

# EARTH SCIENCE AND SOCIETY: PREFACE

The seven papers included in this issue of *Geoscience Canada* were presented orally at the *Earth Science and Society* Summit Session held at GeoCanada 2000 – The Millennium Geoscience Summit. GeoCanada 2000, the largest-ever meeting of earth scientists in Canada, took place in Calgary in May and June of 2000 and attracted more than 5000 delegates from about 30 countries. At the meeting, three of the symposia, identified as Summit Sessions, focussed on issues of the day. One dealt with the future of the resource industries, a second with earth science research for the 21st century, and the third with earth science and society.

Papers following this Preface are from the *Earth Science and Society* Summit Session held at GeoCanada 2000. The seven papers in this issue represent but a quarter of the total number of papers presented at the *Earth Science and Society* Summit Session. Abstracts of the other papers can be found on the GeoCanada 2000 CD-ROM that is still available from the Geological Association of Canada. The oral sessions included four themes: 1) Earth Science and Health and Safety; 2) Earth Science and Human Activity; 3) Earth Science and Sustainable Development; and 4) Earth Science and Global Change. The first paper in this issue of *Geoscience Canada*, "The Earth and its People: Repairing Broken Connections" by Godfrey Nowlan, is intended as an introduction to the larger question of why we, as earth scientists, must communicate with the public and share our knowledge with them. It was also the first paper given in the Summit Session, and sets the stage for the topics and issues considered in following papers.

The first theme of Health and Safety included papers on Cadmium bioavailability by Barb Hale and colleagues, and on radon gas by Ken Ford and colleagues. Other papers in this session dealt with the geochemistry of

house dust, the good and bad science behind the asbestos furor, earthquake risk, and landslides.

The second theme of Earth Science and Human Activity included a paper on the state of sponge reefs in the marine offshore area of western Canada by Kim Conway and colleagues. Other papers in this part of the Summit Session dealt with resource development near national parks, ecotourism, paleontological resource management, and the teaching — or not teaching — of evolution.

The third theme, that dealing with Sustainable Development, included the papers published here on the Law of the Sea by Ron Macnab and Richard Hawthorn, on metals in the environment by Bruce Conard, and on deep ocean mining by Steve Scott. In addition, there were presentations on the groundwater resources of the Oak Ridges Moraine north of the Toronto area, groundwater pollution from municipal landfills, managing sulphur emissions in the petroleum industry, and nuclear fuel waste policy.

The fourth theme, Earth Science and Global Change, included papers on the history of red tides, the effect of gas hydrates on future climate change, the significance of measuring mercury emissions from natural sources, climate and water resources, and recent paleoclimatic change. Although none of these papers is included in this issue of *Geoscience Canada*, the abstracts for all of these presentations are available on the GeoCanada 2000 CD-ROM.

The purpose of this highly multi-disciplinary session was to draw attention to the many different threads that the earth sciences provide to the fabric of modern society. As conveners of this Summit Session we believe that it is crucial to alert Canadians and other citizens of planet Earth to the key role that earth resources and earth processes play in our society. We also want to draw atten-

tion to the ways in which human activity can adversely affect the planet, as well as providing a forum for earth scientists to address some of these issues. We hope that sessions like this will take place at future meetings of Canadian earth science societies, and that earth scientists will reach out to the public to explain how the earth sciences can help with day to day concerns of the population. If this happens, citizens of Canada and the world will be better attuned to earth resources and processes, and will recognize and appreciate the intricate connections between our civilization and the Earth on which it is developed.

We are grateful to all contributors to the *Earth Science and Society* Summit Session for helping to deliver a really wonderful session at GeoCanada 2000. We encourage readers of this issue to consult the other papers for which there are extended abstracts on the GeoCanada 2000 CD-ROM. We thank those who served as critical reviewers of the papers that follow, as well as *Geoscience Canada* Editor Roger Macqueen for his cooperation in enabling a selection of the papers to be published here.

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