QUAKER ECO-BULLETIN

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How on Earth Do We Live Now? Natural Capital and Deep Ecology: A Circle of Discernment*

Sandra Lewis and Keith Helmuth

Indeed, how on Earth will we live now—now that we are exceeding the capacity of Earth to support our way of life, now that our economy is filling up Earth, now that our excesses are depleting and destroying natural resources and Earth processes that support life on the planet. David Ciscel's article, "It's the Economy, Friend," (*QEB* 7:4, July-August, 2007), introduced the consideration of air, water, minerals, plants, animals, and services provided by eco-systems as "natural capital." In his latest article, "Steps on the Ladder to an Earth Restored" (*QEB* 9:2, March-April, 2009), Ciscel suggests that bringing natural capital under the management of the mainstream economic system will result in full-cost accounting of the human impact on the environment and is essential to reversing our current destructive trends.

Considering both of these *QEBs,* the editorial team raised a basic issue. Is Earth a subset of the human economy or is the human economy a subset of the biosphere? The predominant, technological, human-centered approach assumes that Earth is a subset of the global economy that functions primarily to benefit humans. The approach of deep ecology, developed by Arne Naess, Joanna Macy and others, assumes that humans are one species among many in the larger community of life on Earth, and that we cannot thrive economically, or otherwise, unless the whole web of life thrives. Realizing that we wanted to explore these two world views in some depth, we established a Circle of Discernment (CoD).

Friends have a long history of innovative, technological development from iron mills to accounting systems. We tend to take a practical approach, which puts us into the human-centered technology corner. But many Friends have been led toward the deep ecology approach, because we understand the destruction inherent in our current path. We do not expect our Circle of Discernment to produce a tidy resolution to these great issues but aim to provide guidance to Friends as we seek to bring the human-Earth relationship into a sustainable balance.

In this *QEB* we include two responses from CoD members, Sandra Lewis and Keith Helmuth, to David Ciscel's "Steps on the Ladder" article. These essays include ideas we've been exchanging within our CoD and are intended to advance our understanding of the tensions and connections between the two world views we're exploring. Our readers are invited to submit their own responses to this exploration. Please send written comments to <KeithHelmuth@gmail.com>.

The Foundation and Framework that Shapes the Whole Human/Earth Relationship

Sandra Lewis

The new California Academy of Sciences in San Francisco's Golden Gate Park, celebrates life on Earth in all its complexity, beauty and grandeur. On my first visit I was struck by the wording of the Academy's mission, "to explore, explain and protect the natural world." This venerable, science-based institution has chosen to go beyond "exploring" and "explaining" the natural world, the traditional realms of science, and take a strong public advocacy position, *i.e.*, to protect life on Earth. The new building itself conveys a vivid message about the importance of bringing the human enterprise into a sustainable relationship with the natural world.

Designed by Pritzker-award-winning architect Renzo Piano, the Academy was recently awarded the Leadership in Energy and Environmental Design (LEED) Platinum rating by the U.S. Green Building Council and may be the "greenest" museum of its size in the world. Composed of recycled steel and sustainably harvested wood, concrete, and glass, the new Academy uses 50% less energy than a building of comparable size and features solar lighting, natural ventilation, and high-efficiency irrigation technology. A "living roof" of California native plants with 57,000 square feet of photovoltaic panels around its perimeter is accessible to the public.

All of the Academy's exhibits and programs are designed to raise public awareness about issues of sustainability, as stated in their website:

> *The Academy's green building signifies its commitment to sustainability. The culture and internal practices mirror that commitment in the areas of energy, water, waste management, transportation, purchasing and food. Academy programs highlight the living world and its connection to the changing global environment. Academy research focuses on the origins and maintenance of life's diversity, and its expeditions roam the world, gathering scientific data to answer the questions, "How has life evolved, and how can it be sustained?" <calacademy.org/science/sustainability_statement.php>*

What if the entire scientific enterprise of our country and our world functioned within the framework of a commitment to explore, explain and protect the natural world? What if economics, politics, business, religion, medicine, agriculture, education,

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The vision of **Quaker Earthcare Witness (QEW)** includes integrating into the beliefs and practices of the Society of Friends the Truths that God's Creation is to be held in reverence in its own right, and that human aspirations for peace and justice depend upon restoring the Earth's ecological integrity. As a member organization of Friends Committee on National Legislation, QEW seeks to strengthen Friends' support for FCNL's witness in Washington DC for peace, justice, and an Earth restored.

QEB's purpose is to advance Friends' witness on public and institutional policies that affect the Earth's capacity to support life. QEB articles aim to inform Friends about public and corporate policies that have an impact on society's relationship to Earth, and to provide analysis and critique of societal trends and institutions that threaten the health of the planet.

Friends are invited to contact us about writing an article for ***QEB.*** Submissions are subject to editing and should:

- Explain why the issue is a Friends' concern.
- Provide accurate, documented background information that reflects the complexity of the issue and is respectful toward other points of view.
- Relate the issue to legislation or corporate policy.
- List what Friends can do.
- Provide references and sources for additional information.

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etc., functioned as if protecting life on Earth was an integral part of their mandate? I thought about these questions as I began to write my response to the economic perspective David Ciscel explored in the previous *QEB*, "Steps on the Ladder to an Earth Restored." Economics is not a science in the same sense as physics and biology are sciences, but one could say that the purpose of economic science is to explore and explain the dynamics of human economic activity. I suspect that few economists would suggest that part of their professional mandate is to protect the health of the natural world.

Instead economic theorists and practitioners have advocated an agenda of maximizing economic growth and efficiency at all levels of the human economic enterprise, no matter what the costs to the natural world. We are now caught up in the whirlwind of environmental destruction that this world view has helped create. What if the same amount of human intelligence and creativity that has been directed toward maximizing economic growth and efficiency was applied to creating human economic systems that enhance and protect the health of the natural world?

The natural world is the ultimate source of the human economic enterprise. Without water, sun, air, soil, plants, animals, and the Earth cycles and processes that keep them going, there would be no life, no economy, no goods. It seems obvious to me that the field of economics should recognize this fact and include protecting the health and vitality of this natural wealth as fundamental to its theories and practice. David Ciscel goes toward this idea in his *QEB* piece, but some of his language betrays a traditional economic world view. For example, he uses water to illustrate the concept of natural capital and concludes: "So the end result of seeking an Earth restored is most likely an Earth *managed* [emphasis added] to minimize the impact of economic activity on activities dependent on water—now renamed water capital." To me the phrase "managing Earth" implies a world view that sees humans as dominant and separate from nature. It is an expression of human hubris.

In my view, humans will never "manage" Earth, because ultimately the forces of nature are much more powerful than we are. We can cause great havoc on Earth systems, as we are now with the climate system, but we can't "manage" the climate system. Human impact on the climate system or the water system or any other system has consequences, unforeseen and otherwise, which we cannot escape. Nature bats last. We can, however, manage ourselves as individuals and we can work to manage the collective actions of our species to minimize our impact on Earth's life support systems. Some of the theories and tools of economics can help us in this project.

This is a tall order given the size of the human population, the inadequacies of current economic models for tracking and valuing human economic activities and natural resources, and a mindset that has, for too long, viewed Earth primarily as a warehouse of commodities for humans to use for their exclusive benefit. David Ciscel's uses of the term "green factory" as the source of our water and of water as a commodity are examples of this mindset. He says in his *QEB* piece that water is becoming scarce because, "….the economy…has a huge appetite for water…" and that water is "…no longer simply a part of the natural ecosystem,"… [but a]…"a semi-renewable form of natural capital, one which cannot be used sustainably unless it is made to follow the rules of *real* capital [emphasis added]…Suddenly part of the world that has traditionally been managed by physical and biological systems is falling more and more under the management of the economic system."

As the ecological economist Herman Daly has pointed out, the economy is a subsystem of Earth's system, not the other way around:

> *The most important change in recent times has been the enormous growth of one subsystem of the Earth, namely the economy, relative to the total system, the ecosphere…. The closer the economy approaches the scale of the whole Earth the more it will have to conform to the physical behavior mode of the Earth. That behavior mode is a steady*

state—a system that permits qualitative development but not aggregate quantitative growth. <theoildrum.com/node/3941>

We distance ourselves from the problem when we say it's "the economy" that has a huge appetite for water. It is we humans who have a profligate thirst for water and the wealth that water can bring. It is we humans who have forgotten that water is an essential source of life on Earth to be cherished and shared with all other life forms. If we want future generations of any species to survive and thrive on this planet, we have no choice but to stop desecrating and wasting water and begin protecting this sacred source of life.

The physical, chemical and biological systems that govern Earth are basic because they provide the natural "capital" that underlies all other wealth. Economists, politicians, business owners, and the rest of us need to have a deep understanding of how these systems function and learn how to conduct our economic activities in ways that don't undermine or disrupt these processes. This sounds very different to my ears than David Ciscel's idea of bringing these natural systems, "more and more under the management of the economic system," or making them, "follow the rules of real capital." Our current economic crisis has shown us the fallacies and unreality of the rules governing so-called real capital—trillions of dollars of which have evaporated into the ether in a matter of months.

Our ancestors, ourselves, and our children have all been given the most amazing gift of life, because our home planet embodies the conditions that bring forth and support life. So far as we know now, it is the only planet fit for humans and other Earthly life. The planetarium show at the Academy, "Fragile Planet," takes us on a voyage that begins from the Academy's living roof, lifts up through the atmosphere to gain an astronaut's view of Earth, then travels to the Moon, Mars, and beyond to search for habitats that might host life, and returns to Earth without finding any. On return the voice-over narrative ends with a brief phrase that succinctly describes the human species and the responsibility that goes with the amazing gift we've been given: "Bright child of the planet, protector of Life."

We humans are bright and clever and capable of all kinds of brilliance in meeting our needs, in following our dreams and curiosity, and then reflecting on what we've done. At this point in time, the fact that we can explore and explain much about life on Earth is essential to protecting life. But will we remain children by refusing to accept the responsibility that goes along with our unique gifts? Will we abandon our single-minded pursuit of human well-being, regardless of the cost to the whole community of life? If we are to grow into maturity as a species, it seems to me that we must choose to bend the arc of our knowledge and brilliance—whether it be in science, economics, technology, business, or any other realm of the human enterprise—toward protecting life and ensuring that future generations of all species can enjoy the same gift of life we have been given. This choice cannot be an afterthought, but the foundation and the framework that shapes the whole human/Earth relationship.

A Bridge to the Future: Awakening to the Reality of the Commons

Keith Helmuth

In the showdown between the capital-driven economy and the integrity of earth's ecosystems, a new and hopeful metaphor has emerged—a bridge to the future.

We have been hearing a lot recently about the consumer economy "going over a cliff." Even Tom Friedman, a once unabashed booster of full tilt globalization, has now reneged on the viability of the endless growth economy (*New York Times*, March 8, 2009). Many folks would probably agree it is a good thing for this Ponzi scheme economy to "go over the cliff," except for the fact that it is taking a huge swath of earth's ecological and social integrity with it. The ecological and social damage it has already done is one thing, but the chaos, disruption, and violence that is likely to come with the continuing breakdown of the economy is, indeed, staggering to contemplate, and now behold.

The logic of the case is that if we want to save a reasonable fraction of the benefits of civilization, we have to save the economy as well. That doesn't mean saving the economy in its present form. It means building a bridge to the future in which the economy supports biodiversity, ecosystem resilience, environmental justice, and the security and well being of human communities —a whole earth economy that works to the benefit of the whole commonwealth of life.

Foremost among those who are calling for and showing how the bridge to the future must be built is James Gustave Speth, Dean of the Yale School of Forestry and Environmental Studies. His most recent book, *The Bridge at the Edge of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability*, holds the capitalist economy responsible for worldwide ecological degradation and the "over the cliff" trajectory on which it is taking human adaptation. What is especially remarkable is not that this analysis is new, but that Speth, a man of mainstream American environmental policy and politics, is now making this case and offering his insight on how economic institutions and policy must change if a bridge to the future is to be built over the ecological and social catastrophe to which the failure of capitalism has brought human adaptation. He is now calling for the kind of social movement and street demonstrations on climate change that previously galvanized political action on civil rights.

Building a bridge to a whole earth economy will require a variety of approaches to understanding the human situation, and the integration of these approaches into effective action. As we contemplate the fate of the human-earth relationship and build a bridge to the future, two of these approaches are in notable tension, the "natural capital" approach and the "deep ecology" approach. They might also be thought of colloquially as the "engineering/management approach" and the "let it be approach."

These worldviews are both aiming at ecologically sound human adaptation, but what this means and how we get there are in significant tension. These two approaches flourish among Friends, as well as in the larger circles of concern over the human-earth relationship. If we want to combine our best efforts in effective action toward an "earth restored," we need to dialogue this tension into creative witness and action. The bridge to the future needs structural discernment.

When I ponder this dialogue, I realize that not only does this tension emerge between persons in their differing approaches to understanding and action, but it can also emerge within persons as they work to understand what is going on in the world and how to deal with it. I can certainly testify that this tension is alive within me. Having been a student of economics and a business person for most of my life, I can easily argue in the morning that protecting earth's ecosystems can best be achieved by the proper valuation of "natural capital" and full-cost accounting. But in the evening, as I gaze at the globe on my library's fireplace mantle and feel the earth and its encompassing life rolling along through eons of cosmic experience, the confidence of my morning argument is swept into doubt. When I still had a farm to run, the morning would again, of necessity, bring my management confidence back into play.

These divergent casts of mind are present most of the time, and I try to make good use of them. The more I think about this dichotomy, the more the reality of the commons comes into focus as a fundamental element of the bridge to the future, and as the context for holding natural capital and deep ecology in creative tension.

The reality of the commons is revealed to us in two domains: the cultural arrangements of knowledge and skills that support human communities, and the underlying and overarching forms and processes of earth's life support systems. The reality of these domains as the commons of our existence comes into view with a double-barreled sense of solidarity—human solidarity and solidarity with earth as a commonwealth of life.

Awakening to the reality of the commons in both domains may offer a key to fruitful dialogue between the world of natural capital and the world of deep ecology. A comprehensive sense of the commons kindles an encompassing sense of solidarity. The well being of human communities within the world of natural capital, and the well being of the commonwealth of life within the world of deep ecology may, in this context, find a way to join hands and work together for an "earth restored," even if their world views remain in tension.

If we awaken to the totality of the commons as a field of action on the bridge to the future, the differences between the natural capital approach and the deep ecology approach should not hinder collaboration. Solidarity will be our common guide, and if our views of right relationship don't quite mesh, at least they should not clash in conflict. Meanwhile, we have another reality that confronts us with regard to the commons. The ethic of competition, domination, and wealth accumulation is still seen by many elements of our society as an acceptable way to organize economic and social relationships. An attitude of grasping instead of sharing dominates many of the large corporate structures of economic and political life.

The commons are now increasingly vulnerable to expropriation by powerful corporate interests, as they roam the world seeking opportunities to advance their mission of wealth accumulation. This mission recognizes no limit on what it has the self-assigned "right" to take over and exploit. For example, ninety percent of the arable land of Madagascar is now owned outright by a single corporation. Both the natural capital commons of Earth's life support systems and the cultural commons of knowledge and skills are seen as "resources" for exploitation and private wealth accumulation. The structural violence of great inequity that accompanies this exploitation, and the overt violence of emerging "resource wars" are increasingly prominent. The culture of these corporate elites is as interested in building a bridge to the future as we are. The difference is in the kind of bridge they wish to build and in the destination they aim to reach.

The human prospect now includes the question, "will access to the means of life be increasingly controlled by a small number of large corporate interests and their political allies, or will human communities, in all their variety, retain vital and resilient relationships to their local and regional environments?"

The way this great question is answered in the economic and political practice of communities around the world will determine, to a large extent, the fate of the commons in both domains and the quality of human life in the future. Perhaps we have now come to a "teachable moment" with respect to the commons and the ethic of stewardship. Perhaps the overreach of corporate interests and, the world wide movement of indigenous and community-based cultures asserting their right to exist, mark a turning point and a new opening in the struggle for the commons and the practice of right relationship.

Neither natural capital nor deep ecology leads necessarily to this political question. But solidarity does. Both human solidarity and solidarity with earth's commonwealth of life require that the spiritual and cultural struggle for access to the means of life be joined. Access to the commons for building a bridge to the future will join both natural capital and deep ecology in a task that transcends division.

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Would you like to contribute to this exploration? Where do you stand in the spectrum between natural capital and deep ecology? How do you resolve the dilemma? Please send comments to <KeithHelmuth@gmail.com>