## **BOOK REVIEW**

**Mirrors and Mazes** by Howard Thomas Brady. CreateSpace, 2016. 175 pp. \$17.10 (paperback). ISBN 978-1522814689.

This book raises a number of the points that demonstrate flaws and downright errors in the theory that human-generated carbon dioxide is the chief driver of global warming and climate change. The author has a respectable academic record; he worked and published on the geological and climatic history of the Ross Sea and McMurdo Sound regions of Antarctica, using microscopic fossils as clues.

For most of Earth's history, global temperatures were higher than now by several degrees Centigrade while animal as well as plant life flourished. There has been much more carbon dioxide in the atmosphere than now during lengthy periods when global temperatures were much lower, including in some Ice Ages. Moreover, during roughly half of the last 150 years, temperatures were not rising while carbon dioxide levels were increasing.

A common assertion in the mass media and by climate catastrophists is that global warming has already resulted in more frequent and more extreme storms and the like. But the actual data show that extreme weather events have *not* increased in recent decades; not Atlantic storms, nor Australian cyclones, nor U.S. tornadoes, nor "global tropical cyclone accumulated energy," nor extremely dry periods in the USA, in the last 150 years during which atmospheric carbon dioxide increased by 40% (pp. 46–51).

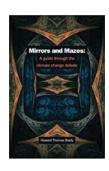
Nor have sea levels been rising in any unusual manner (Chapter 6). An important point here is that the best data come from local gauges, not from measurements made from satellites, which incorporate several assumptions and inevitable uncertainties.

The climate-change alarmists call wolf also over melting glaciers and disappearing polar ice sheets. They ignore historical facts and cherry-pick contemporary evidence. Thus while the extent of Arctic pack ice has indeed been declining fairly steadily for the last three or four decades, the Antarctic has gained in extent by roughly the same amount (p. 71; cited as from "US National Sea Ice & Data Centre," but actually the National Snow & Ice Data Center<sup>1</sup>).

Alarmist warnings assert that recent changes are unprecedented in scale and rapidity, but this is simply not true. Antarctic ice cores reveal greater Book Review 335

changes in the 18<sup>th</sup> and 19<sup>th</sup> centuries than any since 1950 (p. 81<sup>2</sup>).

Climate is controlled by a number of natural cycles, whose periods range from decades through hundreds of years to tens of thousands of years and even longer: cycles of sun-spot activity, of wobbles of the Earth, of movement of the solar system through the Milky Way, and many more.<sup>3</sup> Climate is determined by an exceedingly complex system comprising innumerable interacting sub-systems: large-scale movements and



regional currents in atmosphere and oceans, input of energy from the Sun, effects of clouds and greenhouse gases (water vapor being the predominant one by far), and much more. Some cycles suggest that the next century or so will see overall cooling rather than global warming.

Chapter 9 lays out the complexities of the greenhouse effect, which is quite different from the simplistic notion that it is all about carbon dioxide absorbing heat; water vapor is actually the major absorber of infrared radiation, i.e. heat. Perhaps the worst flaw in the computer models is the set of assumptions about how heat absorbed by carbon dioxide influences overall temperature: "There is empirical evidence that the equilibrium climate sensitivity index used by the IPCC [International Panel on Climate Change] for the past 30 years is far too high" (p. 93).

The notion that any computer model could accurately describe and predict the outcome of all these complexities is absurd.<sup>4</sup> Chapter 10 explains this in detail. Any model has to divide the atmosphere into bits ("cells"). In each cell all the influences have to be taken into account; and global conclusions require also taking into account the interactions between cells, which vary in both horizontal and vertical directions. So it is no surprise that all the models have been demonstrably wrong, predicting continually increasing temperatures while in reality there has been a pause, hiatus, or plateau of temperature since about the turn of the century (p. 99). Furthermore, the models predict a hot zone in the mid-troposphere that does not in fact exist (p. 105).

The disconnect between evidence and the alarmist propaganda has led a number of insiders to leave the ranks of "mainstream" climate science, for example Hans von Storch, professor of meteorology at the University of Hamburg and a leading author of the official 2001 IPCC Assessment Report (p. 41); a number of resignations from IPCC by prominent climate scientists are listed at pp. 150–151.

A paragraph on p. 157 refers to the harassment and persecution of researchers who question the primary role of human-generated carbon 336 Book Review

dioxide in climate change. For readers not already familiar with those many stories, this mention is too skimpy and lacks references for further reading. It does mention, though (albeit again without source citation), the particularly egregious occasion when people holding positions as scientists petitioned the government to bring charges of conspiracy against those who disagreed with them.<sup>5</sup>

The material presented in this book seems quite sound, but the book suffers from the typical deficiencies of self-publication: typos; other glitches, for instance the lack of fact-checking that allows a National Snow & Ice Data Center to be cited as National Sea Ice & Data Centre; most seriously, an index is lacking, which for a book of this kind is surely unforgivable. And the Selected Bibliography is inadequate, missing for example the books by Fred Singer. A much more comprehensive bibliography is given in Ian Plimer's *Heaven and Earth*, 6 which is cited in the Selected Bibliography.

## **Notes**

- The Arctic and Antarctic data are shown at http://nsidc.org/data/seaice\_index\
- <sup>2</sup> Citing (without page numbers) Thomas et al., A 308 year record of climate variability in West Antarctica, *Geophysical Research Letters*, 40.
- <sup>3</sup> David Dilley, Natural Climate Pulse: Global Warming—Global Cooling—Carbon Dioxide.
  - http://media.wix.com/ugd/857cde\_4e48a92c95df433ba869069b1dbcee 7d.pdf
- <sup>4</sup> For a more general discussion of the inability of computer models to handle genuinely complex systems, see Orrin H. Pilkey & Linda Pilkey-Jarvis, *Useless Arithmetic: Why Environmental Scientists Can't Predict the Future*, Columbia University Press, 2007.
- Letter to President Obama, Attorney General Lynch, and OSTP Director Holdren, 1 September 2015. http://scienceblogs.com/gregladen/2015/09/19/letter-to-president-obama
  - nttp://scienceblogs.com/gregladen/2015/09/19/letter-to-president-obama-investigate-deniers-under-rico
- <sup>6</sup> Ian Plimer, *Heaven and Earth. Global Warming: The Missing Science*, Connor Court Publishing, 2009.

## HENRY H. BAUER

Professor Emeritus of Chemistry & Science Studies
Dean Emeritus of Arts & Sciences
Virginia Polytechnic Institute & State University
hhbauer@vt.edu
www.henryhbauer.homestead.com