

SPECIAL THEME: THE GAIA HYPOTHESIS

Editor's Note

The Gaia hypothesis, a controversial theory about the degree to which life on Earth controls the planetary environment (e.g., Lovelock, 2000), has long been critiqued because of the difficulty of testing various sub-hypotheses. In part, this difficulty arose owing to a lack of clarity about critical definitions – e.g., what precisely was meant by ‘life’, ‘environmental control’, ‘benefit for life’, ‘self-regulation’, etc. (e.g., see my recent book review, Schneider, 2001, for an entry point to this debate). In this issue of *Climatic Change*, the first paper by Axel Kleidon aims to advance debate over the Gaia hypothesis by providing precise definitions of terms in order to facilitate empirical tests. However, like almost anything written about the Gaia hypothesis, controversy still abounds. Therefore, I am grateful that three insightful scientists with keen interests in this topic – James W. Kirchner, Timothy M. Lenton, and Tyler Volk – have agreed to write short papers using the Kleidon article as a springboard to present their varying views on the Gaia hypothesis. I hope that this diverse collection of opinions and analyses on Gaia will be of interest to the interdisciplinary climatological community and will contribute to the ongoing debate on the interactions of life with the rest of the environment.

References

- Lovelock, J.: 2000, *Homage to Gaia: The Life of an Independent Scientist*, Oxford University Press, Oxford, 416 pp.
- Schneider, S. H.: 2001, ‘Earth Systems: A Goddess of Earth or the Imagination of a Man?’, Review of *Homage to Gaia, The Life of an Independent Scientist* by James Lovelock, *Science* **291**, 1906–1907.

*Department of Biological Sciences,
Stanford University,
Stanford, California 94305,
U.S.A.*

STEPHEN H. SCHNEIDER
Editor

