



REVIEW: Eileen Crist and H. Bruce Rinker, eds., *Gaia in Turmoil: Climate Change, Biodepletion and Earth Ethics in an Age of Crisis*

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REVIEWS

Eileen Crist and H. Bruce Rinker, eds. *Gaia in Turmoil: Climate Change, Biodepletion and Earth Ethics in an Age of Crisis*. 371 pp. Cambridge, MA: MIT Press, 2010.*

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Gaia in Turmoil is the latest collaborative work put forth by the interdisciplinary group of Gaian thinkers. The contributors set out to meaningfully grapple with the bewildering ecological and social crises that humanity faces in this young century. Their work clearly rests on the assumption that such crises not only exist, but are dire—a conviction that unifies the essays in *Gaia in Turmoil*. By demonstrating how Gaia theory can advance various research projects, *Gaia in Turmoil* is an alarmist plea to integrate the Gaian perspective into mainstream thought as the next watershed paradigm through which humanity can survive and prosper.

Gaian research describes our planet as a closely interconnected and interdependent system consisting of the atmosphere, soil, and oceans in which each component influences the others producing favourable conditions for the current biota to prosper. In its strongest form, Gaia theory “boldly proposes that the biota controls the global environment in order to keep planetary conditions habitable, stable, and even optimal for all life” (p. 7). This view has generally been eschewed for its ostensibly teleological implications. Since its first expressions by James Lovelock in the early 1970s, Gaia theory has progressed beyond this extreme version and has produced a vast body of work accompanied by a legitimate academic discourse despite its still frequent judgment as “New Age mysticism” by critics. The present collection of essays is testament to the value of Gaia theory as a potentially fruitful framework deserving of continued examination. The status of Gaia theory as a scientific theory, however, remains to be determined and requires a much deeper analysis than this work offers.

* Received 11 July 2010.

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Taken as a whole, *Gaia in Turmoil* offers the general reader a telling glimpse into the realm of Gaian thought, while also contributing to the Gaian research programme in an engaging way. A few themes emerge as the leading preoccupations within the field. The reductionist paradigm, while productive until now, has been exhausted and must be exchanged for a holistic perspective of the world. As a result, Gaia theory is a fundamentally interdisciplinary framework accompanied by its own ontology and which guides thought by introducing new questions. Finally, a blend of alarm and hope pertaining to purportedly anthropogenic changes in Earth-wide systems unify the contributors in their sense of purpose and urgency. Ultimately, scholars, journalists, policymakers, politicians, scientists and the general population must pool their resources and jointly tackle the imminent crises of climate change and the ongoing loss of biodiversity on our planet. Humans must take responsibility for their actions because they have destroyed Gaia's delicate systemic balance and as a result have endangered their own survival.

Gaia in Turmoil is effectively structured to be both navigable and persuasive. It is divided into five sections that walk the reader through the history of Gaian thought, demonstrate what Gaian science is, and then develop a meaningful discourse on its implications for society both now and in the future. The index is excellent, and a much-appreciated supplement not always available in collections such as this one. Most chapters are supported by extensive endnotes, consolidating the impression that Gaian research is a serious discipline engaged in legitimate scholarly discourse.

The strains of Gaian thought represented in *Gaia in Turmoil* are of varying strength. While some contributors develop persuasive arguments that speak to the average person, others promote drastic measures that simply seem too extreme to even entertain as a possibility. In one of the better chapters, Karen Litfin advocates her theory of Gaian governance (pp. 195-219) by first concisely summarizing the literature and then building upon it in a rational manner. In contrast, Connie Barlow sloppily writes a short chapter (pp. 167-73) in which the final two pages spontaneously suggest that we "rewild" North America by reintroducing species that used to prosper there, such as lions and camels. The reader inevitably feels baffled at the thought since the notion is not properly discussed and the chapter ends abruptly.

Gaia in Turmoil urges us to reconfigure our perspective on humanity's status in the world. As one contributor incisively states, "Gaian thinking represents a return to a cosmology of human embeddedness rather than human exceptionalism" (p. 213). While this easily provokes religious reflection, this is not necessarily the end goal of Gaian research. The

forcible injection of religious overtones into what is more properly a scientific framework damages the credibility of the better chapters. This is where the structure of the work crumbles. In what is seemingly a solid conclusion to the work, Eileen Crist reflects upon the contribution of the Gaian framework as well as its weaknesses and uncharted territories. Unfortunately, a final chapter tacked on as an afterword leaves the reader uneasy; Eugene Linden calls for a new religious outlook suitable to twenty-first century knowledge with respect to the Earth, suggesting that the Gaian perspective may provide the foundation for such a new religious paradigm.

Gaia in Turmoil successfully convinces its readers that the Gaian programme deserves a close examination as a potentially fruitful framework for researching the novel challenges that humanity faces as it extends its influence to all parts of the Earth. It is a worthwhile read for self-avowed Gaians and the general public alike. Ultimately, "Gaia theory reiterates the message of global environmental degradation: there is no 'away'" (p. 206), and the sooner we face this reality, the better off we are likely to be.

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