## Review/Critique/Reseña

## UNLESS AND UNTIL: A BAHÁ'Í FOCUS ON THE ENVIRONMENT

Author: Arthur Lyon Dahl

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In recent years, Bahá'í institutions have helped shape the global dialogue on both the environmental ills facing humanity and the quest to achieve sustainable relationships between human societies and the global earth system. Bahá'ís around the world are working to demonstrate ecological solutions to environmental problems in their own localities, based on the creative integration of useful knowledge and the spiritual principles of their Faith. With these new involvements comes the need to communicate the Bahá'í teachings' immense relevance to the contemporary environmental crisis. Arthur Dahl's book is a significant step in meeting this need.

Unless and Until is a Bahá'í conceptual blueprint for achieving a sustainable global environment. It is a review of the relevance of Bahá'í principles to achieving harmony between humans and nature. By the time the reader arrives at the final chapter, he or she should be well prepared to consider the merits of the Bahá'í approach.

The book begins with a discussion of the origins of the universe, the organization and interdependence of the natural world, and the particular station of humans that derives from the unique human faculty of scientific inquiry. Citations from the writings of Bahá'u'lláh and 'Abdu'l-Bahá corroborate recent scientific discoveries and attest to the harmony between science and religion. The author reviews scientific and Bahá'í evidence for the process of evolution. He argues that this process applies equally to biological and social systems, and leads to greater interaction, efficiency, and adaptability. In biological systems, the process results in complex symbioses and food webs; in social systems, in greater cooperation and reciprocity. The discussion sets the stage for considering the complex, ever-changing relationships among soil, water, air, and living organisms that comprise the biosphere.

Through the insights of science, we now see the biosphere as a self-regulating system. Within the biosphere, we recognize a complex organization of interconnected ecosystems, which themselves reflect integration of still finer levels of organization. This marvellous complexity of nested systems—from the molecular to the planetary—is a dynamic unity in which the functions of the whole depend upon the harmony of the constituent parts.

The author next applies this holistic thinking to the realm of human society. Bahá'í teachings on the biological, intellectual, and spiritual reality of human beings provide the context for an overview of human social evolution. The author sees this process as one of increasing communication and cooperation among human communities, leading ultimately to a unified global society. The present turbulent period in global relationships is seen as one of "dislocation"

and transformation as pressures increase for recognition of the whole world as a single unitary system" (23).

The author then reviews a litany of human influences on the earth's resources that are beginning to affect the life-support system of land, water, and atmosphere. He documents evidence associated with climatic change, acid rain, ozone depletion, pollution of rivers and seas, toxic waste, soil erosion, conversion of prime agricultural land to other uses, depletion of nonrenewable resources, and loss of biological diversity. The impact of the human technologies responsible for these changes, once local, is now planetary. In humanity's efforts to address these influences, we see the initial stirrings of the unprecedented cooperation that must soon become the norm. Future societies will necessarily weigh the short-term versus long-term implications of technologies for the earth and for the material and spiritual advancement of its citizens. The author notes that some of the damage this age of ill-considered technology has inflicted on the environment, such as extinction of species, will be irreparable. However, on pages 54-55, he affirms his optimism that, following this turbulent transitional period, humankind will be able to restore planetary ecosystems. Speculating on the future, Dahl foresees a sustainable world civilization based on a diversified agriculture that fully utilizes the biological richness of the planet and is "integrated into complex ecosystems of which humankind will form an integral part" (54),

The final third of the book sets forth the Bahá'í vision of the future world social system. Only as individuals acquire the qualities associated with their spiritual nature, such as love, forgiveness, justice, and compassion, will they "make possible the higher levels of human interaction required to build an organic world society" (61) that can achieve planetary sustainability. Contemplation of the profound spiritual significance of nature and of the interrelationships of spiritual, social, and physical environments are seen as hallmarks of this emerging world civilization. Noting the modern-day collapse of traditional value systems based on respect for nature and their replacement with "materialistic philosophies which have given rise to the modern attitudes and economic and political systems that are driving our planet to ruin," the author states that "only a rediscovery of these eternal spiritual and ecological values can create the necessary ground swell for change and ultimately shift the momentum of our society in a new and more sustainable direction" (72).

The author draws an analogy between the characteristics of coral reef ecosystems, on which he is a recognized scientific authority, and the human communities that must characterize the world of the future. He notes that the exceptional diversity and productivity of coral reefs, despite the scarcity of available nutrients, is due to their remarkable efficiency in absorbing and using solar energy, in utilizing energy and nutrients through complex food webs that involve many symbiotic relationships among species in interlinked biological communities, and in recycling nutrients so that little is lost from the system.

Similarly, Dahl argues, must future human communities incorporate a high degree of decentralization, local autonomy, adaptability to unique local environments, cooperation with adjacent communities at larger geographical scales, and effective mechanisms for maintaining a healthy environment. He uses this analogy to introduce the Bahá'í model for building a unified community structure that draws on the full diversity of human talents at the local, national, and international levels. In response to the author's description of the nested consultative structure inherent in the Bahá'í administrative order, this reader found himself making his own analogy with the earlier description of the nested hierarchy of biological organizations that comprise the biosphere.

The book is well researched from both a Bahá'í and scientific perspective. The author's statements on the status of scientific understandings seem to reflect prevailing views of leading authorities. However, scientific credibility would be improved by including citations of scientific references along with Bahá'í references in future printings. I noted one small error, on page 27. The reported levels of atmospheric carbon dioxide, a trace gas, should be 270ppm or 0.027% (vs 2.7%) and 340ppm or 0.034% (vs 3.4%), respectively. On page 28, paragraph 2, line 6 should probably refer to poleward shifts of zones of temperature rather than zones of rainfall, for which such geographical shifts are much more problematical.

The book concludes with a conceptual blueprint for restructuring human institutions, economic and technological systems, and social relationships to sustain the global environment. In the author's words, the

reconstruction of human society will require both the rediscovery and development of our spiritual nature and the union of all the nations in the best interests of all humankind. If we are to move beyond our immediate environmental crisis we must accept the oneness of humanity and our oneness with the natural world, a world where, in the words of Bahá'u'lláh, we are all "the fruits of one tree, and the leaves of one branch." (89)

The reader is left to conclude that unless and until we heed this admonition, global sustainability will remain an elusive dream.

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