

Biodemocracy and the Earth Charter

with Matthew T. Riley, "The Earth Charter and Biodemocracy in the Twenty-First Century"; Mary Evelyn Tucker, "The Earth Charter and Journey of the Universe: An Integrated Framework for Biodemocracy"; Heather Eaton, "Global Visions and Common Ground: Biodemocracy, Postmodern Pressures, and the Earth Charter"; and Matthew T. Riley, "The Democratic Roots of Our Ecologic Crisis: Lynn White, Biodemocracy, and the Earth Charter."

THE EARTH CHARTER AND *JOURNEY OF THE UNIVERSE*: AN INTEGRATED FRAMEWORK FOR BIODEMOCRACY

by Mary Evelyn Tucker

Abstract. The principles of the Earth Charter and the cosmological story of *Journey of the Universe* provide a unique synergy for rethinking a sustainable future. The Great Story inspires the Great Work of the transformation of the political, social, and economic orders. Such a synergy can contribute to the broadened understanding of sustainability as including economic, ecological, social, and spiritual well-being. This integrated understanding may be a basis for creating biodemocracies, which will involve long-term policies, programs, and practices for a planetary future that is not only ethically sustainable, but also sustaining for human energies.

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AN OVERVIEW OF THE EARTH CHARTER

The Earth Charter is both a document and a movement. It draws on scientific knowledge, legal principles, sustainability practices, ecological economics, the precautionary principle, and equity issues. In its decade-long drafting process, it involved thousands of individuals and groups from around the planet and is the most inclusive civil society document ever negotiated. It provides a valuable perspective for creating biodemocracies and ecological cultures in the future.

As a people's treaty, it is a soft law document that is complemented by the hard law of international covenants and laws. It has been endorsed by

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such international agencies as United Nations Educational Scientific and Cultural Organization (UNESCO) and the International Union for the Conservation of Nature (IUCN), the largest body of conservationists in the world. It is also endorsed by thousands of individuals and groups as well as by a number of countries and cities, including the U.S. Conference of Mayors in 2001. The implications for the application of the Charter is seen in *The Earth Charter in Action*, a book of inspiring stories from around the world—ranging from youth to civil servants and government officials (www.earthcharterinaction.org).

At the Earth Summit in Rio de Janeiro in 1992, Mikhail Gorbachev and Maurice Strong called for a global ethics to guide sustainable development. An international committee chaired by Steven Rockefeller from 1996 to 2000 drafted the Charter. A distinguished group of international civil servants served as Earth Charter Commissioners for the drafting process and now an Earth Charter International Council guides the activities of the Charter. There is a Secretariat and a website based in Costa Rica at the University for Peace.

The Charter offers a comprehensive framework for revising sustainability as balancing the needs for economic development with environmental protection. It presents an integrated set of principles to guide our emerging planetary civilization that is multinational, multicultural, and multireligious. It provides a platform for shared commitment to the flourishing of biosocial planetary life systems along with differentiated responsibilities. This is a framework for creating effective biodemocracies.

The key components of the Earth Charter are: (1) cosmological context, (2) ecological integrity, (3) social and economic justice, (4) democracy, nonviolence, and peace. The essence of *Journey of the Universe* is to expand our understanding of the cosmological context and the importance of ecological integrity so that justice and peace can flourish. *Journey of the Universe* narrates the story of our cosmological context while the Earth Charter outlines a global ethics. Together they provide critical components for grounding sustainability principles and practices in the context of biodemocracies.

COSMOLOGICAL CONTEXT

All cultures have been grounded in the stories they tell regarding the nature of the universe, the evolution of the Earth and of life, and the destiny of humans in this context. These cosmological stories provide accounts of the creation and evolution of life and the purpose of humans. As humans are currently trying to navigate their way between scientific accounts of evolution and the multiple religious stories of creation, the Charter articulates a broad, simple, and inclusive sensibility that Earth is our home, our dwelling place. This is what *Journey of the Universe* provides

as well, a large-scale cosmological context for understanding our role in the future of the Earth community.

This enlarged perspective of home may be a critical foundation for articulating a future that is both sustaining and flourishing. Both *Journey of the Universe* and the Charter recognize that we are part of a large family of life, including not only other humans but also other species. The interdependent quality of the Earth community is celebrated in *Journey* and in the Charter, along with the fact that the conditions for life have been evolving for billions of years. "Humanity is part of a vast evolving universe. Earth, our home, is alive with a unique community of life. The forces of nature make existence a demanding and uncertain adventure, but Earth has provided the conditions essential to life's evolution."

Thus to speak of the broadest context for the flourishing of bio-social systems within biodemocracies, we need to be reminded of the cosmological, evolutionary story of life's emergence as described in *Journey of the Universe*. The spiritual and ethical response to this epic story is one of reverence, a quality shared by many scientists who are deeply inspired by their study of nature from cells to galaxies, enhanced now by powerful microscopes and telescopes. The intricacy and complexity of life is valued from both a spiritual and a scientific perspective. Awe and wonder are expressed through the shared experience of reverence. This sense of reverence is what the *Journey* film and book evoke and what the Charter invokes as well.

ECOLOGICAL INTEGRITY

The broad context for sustaining and flourishing biodemocracies from the perspective of the Earth Charter is preserving ecological health and integrity. Without such a foundation for healthy ecosystems, there can be no long-term basis for the continuity of human life and the creation of biodemocracies. This is expressed succinctly in the Preamble as follows: "The resilience of the community of life and the well-being of humanity depend upon preserving a healthy biosphere with all its ecological systems, a rich variety of plants and animals, fertile soils, pure waters, and clear air."

Journey of the Universe depicts the splendid biodiversity of life and shares with the Earth Charter a call for biological protection and restoration. They both invoke the principle of respect for the rich diversity of life and the ecosystems that support life. Without such respect, environmental exploitation will continue and we may irreversibly damage the ability of ecosystems to renew themselves. This is further spelled out in the Charter as protecting Earth's ecosystems by preventing harm through the precautionary principle, adopting effective patterns of production, consumption and reproduction, and advancing the study of ecological sustainability. These are

aspirations for biodemocracies in the future. The Earth Charter then provides an ecological context for establishing the foundations for social and economic justice and creating institutions of democracy, nonviolence, and peace.

OVERVIEW OF *JOURNEY*: A DYNAMIC COSMOLOGICAL STORY

Journey of the Universe (Swimme and Tucker 2011a, 2011b) narrates the 14 billion year story of the universe's development, from the great flaring forth at the universe's inception to the emergence of simple molecules and atoms to the evolution of galaxies, stars, solar systems, and planetary life of greater complexity and consciousness. This is a story that inspires wonder as we begin to understand such intricacy through science and appreciate such beauty through poetry, art, history, religion, and philosophy. Indeed, *Journey* is a fusion of science and humanities. It awakens us to the dynamic processes of evolution that are chaotic and destructive, as well as creative and life generating. *Journey* recognizes violence and upheaval in stellar and Earth processes, as evident in star bursts as well as in geological and biological eruptions.

Journey of the Universe is a cosmology, although not just in the scientific sense of the study of the early universe. Rather, it is a cosmology in the sense of being an integrated story that explains where both humans and life forms have come from. All cultures have had such stories. We now have the capacity to tell a comprehensive story drawing on astronomy and physics to explain the emergence of galaxies and stars, geology and chemistry to understand the formation of Earth, biology and botany to trace life's evolution, and anthropology and history to see the rise of humans. *Journey* draws on all these disciplines to narrate a story of universe, Earth, and human evolution that is accessible to everyone. This is the first such telling of the story in film form and no doubt there will be other expressions, both scientific and artistic. Indeed, there was a remarkable performance of the "Emergent Universe Oratorio" inspired by *Journey* that was performed in September in Vermont at Shelbourne Farms near Burlington. A thousand people attended.

Journey weaves science and humanities in a new way that allows a comprehensive sense of mystery and awe to arise. This approach expands the human perspective beyond an anthropocentric worldview to one that values life's complexity and sees the role of humans as critical to the further flourishing of the Earth community. This is the basis for a biodemocracy.

Therefore, *Journey* does not rely on reductionist scientism, which tends to see the universe and Earth as simply composed of mechanistic processes. In contrast, *Journey* recognizes that evolution is governed by natural laws discoverable by scientific methods and empirical observation. The self-organizing dynamics of evolutionary processes are part of the remarkable

creativity of evolution, which humans are discovering. While humans are gifted with the creativity of symbolic consciousness, we know that different kinds of self-organizing creativity abound in the universe and Earth—the formation of galaxies and stars, the movement of tectonic plates, the chemistry of cells, the biological complexity of photosynthesis, the migrating patterns of birds, fish, turtles, and caribou. Creativity is also closely aligned with chaos and destruction as the universe unfolds on the edge of a knife.

Journey, then, is a dynamic cosmological story of the unfolding of the universe and Earth in which life and humans emerge. This story is told in a poetic manner while relying on our best knowledge from modern science. Scientific facts and poetic metaphors are interwoven so that viewers of the film or readers of the book can understand how they arose from these creative processes and participate in them. This weaving is in the spirit of Loren Eiseley, the American anthropologist and nature writer, whose books and voice are a major influence on *Journey of the Universe*.

Such a cosmological perspective is both ancient and modern—embedded in certain aspects of the world religions and revealed anew in the scientific story of the universe. Thus science and religion help us to recognize ourselves as participating in a larger integrated whole. Humans are the microcosm of the macrocosm—they are the mind and heart of the vast evolving universe.

In this spirit, images and metaphors from the wisdom traditions of the world religions and philosophies are woven into *Journey of the Universe*. Indeed, there are numerous affinities between the world religions and *Journey*, some of which are described in the talks that were delivered at the Chautauqua Institution conference in New York on “Our Elegant Universe” in June 2013 (www.journeyoftheuniverse.org/conference-at-chautauqua/).

Moreover, the extensive work of the Forum on Religion and Ecology at Yale (<http://fore.research.yale.edu/>) is also a complement to *Journey of the Universe* as both these projects are concerned with our growing ecological crises. As such they are trying to awaken humans to recognize our biological dependence on nature’s remarkable intricacy and to find a way forward amidst the unraveling of ecosystems and social systems.

THE GREAT TRANSITION AND THE GREAT WORK

Journey of the Universe, then, is not simply a beautiful story, it is a functional cosmology, as Thomas Berry suggested, namely, a living cosmology (Berry 1988, 1999, 2006). This is because it harnesses the energy of awe and wonder for the multiple efforts of humans to contribute to the flourishing of the Earth Community. This is what Berry called the Great Work in which humans will become a mutually enhancing presence for Earth’s systems and societies. He felt this work could assist in the transition from the Cenozoic era, which began 65 million years ago, to the emerging

Eozoic era. Many geologists are recognizing this great shift and observing that we are moving from Holocene period of the last 12,000 years to a new period called the Anthropocene because of the effect of humans on Earth's ecosystems.

Our time of "Great Transition," as Paul Raskin and his colleagues have termed it, is calling forth new principles and perspectives, policies and practices. *Journey* is making a contribution to this transition on the level of cosmological principles, broad evolutionary perspectives, and geological and ecological understanding to inspire practical policies and engaged practices. *Journey* aims to provide renewed "inspiration for the perspiration."

Indeed, there are hundreds of thousands of people around the planet who are participating in this transformative work for the environment and energy, agriculture and food, economics and politics, education and the arts. This also includes work for sustainable cities and improved racial relations. Many of these specialists, who are inspired by the comprehensive perspective of *Journey of the Universe*, are interviewed in the twenty-part educational series of *Conversations* (Swimme and Tucker 2011c). In this same series, scientists deepen our understanding of the evolutionary process with their own specialized knowledge. This knowledge frequently enhances the transformative work being done on the ground (www.journeyoftheuniverse.org/ed-series-previews/).

To participate in this transformative work, we are not suggesting that it is necessary to be informed by *Journey of the Universe*. We are, however, noting that many people are moved to action by seeing themselves as part of a larger whole, namely, a vast evolving universe. Indeed, some environmentalists, such as the rain forest activist John Seed, have been reinvigorated for their work because of this integrated cosmological perspective of science and humanities. This engaged action can contribute to an emerging sense of a biodemocracy.

CONCLUSION

This integration of the principles of the Earth Charter with the cosmological story of *Journey of the Universe* provides a unique synergy for rethinking a sustainable future. Such a synergy can contribute to the broadened understanding of sustainability as including economic, ecological, social, and spiritual well-being. This broadened understanding may be a basis for creating biodemocracies, which will involve long-term principles, policies, and practices for a planetary future that is not only ecologically sustainable, but also sustaining for human energies. For at present we face a crisis of hope that we can make a transition to a viable future for the Earth community. The potential of *Journey of the Universe* to provide inspiration for the flourishing of the community of life is significant. The potential

of the Earth Charter to create an ethical framework for sustainable plans and practices is considerable. Together they may provide a comprehensive grounding for creating the foundations for envisioning a shared future in differentiated biodemocracies.

NOTE

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