 150 pages), unless of course the provision of page contributions allows for a longer than 'normal' issue to be published.

This issue contains a note of welcome from Martin Rudwick, President of HESS. 2005 has been a busy year for our President, and he has seen the recent publication of two books: *The New Science of Geology: studies in the Earth Sciences in an Age of Revolution* and the monumental *Bursting the Limits of Time* (Chicago). The former is reviewed in this issue (pp. 265–266). Two papers provide fascinating insights into the workings of

institutions. David Oldroyd and Graham McKenna discuss the early years of the British Geological Survey and the often difficult conditions under which its staff worked—this is beautifully illustrated in the photograph of a geological party wading across a Scottish river. Jens Smed provides a detailed examination of the establishment and evolution of the Central Laboratory of the International Council for the Exploration of the Sea (ICES) and its successors. The pioneering work of Henry Newton and Walter P. Jenney in the Black Hills of Dakota is documented by Ken Aalto. He recalls the early death of Newton, which probably led to his being little-known, certainly beyond North America. Aalto's paper goes far to re-establish the sound reputation of these two geologists. Paul Brinkmann discusses the ambition of the vertebrate paleontologist Henry Fairfield Osborn, who engaged others to collect important dinosaur fossils for him along the Utah-Colorado border. Finally John Fuller outlines the debate on the stratigraphy of successions straddling the 49th Parallel and shows how their interpretation was influenced by geological thinking from either side of the Atlantic. This issue also carries one book review (mentioned earlier), Gerald Friedman's regular and as always valuable column of 'Interesting Publications', the HESS Treasurer's Report for 2005, Guidelines for Authors, and a report on the Scientific Committee of Antarctic Research (SCAR) meeting held in Germany in October 2004. While it is not my intention to publish many such meeting reports, it was obvious that the unique subject of this meeting warrented highlighting.

A NOTE FROM THE PRESIDENT OF HESS

MARTIN J. S. RUDWICK

President, HISTORY OF EARTH SCIENCES SOCIETY

In March 1994, a little over a decade ago, the Geological Society of America sponsored the first of its prestigious Penrose conferences ever to be devoted to the history of the earth sciences. This outstanding occasion was organised by two of HESS's past presidents (Léo Laporte and Ken Taylor) and our next president (Naomi Oreskes). As some readers of *Earth Sciences History* will remember, we met in congenial surroundings in San Diego, on the shore of a coastal lagoon not far from the open Pacific. Among us were earth scientists with a serious interest in history, and historians with a serious interest in the earth sciences (and a handful of oddballs like myself, with some claim to belong in both categories).

The conference had the title "From the Inside and the Outside", and many of the participants took it for granted that the scientists were the Insiders and the historians the Outsiders. But I remember that in opening the first session I pointed out that the labels could equally well be reversed. While scientists have the incalculable insider's advantage of hands-on experience of the practice of the relevant sciences (or some of them), historians have the equally valuable insider's advantage of deep familiarity with the scientific worlds of the past (or some of them). Scientists know in their bones much that never surfaces explicitly in their publications, or even in their unguarded talk over an outcrop in the field or over coffee at a conference: what Michael Polanyi called "tacit knowledge". Historians likewise grow to understand in their bones what it was like to live–and practise some kind of scientific work—in some past period, with all its own taken-for-granted assumptions and blind spots: they operate a virtual time-machine, which often transports them into conceptual and practical worlds as strange and unfamiliar as any encountered by anthropologists, and which demand similar interpretative skills and human empathy.

The moral of the story is, of course, that in our delightfully hybrid field of the history of the earth sciences the scientists have as much to learn from the historians as the historians have to learn from the scientists. In principle this may be familiar to members of HESS, to the point of being a pair of platitudes. But my own impression—as a reader of (and occasionally a contributor to) *ESH*, and currently with the honour of being president of HESS—is that in practice we all have a lot more work to do in realising the admirable objectives that were set by the Penrose conference. The scientists among us still often seem most concerned to prove that their own particular hero (or heroine) was the first to make a certain important discovery or find the correct solution to some decisive puzzle, without recognising—as historians do, as a matter of course - that these notions of first discovery and correct solution are as problematic in retrospect as they were contested at the time (usually for good reasons). On the other hand, the historians among us can hardly help being influenced by current trends in the wider history of science

community, which do not greatly esteem the close analysis of the technical content of past scientific work, and put a higher value on, for example, studies of its institutional organisation or its popularisation for a broader public (important topics in their own right, but no substitutes for the technically-informed history of scientific thinking and practice).

In much the same way, the scientists among us are still too prone to evaluate past scientific work in terms of its approximation to the current consensus. Yet the dramatic history of debates in the earth sciences within the past few decades—for example, over ideas of ongoing crustal mobility and occasional catastrophic episodes—should warn us all of the dangers of treating current ideas as the measure of ultimate reality. On the other hand, the historians among us are so thoroughly inoculated against the pitfalls of such "presentism" that little or no connection is made between the scientific conclusions reached by people in the past and the perceptual inputs (particular places and specimens, for example) and intellectual presuppositions that they may have shared with their modern successors. This robs historical studies of much of their huge—though indirect—relevance to modern practitioners of the earth sciences.

Earth Sciences History has the potential to help achieve the integration of our field—unifying the strengths of both the scientists and the historians among us—by publishing the kind of historical research that exemplifies it. But it can only do so if those who support this goal provide our editor with articles of high quality, and if we all encourage our colleagues to use ESH as their preferred outlet for their research in our field. To keep the periodical not merely afloat but steaming ahead, we also need to encourage many more of our colleagues to become members of HESS and thereby financial supporters of ESH. At present the membership is overwhelmingly North American; yet anyone who has taken part in meetings of INHIGEO, for example, will know that those with interests in our field are truly worldwide in distribution. The topics covered in our periodical go far to justify our society's ambition to be a global forum, but this is not yet reflected in our membership. So I hope that North American members of HESS can make a special effort to recruit friends and colleagues elsewhere in the world (though of course their compatriots are equally welcome!), and that members outside North America can make a similar effort to recruit those closer at hand.

The scholarly study of the history of the earth sciences is still a Cinderella, relative to that of the physical, chemical and biological sciences. It's up to us to change that situation, and to make the history of the earth sciences as prominent in its own way as earth scientists are within the worldwide scientific community.