EARTH ETHICS, EARTH LITERACY, AND THE COMMUNITY COLLEGE

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Summary

The article below will explore the current environmental crisis on Earth in all its various dimensions, with special attention given to the community college role in understanding and fostering sustainable solutions for this crisis. Miami Dade College, the largest community college in the United States, will be examined in detail in terms of its efforts to integrate Earth Literacy and Earth Ethics into its curriculum and instruction as a way to help understand the concept of sustainability and the environmental challenges facing Earth and its life support systems. The article will end with speculations about the future directions of community colleges related to sustainability and the environment.

1. Introduction

In terms of the Earth and its future, there is little doubt that the planet is in crisis and that no matter how sustainability is defined, it remains a distant hope. In the World Scientists' Warning to Humanity of 1992, over 1700 of the world's leading scientists and the vast majority of Nobel laureates in the sciences warned of a litany of planetary ills which threaten Earth. In 1997, in Kyoto, Japan, scientists again warned humanity. There are numerous other iterations and evidence of the state of Earth such as those from the United Nations Environment Programme (UNEP), the Millennium Ecosystem Assessment, the Scientific Committee on Problems of the Environment (SCOPE,) and more. The consensus among scientists is that Earth is threatened by human action. They state, "We … warn all humanity of what lies ahead. A great change in our stewardship

of the earth and the life on it, is required, if vast human misery is to be avoided and our global home on this planet is not to be irretrievably mutilated."

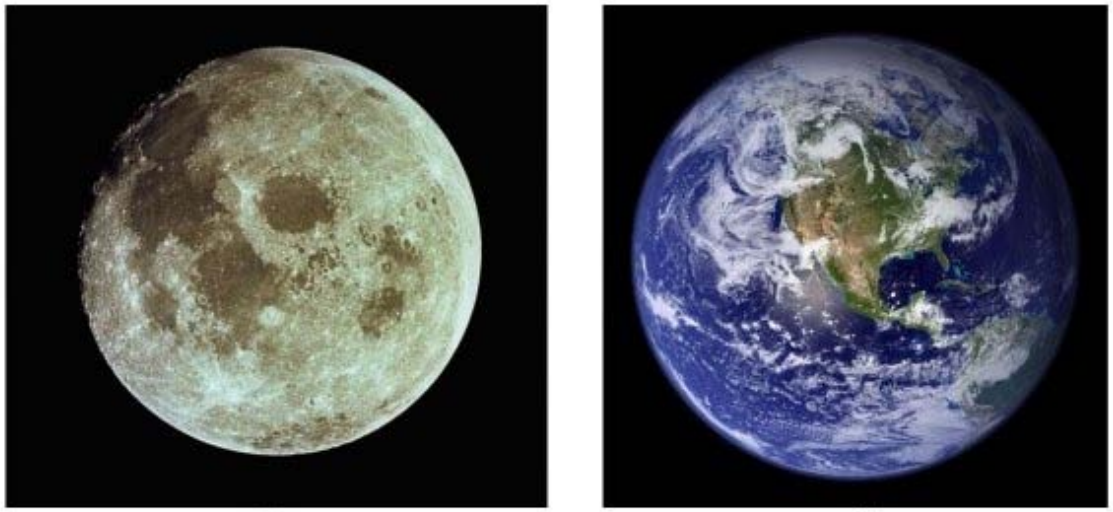

Figure 1 a) Moon from Apollo 11 b) Earth Western Hemisphere

Data from NASA's Lunar Prospector spacecraft supports the impact theory first proposed by William K. Hartmann and Donald R. Davis, in 1975. They theorized that when Earth formed 4.5 billion years ago, other smaller planetary bodies were developing. One of these impacted Earth during Earth's growth process, blowing out molten debris. A portion of the debris went into orbit around Earth and aggregated into the moon. While made of the same stuff as Earth, it is clear that the moon evolved into a relatively lifeless satellite and lacked the crucial factors which have allowed Earth to evolve and develop life systems. The two images above show the dramatically different potential futures for Earth – life or less life.

Humanity is conducting a sustainability experiment in which Earth and humanity itself are at once the subject and the control. Humans are experimenting with Earth and human existence with little caution or responsible safeguards. There is no other planet to practice with or run to if this experiment gets the better of the experimenters. Following the Precautionary Principle for this experiment would seem to be the logical course of action, particularly when knowledge about outcomes is limited and the impact is potentially harmful. Yet, humans continue to act as if there were no problem.

Some skeptics of science have noted that predictions of large-scale systems failure have not occurred and they conclude the predictions are false. Paul and Anne Ehrlich point out in their *Betrayal of Science and Reason*, that data and factors change, life is dynamic, and science continually restructures what is known to fit current data. Science is not based on faith and belief and therefore, does not inflexibly hold to notions that are not supported by new data. However, it is unreasonable to say that this ability, actually, requirement, of science to adjust to new data does not mean that there is no basis for prediction, that there is nothing certain or known. The fact that science admittedly does not know everything gives no weight to the claim that it knows nothing. While scientists

may be discussing the rate of global warming, no significant portion of the scientific community claims there is no global warming.

For the purposes of this article, it is a fundamental assumption that Earth is in crisis and that the Sixth Extinction is real. It is a given that humanity's fate is inextricably linked to the fate of its home planet. The article assumes that there is still time to turn the situation around. It comments on the role of one segment of higher education, the community college, considers its function in relation to sustainability, and critically views the largest community college's efforts. It further explores how the community college relates to other institutions of higher education and how its role situates it to exacerbate or ameliorate Earth's predicament. The article looks at the influences that have shaped the current efforts at Miami Dade College whose size, location, and role in the community college movement make it an important case. It also considers the paradigmatic shifts and underlying principles needed to make changes for a sustainable future, and views Earth Literacy and Earth Ethics as underpinnings of the efforts at the College. Finally, the article concludes by looking at alternative future directions that are viable within the Community College context.

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Bibliography

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Boff, Leonardo. (2005). *Cry of the Earth, Cry of the Poor.* Maryknoll, New York: Orbis Books. [Boff makes a compelling connection between social justice and ecology. He recognizes that Earth cannot heal without healing the human social fabric. Most shocking is that indigenous peoples have been murdered in order to get to the natural resources in their habitats.]

Bowers, C.A. (2001). *Educating for Eco-Justice and Community.* Athens, Georgia: University of Georgia Press. [Bowers discusses eco-justice and offers a curriculum based on these ideas. The author coins and explains the term commodification. The book contains the Principles of Environmental Justice: Preamble, from the First Nation of People of Color Environmental Leadership Conference (1991), which is a powerful statement of principled action.]

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Cohen, Arthur, and Brawer, Florence. (1982). *The American Community College.* San Francisco, California: Jossey-Bass Inc. [This is a standard, though dated, text on the North American community college. The historical changes, growth, shifts in missions, changes in policies, and impact on education are well discussed in this classic work.]

Dewey, John. (1997). *Experience and Education.* New York: Simon and Schuster Inc. [Dewey is essential reading in education. He was one of the first American educational philosophers to advocate experiential learning. While others in this theme have criticized him for too much reliance on science and scientific method, he is foundational to the beginnings of critical learning and cross disciplinary education.]

Erhlich, Paul R. and Erhlich, Anne H. (1996). *Betrayal of Science and Reason: How Anti-Environmental Rhetoric Threatens Our Future*. Washington, D.C.: Island Press. [This is a review and refutation of anti-environmentalists by two well recognized scientists. They present convincing evidence that attacks on rational thinking are not arbitrary and note the self-perpetuating aspects of fostering scientific ignorance.]

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Leopold, Aldo. (1949). *A Sand County Almanac*. New York: Oxford University Press. [Leopold is considered foundational to the North American discussion of Earth Ethics. His land ethic says that a thing is right when it tends to preserve the integrity, stability and beauty of the biotic community and wrong when it does otherwise. Leopold also extends the notion of community to include the non-human elements.]

Orr, David. (1992). *Ecological Literacy: Education and the Transition to a Postmodern World*. Albany, New York: SUNY Press. [Orr cogently discusses sustainability, education, and knowledge. He proposes a pedagogy of place and makes a forceful case for the damage that unchanged education can create. The author believes and states that all education is fundamentally environmental education.]

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Swimme, Brian and Berry, Thomas (1994). *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era- a Celebration of the Unfolding of the Cosmos*. New York: Harper Collins. [Swimme, a physicist, and Berry, a historian and theologian, combine the new cosmology and sacredness. They see the universe as an ever-evolving, interconnected community. Their work is an underpinning for Earth Literacy.]

Toolan, David. (2001). *At Home in the Cosmos.* Maryknoll, New York: Orbis Press. [Where Fritjof Capra brings eastern theology and quantum physics together, Toolan attempts to unite western Judeo-Christian theology and current science. He tries to move beyond the philosophical attitude of de Chardin and make more practical connections. This is clearly a deep Christian perspective that sees literacy detaching man from nature and human ethics not keeping pace with new scientific discoveries and knowledge.]

Union of Concerned Scientists (2005). "Restoring Scientific Integrity." www.ucsusa.org [This is one of many position papers found on the UCS website. The World Scientists' Warning to Humanity and other important resources are published at this website. It is an important watch-keeper organization.]

United Nations Environmental Programme. www.unep.org [This is the official website for UNEP and as such is an immense and current resource for educators at all levels. This and UN Decade of Education for Sustainability are essential sources for anyone connecting to this EOLSS theme].

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Wilson, Edward O. (1984). *Biophilia*. Cambridge, Massachusetts: Harvard University Press. [This book details Wilson's much quoted notion that humans have an innate love of nature. Articles from this book punctuate the readings in the Green Studies courses at Miami Dade College. Wilson to some appears too anthropocentric and is vulnerable to such criticism as here he suggests that because we have not discovered all of the potential (to humans) of the natural world we should be cautious of its early disappearance.]

Biographical Sketch

Bradford Stocker, has been an educator for almost forty years. His experience ranges from pre-school to graduate school and all levels in between, crosses many disciplines, and includes many alternative learning programs and methods. He has been a Fulbright Scholar and has had professional experience in a number of cultures. His research has included challenging the use of technology in education, humor in teaching, and most recently the incorporation of Earth Ethics and Earth Literacy into the college curriculum and institutional culture of Miami Dade College. He leads many faculty development experiences in these areas and presents and writes on the subjects. He is currently pursuing a post-doctoral certificate in Ecology and Human Spirit.