EDITOR'S PREFACE

David Banks

He and Aaron assembled the whole community in front of the rock, and Moses said "Listen, you rebels! Do we have to get water out of this rock for you ?". Then Moses raised his stick and struck the rock twice with it, and a great stream of water gushed out and all the people and animals drank.

Numbers 20.10-11 (Good News Bible)

If our eye could penetrate the earth and see its interior from pole to pole, from where we stand to the antipodes, we would glimpse with horror a mass terrifyingly riddled with fissures and caverns.

Thomas Burnet, "Telluris Theoria Sacra", 1681

In the last issue, we had a chance to read eight "Selected Papers" from the recent IAH Congress at Ås, near Oslo, Norway, on the topic of "Hydrogeology of Hard Rocks". Those papers were largely written by "Moseses" - hydrogeologists concerned with tackling practical problems of water resources or severe pollution. In this issue, it is the turn of the "Thomases" - the theoreticians who often emphasize the complexity of natural fractured aquifers, and who converse in the universal Latin of modern times (often unintelligible to the uninitiated!), namely mathematics.

Fractured-rock hydrogeology was once of marginal interest within the groundwater community. When fractured rocks came under consideration, it was usual to try to approximate them to "normal, well behaved" porous-aquifer systems. The pendulum has now swung in the opposite direction. Hydrogeologists are rapidly discovering that their favourite sand and gravel aquifer is not really very homogeneous or isotropic at all; it displays preferential flow pathways and macropore systems, and it's beginning to bear a suspicious resemblance to a fractured rock in many ways! I believe that the number of contributions to the Congress is a reflection of the increasing recognition of the ubiquity of inhomogeneous, anisotropic and discontinuous aquifer systems in nature.

The Congress at Ås was, as you have hopefully heard, a great success. This was especially due to three factors:

- ◆ the fact that we enjoyed a continuous week of unbroken sunshine - an extremely rare occurrence in Norway - starting at around 3 am and continuing until 11-ish at night!
- ◆ the exceptional efforts of the Congress Chairmen, Jens-Olaf Englund and Erik Rohr-Torp, and their organizing committee headed by Rognvald "MacDonald" Boyd.
- ◆ the enthusiasm of the participants, lubricated by numerous social events (including a rather fine but highly unofficial vodka and mead party hosted by the Lithuanian delegation!)

It was a truly international event, with papers presented on the hydrogeology of various climatic regions ranging from arctic Svalbard and Novaya Zemlya, through temperate Jersey and Belgium to tropical India and Nigeria. Participants at the Congress included delegates from China, Mexico, Romania, Canada, Vietnam, Brazil, Namibia, Lebanon, Japan, Croatia, Yemen and Australia, to name but a few. The only slight disappointment was a noticeable lack of delegates from Eastern Europe and the ex-Soviet bloc (with, of course, several notable exceptions). This lack should give some pause for thought, especially for those with responsibility for promoting IAH membership and for those considering sponsoring members from low-income countries.

A final advertisement: the Proceedings (all 1200 pages, 110 articles and two volumes), are available from the Geological Survey of Norway (Postboks 3006-Lade, 7002-TRONDHEIM, Norway) at the bargain-basement price of 500 NoK.

Dave Banks,

writing from a comfy sofa somewhere in Chesterfield, U.K., January 1994.