

BOOK REVIEWS

Ricardo Rozzi et al., eds. *Earth Stewardship: Linking Ecology and Ethics in Theory and Practice*. New York: Springer International Publishing, 2015. 457 pages.

Earth Stewardship: Linking Ecology and Ethics in Theory and Practice, edited by Ricardo Rozzi, F. Stuart Chapin III, J. Baird Callicott, S. T. A. Pickett, Mary E. Power, Juan J. Armesto, and Roy H. May, Jr., is the second volume in the Ecology and Ethics Series which was created to support the integration of global perspectives and disciplines with a sustained, active reorientation around care and stewardship of ecosystems and the Earth in a globally balanced manner. This project is an outgrowth of the Cary Institute of Ecosystem Studies's fourteenth conference, with the same title as this book, which was organized by Chile's Institute of Ecology and Biodiversity and the U.S.'s University of North Texas in 2011.

This volume begins with an introduction and then is divided into three parts. Chapter one is the introduction, "Linking Ecology and Ethics for an Interregional and Intercultural Earth Stewardship," by Ricardo Rozzi and F. Stuart Chapin III et al. This chapter lays the foundation for the volume's twofold goals of, first, integrating ecology and ethics and, second, broadening the geographic coverage and theoretical dimensions of the global stewardship network. An additional focal point of this volume is to consider the long-term ecological and socio-ecological research networks (LTER and LTSER), along with other research networks, in light of these goals.

Part one, "A Biocultural Approach to Earth Stewardship," comprises nine contributions which, taken as a whole, elucidate the ways in which Earth stewardship operates at the intersection of biophysical and cultural spheres, in order to suggest ways these collaborations should be supported and expanded as much as possible. Chapter two, "Ecological Science and Practice: Dialogues across Cultures and Disciplines," by Sharon Kingsland, analyzes the split and interdependence between scientists and those who harvest sea life for a living in the Chesapeake Bay, Maryland. Hideaki Shibata's contribution for chapter three is "Biogeochemistry and Traditional Ecological Knowledge and Practices in Japan," which calls attention to the way science can be (and is) collaborative with Japanese traditions. In chapter four, "Aesthetic and Moral Appreciation of Nature in Philosophical Traditions of China," Shan Gao discusses just what the title indicates. In chapter five, "The Antlers of a Trilemma," Fausto O. Sarmiento considers the tripartite way the Quechuan worldview incorporates culture within the greater global context. Vincenta Mamani-Bernabe highlights Andean worldviews (of the *Pachamama*) that also assume humans are integrated within the natural world in chapter six, entitled "Spirituality and the Pachamama in the Andean Aymara Worldview." In chapter seven, Roy H. May, Jr. points out that the origin of the very concept of

Earth stewardship arises from ancient traditional cultures, in “Andean Llamas and Earth Stewardship.” Ricardo Rozzi contributes both chapters eight and nine. In chapter eight, “Earth Stewardship and the Biocultural Ethic: Latin American Perspectives,” he maintains that the central environmental crisis is one of values, wherein the value of capital is artificially inflated over the value of life in current mainstream culture. Then, in chapter nine, “Implications of the Biocultural Ethic for Earth Stewardship,” he reinforces the idea that marginalized voices already contain elements of environmental stewardship and need to be validated to a much greater extent. Chapter ten, “The Politics of Earth Stewardship in the Uneven Anthropocene,” is coauthored by Laura Ogden, Nik Heynen, Ulrich Oslender, Paige West, Karim-Aly Kassam, Paul Robbins, Francisca Massardo, and Ricardo Rozzi. This contribution discusses the way that developing countries are affected more drastically by the harmful environmental consequences of global assemblages than developed nations.

Part two is entitled “Integrating Stewardship across Disciplines and Scales,” and is primarily focused on clarifying the complex ways in which Earth stewardship functions throughout various cultural contexts and according to increasing scales, as well as across disciplines (including arts and humanities as well as sciences). This section draws significantly from the LTER and LTSER networks that have made great strides at forging a global connection among many diversely grounded practitioners of Earth stewardship. Chapter eleven, by J. Baird Callicott, is “The Centennial Return of Stewardship to the Ecological Society of America.” Here, Callicott outlines the history of struggle and resolution between the science of ecology and the priority of public advocacy within the Ecological Society of America. In chapter twelve, “Earth Stewardship: An Initiative by the Ecological Society of America to Foster Engagement to Sustain Planet Earth,” Stuart Chapin, S. T. A. Pickett, Mary E. Power et al. use case studies in order to illustrate the various ways in which scientists can bolster the beneficial effects of stewardship. Chapter thirteen, by Ben Li, Terry Parr, and Ricardo Rozzi, analyzes the thematic and geographic distribution of research of the ILTER (International Long-Term Ecological Research Network). Chapter fourteen, by Manuel Maas and Miguel Equinua, continues the trajectory of chapter thirteen by calling for a transdisciplinary approach to aligning science with socioecological systems in order to best facilitate the increase of Earth stewardship and the expansion of the ILTER. Jorge F. Aguirre Sala’s “Hermeneutics and Field Environmental Philosophy” (chapter fifteen) identifies obstacles for integrating ethics and ecological sciences into Earth stewardship, as well as ways to overcome these obstacles. Chapter sixteen, co-authored by Lissy Goralnik, Michael Paul Nelson, Leslie Ryan, and Hannah Gosnell, emphasizes the role of, and challenges for, the arts and humanities within the ILTER project. Charles L. Redman and Thaddeus R. Miller, in chapter seventeen “The Technosphere and Earth Stewardship,” suggest that a new conceptual framework, centering on infrastructure technology, is a significantly accurate one for describing our contemporary global world. Chapter eighteen, “Using the Ecosystem Services Framework in a Long-

Term Socio-Ecological Research (LTSER) Platform,” by Daniel E. Orenstein and Elli Groner, provides a case study of implementation of the ILTER framework of cooperation in Nadi Araba, a desert near Israel. Olga Barbarosa and Paula Villagra have contributed “Socio-Ecological Studies in Urban and Rural Chile” as chapter nineteen, in which they discuss projects in Chile that can be analyzed according to the ILTER concepts.

“Integrating Ecology and Ethics as a Foundation for Earth Stewardship Action” is the third and final part of the book. This section consists of chapters devoted to a forward-looking perspective, and the highlighting of ideas, current projects, and potential future directions for Earth stewardship, particularly emphasizing the empowerment of individuals and/or citizenry to achieve that end. Chapter twenty, “Stewardship versus Citizenship,” by Eugene Hargrove, advocates applying the concept of citizenship to help stewardship gain more widespread global acceptance. In chapter twenty-one, “The Ethics of Participatory Processes,” Peter Taylor discusses the vital significance of engaging people on a global scale in the processes of Earth stewardship. Ernesto C. Enkerlin-Hoeflich, Trevor Sandwith et al., “IUCN/WCPA Protected Areas Program,” argue that the emphasis on protected areas, at the 2014 World Parks Conference in Australa, serves as a model for ways to enact earth stewardship in a significant and effective manner, in chapter twenty-two. In “Ecology and Education in Marine Protected Areas,” chapter twenty-three, by Flavio Berchez, Andres Mansilla et al., further support Taylor’s arguments from chapter twenty-one regarding the International Union for the Conservation of Nature (ICUN) and its effective implementation of strategies in Brazil. Chapter twenty-four, “Earth Stewardship, Climate Change, and Low Carbon Consciousness,” by Eduardo Viola and Larissa Basso, then continues the trajectory of the previous chapters by discussing Brazil and South America with respect to some problems that have arisen because the economic sector of societies have undue influence on the government, which in turn hinders implementation of ethical ecological practices. Uruguayan theologian Guillermo Kerber provides some religious perspective on the interfaith Climate Initiative of the World Council of Churches and its emphasis on de-centering humans from value-based decision making, in his chapter twenty-five: “Stewardship Integrity of Creation, and Climate Justice: Religious Ethics Insights.” In chapter twenty-six, “World Religions, Ethics, and the Earth Charter for a Sustainable Future,” theologian Mary Evelyn Tucker highlights six concepts that she finds are ubiquitously shared across religions’ traditions, which, she points out, also have been adopted by the United Nations’ Earth Charter Initiative. In chapter twenty-seven, “*Dorothy Stang: Monkeys Cry and the Poor Die*,” Roy H. May, Jr.’s second contribution considers the degree to which Earth stewardship is an example of liberation ecology. Stang was a Catholic who practiced Earth stewardship in the Amazon in 1966. May traces the origin of the correlation between Catholicism and Earth stewardship in Latin America to the 1500s. Fernando José Rodrigues and Fabio Valenti Possamai then consider the story of “Chico Mendes and José Lutzenberger” as the interplay between a grassroots

organizer and the Minister for the Environment for Brazil in the 1990s in chapter twenty-eight. The biographies of the last two chapters (chapters twenty-seven and twenty-eight) represent the level of danger and commitment involved in devoting oneself to Earth stewardship, a commitment that is nonetheless required in order for our Earth to survive. The ultimate chapter of the project, chapter twenty-nine, "On Frank Golley's International and Interdisciplinary Insights for a Twenty-First Century Earth Stewardship Based on Environmental Ethics," by Alan P. Covich, extends this idea by analyzing the far-reaching influence of a professor who was also president of various ecological associations.

This book does a superior job of bringing home to the reader the concept that Earth stewardship is far more than merely an academic exercise; its global reach is significantly actualized and growing. The overarching theme binding the chapters together is the idea that a global network of practitioners of Earth stewardship is already currently in existence, albeit several directions are suggested for its improvement and sustained growth. There are other themes running throughout the project as well, such as the importance of praxis above that of research and innovative ideals, and emphases on inter and trans-disciplinary integration of research and ideology, as well as the need for more globally balanced data. The idea of grassroots empowerment is also carried throughout.

Overall, the work will prove to be useful and interesting to anyone in the fields of environmental studies, environmental philosophy, or public policy. It will also be a beneficial tool for graduate students in environmental, public policy, or global studies. In addition, the book should also be of interest to politicians inasmuch as environmental research and theory is clearly useful information to those in positions of power to shape and determine public policy, and this project is an exemplary extension of that. The conference from which this book evolved is evidence of the degree to which a global coalition has coalesced around the focal point of Earth stewardship, and consequently the project itself is a welcome and useful tool for maintaining that momentum both in terms of academic research and in the wider cultural-political milieu.

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