

A geoscience community project
to produce a popular book on
the geology of Canada

“FOUR BILLION YEARS AND COUNTING: CANADA’S GEOLOGICAL HERITAGE”



“Four Billion Years and Counting” will present the latest view of Canada’s fascinating geology and how this impacts upon the lives of all Canadians. This multifaceted story will be much more than a scenic tour. The book will demonstrate the influence of geology on our wealth and health.

The book will be multi-authored, with text written by leading experts and edited to provide a cohesive story. Enticements for readers will include an exquisite selection of photographs and attractive graphics, all in full colour. The book will be written for a general readership but should also be of interest to geologists. Reviews by specialists and non-geologists will ensure accuracy and a book that will be enjoyable to a broad audience.

The project to produce the book is a “grassroots” initiative of the geoscientific community and will be one of Canada’s principal contributions to International Year of Planet Earth (IYPE) and will be co-published by the Canadian Federation of Earth Sciences.



Structure of the Book

PART 1: INTRODUCTION
Chapter 1 – Introduction

PART 2: FOUNDATIONS
Chapter 2 – On the rocks
Chapter 3 – The fourth dimension
Chapter 4 – Dance of the continents
Chapter 5 – Fossils and the Tree of Life
Chapter 6 – Reading the rocks

PART 3: THE EVOLUTION OF CANADA
Chapter 7 – Into deepest time [4.600 - 2500 Ma]
Chapter 8 – Finishing the foundations [2500 - 1800/1000 Ma]
Chapter 9 – Breathing space [1800/1000 - 600 Ma]
Chapter 10 – Passive west, active east [600 - 390 Ma]
Chapter 11 – Welding a supercontinent [390 - 250 Ma]
Chapter 12 – Pangaea breaks up [250 - 185 Ma]
Chapter 13 – Building mountains [185 - 55 Ma]
Chapter 14 – Canada shapes up [55 - 2 Ma]
Chapter 15 – Deep freeze and long summer
Chapter 16 – Peopling Canada
Chapter 17 – The modern landscape

PART 4: WEALTH AND HEALTH
Chapter 18 – Rocks to riches
Chapter 19 – Energizing Canada
Chapter 20 – Building Canada
Chapter 21 – Water: a clear necessity
Chapter 22 – At the beach
Chapter 23 – On dangerous ground
Chapter 24 – Environmental impacts
Chapter 25 – Nothing to sneeze at
Chapter 26 – Blowing hot and cold

PART 5: FINAL REFLECTIONS
Chapter 27 – Canada’s past: the key to its future?

(Titles provisional)

Timetable

2007
End February – first drafts due.
March-September – iterations between editors and contributors to produce draft for reviews.
End September – submission to specialist reviewers. (French edition: 15 November)
End November – submission to non-geologist contributing reviewers. (French edition: 15 January)

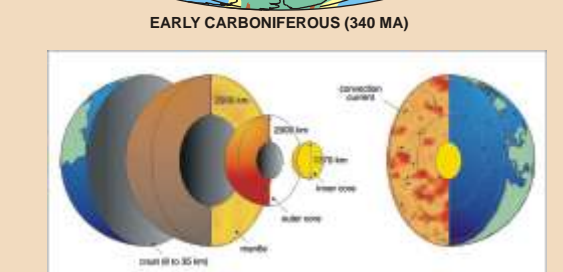
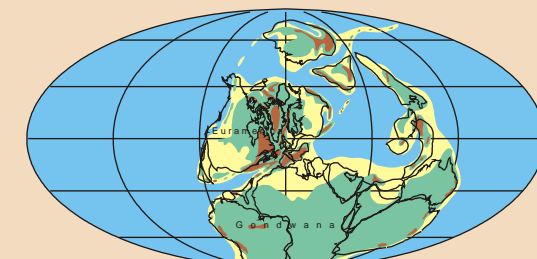
2008
February – submission to designer. (French edition: end March)
June – manuscript to printer. (French edition: end July)
August – release.

A variety of visuals to enhance and supplement the text

Specimens



Schematics



Paintings



Photographs of human interest



Photographs capturing the geology of Canada



How the project is organized

Editorial Board:

Aicha Achab (*Québec City*), John Clague (*Vancouver*), David Corrigan (*Ottawa*), Rob Fensome (*Dartmouth*), Jim Monger (*Vancouver*), Godfrey Nowlan (*Calgary*) and Graham Williams (*Dartmouth*).

Fund-raising Committee

Graphics Committee
Publication Committee

Many people across Canada (over forty to date) are contributing to the project by providing content (text, graphics, photographs), co-ordinating various aspects of the development and production, raising funds, sitting on committees and reviewing drafts.

Supporting organizations - a list destined to grow

Canadian Federation of Earth Sciences
Canadian Geological Foundation
Geological Association of Canada
Geological Survey of Canada
Prospectors and Developers Association of Canada

Need to know more?

Newsletters are available at www.cfes-fcst.ca/fby

Or contact these members of the Editorial Board:
Aicha Achab (*Québec City*) aicha_achab@ete.inrs.ca
John Clague (*Vancouver*) jclague@sfu.ca
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Want to make a financial contribution?

Please contact David Lentz (dlentz@unb.ca) for the tax exemption number.

Credits: Benoit Beauchamp, John Clague, Steve Colman-Sadd, David Corrigan, Carol Evenchick, Rob Fensome, Wayne Garland, Philip Giles, Chris Harrison, Andrew Henry, Alan Morgan, Gordon Oakey, Judi Pennanen, Chris Scotese, John William Webb, Heinz Wiele, Keith Vaughan and Atlantic Geoscience Society. IYPE logo courtesy of the International Union of Geological Sciences.

Cover: The Triassic-Jurassic boundary (in white layer), Five Islands Provincial Park, Nova Scotia. To the left, and at the top of the distant cliffs, is the North Mountain Basalt, the result of an early Jurassic mantle “belch”. © Wayne Garland.