This issue departs from a typical Quaker Eco-Bulletin, which alerts and informs Friends about a specific issue of ecological concern and provides guidance for taking action to address that concern. For Quakers, advocacy and action grow out of the deep soil of faith and values, which in turn rest on the bedrock of a world view, a way of understanding our situation that makes sense to us. This QEB is devoted to highlighting some of the seismic shifts in world view that are now occurring in the culture and sets forth some initial thoughts on how traditional Friends Testimonies and Witness can be re-imagined and related to an emerging ecological world view.

Underlying our current ecological crises is a pervasive cultural/religious assumption that humans have dominion over Earth—the right and even the responsibility to use whatever of Earth’s resources are required to meet our needs and desires without regard for the impact of our actions on other species and Earth itself. This world view is now being challenged by new scientific stories about the emergence of the Universe, the planet Earth, and its life forms, and the processes that have evolved to sustain life. In many ways these scientific stories reflect and support ancient Earth-centered wisdom about the human-Earth relationship now being reclaimed and incorporated into contemporary spiritual practice.

Creation Story from Science

From the precision and verifiability of modern scientific work has come an astounding story—an evolutionary story that is redefining our understanding of where we are and who we are. This story is revealing the laws of nature that describe the fundamental dynamics of cosmic and terrestrial processes. The Big Bang Theory explains the expanding Universe, the development of the solar system and the unfolding of life on Earth. The Big Bang is described as radiating from a very small, unimaginably dense fireball that contained the primordial particles and energy required for the development of the entire Universe. The Big Bang itself created the time and space in which we live in this expanding Universe. “Let there be light!”

Eventually the expansion and gradual cooling allowed the energy and particles to become organized into as many as 200 billion galaxies, including our own Milky Way. Initially matter consisted only of hydrogen nuclei, but then the fusion of hydrogen nuclei produced another element, helium. In time electrons became associated with these nuclei and atoms of these elements were formed. Stars were fueled by the energy released in the fusion of the primordial hydrogen that was formed in the first second after the Big Bang. After billions of years the fusion reaction in stars ran out of hydrogen and began to collapse. The helium that was created then fused to form larger atoms such as carbon and oxygen. In some stars, an iron core formed and all the elements were created. Star collapse was complete when it exploded creating a supernova that spewed all these elements into space. When this cloud cooled, new stars and accompanying planets were formed, accounting for all the elements found on Earth.

Science Meets the Mystery

Science tells the story of the Big Bang, the unfolding of the Universe and the unfolding of life on Earth in terms of physics and chemistry. Encounters between atoms of carbon, hydrogen, oxygen, phosphorus, nitrogen, and other elements combined to form more and more complex molecules. Eventually, self-replicating nucleic acids appeared, then simple one-celled entities. Thus began the process from which the great diversity of all life-forms developed. However the mystery remains. The science story tells us nothing about the origin of the Big Bang, what existed before this event, or what determines the physical properties and chemical processes of the Universe and Earth.

There’s another way to tell this story, a way that honors the mystery and wonder of Creation. Have you ever marveled that you exist at all, that you are lucky enough to incarnate in this amazing, beautiful, elegant and infinitely complex place called “Earth” and that all you need to sustain life is here? Have you ever bowed in awe and reverence and gratitude for the fact that some 13 billion years ago there was only hydrogen and helium floating around in space and that everything that exists on Earth, including you, has emerged out of eons of transformations of these elements?

The probability of all the chance encounters required for the evolution of life on Earth has been calculated, and it is outside the range of possibility on a random basis. Even physical properties, such as the strength of gravitational forces, have to be exactly as they are—no more, no less—for the Universe to exist. These mys-

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1This issue of QEB is an attempt by the Editorial Team to gather a large subject into a small package. The ideas discussed here come from many different sources so individual citations will not be made, but a bibliography is included.
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 the 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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terries argue for a process of convergence, a process that, at first, seems random, but out of which emerge tendencies, patterns, direction and relationship. This element of intelligent, emergent design is not an alternative to the theory of evolution, but is rather the dynamic reality of the evolutionary process itself, and the context in which we understand the Universe as an unfolding event.

Another amazing story science tells is that each atom of matter is composed mostly of “empty” space. It is said that if an atom of hydrogen were the size of a baseball stadium, the nucleus composed of one proton would be the size of a ball on the ground and the electrons would be like small gnats flitting around the outside. The human body, which appears solid to us, is composed of these atoms of hydrogen, carbon, oxygen and other elements organized into molecules, all of which are mostly “empty” space.

What is the nature of all this “emptiness”? It is only empty with respect to scientifically measurable entities. When the energy density of the vacuum is calculated, it is far greater than the energy associated with all the matter particles in the Universe.

The imaginative skill that has produced the scientific creation story is also manifest in the lives and work of philosophical seekers, poets and mystics. The concept of a “creative emptiness” from which everything is derived has an analogue in the experience and expressions of poets and mystics throughout the ages. This sense of the numinous has been variously called “God” “Spirit” “Abyss” “Generative Realm” “Fecund Nothingness” “Plenum” “Divine Far Nearness” “Near Unknowable” “All Nourishing Abyss,” “Tao,” “Suniyata,” “Great Spirit,” “Oversoul.”

What is Creation? Creation is the whole unfolding, on-going cosmic event, radiating and differentiating living beings of Earth from the realm of formlessness into self-organizing forms. What appears to the scientific gaze as a profound “emptiness” within the architecture and process of Creation is to the eye of a wider consciousness the fullness of communion, a communion which gives all things birth, fosters their differentiated development, and brings a sense of the soul into focus. While we can only wonder how consciousness manifests in other life forms, it is clear that, irrespective of complexity, no creatures can be excluded from the continuum of Creation. We all have our being within the whole, and through the simple generosity of this kinship we catch sight of the Great Soul in all the forms and processes of Earth.

It is not difficult to see the quintessential Quaker insight—“that of God in everyone”—as an expression of this ancient and enduring intuition. Since Earth itself, and everything on it, is an expression of this essentially unnamable, yet pervasive, fecundity of the Universe, we can understand “that of God” as moving in all forms and creatures. The motion of Creation is in every animal, every plant, every rock, every form and process of Earth.

This sense of a spiritual commons has been characterized by Carl Jung as “the collective unconscious.” While we emerge into consciousness as differentiated selves, we are, at the same time, embedded in relationships that exercise and sustain our sense of belonging to a wider reality. Experiences of synchronicity between individuals, and within and between cultures, suggests a common underlying reality from which consciousness arises. Similar metaphysical experiences and explanatory concepts have arisen in different geographic regions within the same historic periods even though there was no contact between the cultures involved. Such manifestations of consciousness build toward the ecological world view.

Cultural Evolution

For a very long time the so-called, non-historic indigenous peoples of the world have been telling metaphysical stories about the powers and process of Earth, and about the human-Earth relationship, based on the experience, understanding and practice of reciprocity. This world view, once condemned by monotheism as superstition, can now
be understood in scientific terms as a reasonable representation of the reality of Earth process.

Dissatisfaction with the results of the domination ethos has lead to numerous movements of rebellion and the subsequent establishment of alternatives. From the Reformation in the sixteenth century to the rebellions of the 1960s, the search for a more vital and egalitarian spirituality has been a powerful evolutionary tradition in its own right. For early Friends the whole structure and process of institutional Christianity became unbelievable. The institutional story of Christianity gave way and was replaced in their understanding with the immediate presence of Christ as an inward teacher, and the process of learning as a new spiritual path.

In the 1960s the sense of an evolutionary leap in culture gave rise to the New Age Movement. Various seekers and spiritual communities developed alternative ways of viewing the world, often following Eastern meditative practices and Native American traditions. The first celebration of Earth Day in 1970 indicated that an important aspect of the changing world view was a concern for our culture's estrangement from Earth.

The women's movement explored ancient Goddess-centered traditions to reclaim the feminine dimensions of the divine and made us conscious of our use of language which expressed male domination. One mechanism that allowed the Judeo-Christian culture to dominate was the development of dualistic thinking that divided beings into two components, the good higher level of God-Spirit-Mind-Male, and the evil lower level of Satan-Earth-Body-Female. Enforcement of this dualism was brutal at times when women were accused of being witches—of being evil—and burned at the stake. These images are so seared into our collective memory that environmentalists are often automatically seen as pagan tree-huggers by those trying to hold onto the patriarchal world view. Feminist theology counters this by raising images of Mother Earth with the Divine Breast into the higher level of our consciousness.

**Earth-Centered Consciousness**

When the world changes, world views change. At the turning of the new millennium we find ourselves in the midst of a cultural transformation with expression of a new consciousness, one that is in transition from the now dominant, hierarchical, dualistic, human-centered world view to an ecological, holistic, Earth-centered world view. It is variously called the “Great Transition,” “Great Turning,” or “Axial Transformation.” Ideas from Eastern, Native American, and Christian mystical traditions are coalescing with quantum physics, cosmology, astronomy, depth psychology, and ecological sciences to form new ways of thinking and being.

What is it that has formed the deep contours of human consciousness? Surely it is our primal experience of Earth and all its particular forms and processes; the sheltering forests and the wide open plains, the deep valleys and the high mountains, the flow of rivers and the beauty of lakes, the bounty of plants and the intelligence of animals. It has been our experience with fire and storms, with the great sun-filled days and the deep-spangled beauty of dark nights, and the moon—that ever-changing body of soft light, companion of longings and dreams. All this, along with the heights and depths of social relations, underlies the history of human consciousness and the growth of that interior sense we call the “soul.”

From the beginning, all these aspects and processes of Earth have been the formative context of neurological, cognitive, and emotional growth of the human. Our perceptual and cognitive skills, and our emotional repertoire have been shaped and conditioned—literally created—by this very particular kind of world—a world that, for all its hazards and unaccountable eccentricities, yet displays a consistent pattern of renewal that we recognize as integrity, and a coherent pattern of relationship that we recognize as reciprocal. And out of this history of development we have come into a sense of the order of the soul that parallels the integrity and reciprocity of Earth's whole community of life. This is not surprising. We are part of this community. The human soul has a home.

**Economics and the New Consciousness**

This home is far greater, more complex, more intelligent and mysterious than anything *Homo sapiens* has created in the blink of time in which we have emerged as the dominant species on Earth. In much of the world today, the human-centered world view, based on the hubris of dominance and control of nature, has given rise to social and economic arrangements that are now disrupting and severely damaging the commonwealth of life and the biotic integrity of Earth. Our human-centered world view has blinded us to the reality that all of our social, cultural, political and economic systems are embedded in and dependent on the healthy functioning of Earth's life support systems. Nowhere is this blindness more evident than in our existing economic arrangements.

The capital-driven economic system that holds sway over much of humanity is based on the principle of perpetual growth—a condition found nowhere in nature. It has no built-in limits and functions with little concern for its impact on Earth's creatures and ecosystems. The world view of unlimited economic growth has intensified the story of human dominance—a narrative of technological domination, maximum resource development, and unfettered capital accumulation. This story is promoted, and largely accepted, in modern societies as the only reasonable scenario for the human-Earth relationship. It has overrun and sidetracked both religious and scientific stories about how humans might live more benignly and more in harmony with the rest of Creation. In nearly every domain, capital accumulation wins out in conflicts with compassion and justice, and with ecological information and proper scientific caution. Capital-driven economics has become an almost universally accepted public faith, complete with its own theology.

This situation is not caused solely by greed or ignorance; it is due to a belief system in which economic growth is expected to produce the best of all possible worlds and solve all problems along the way to this utopian goal. Fortunately, this belief systems is becoming increasingly unbelievable as its “dystopian” impact on social and biotic environments becomes ever more evident.
Implications for Friends Testimonies

What many Aboriginal Peoples knew, and still know, and what the emerging ecological world view tells us, is that there can be no lasting “better life” for humans that is built on utter disregard for the rest of Creation. Ecological integrity encompasses the welfare of the whole biotic environment, not just the welfare of one species. The ecological world view deflates our human-centered preoccupations and enlarges our understanding of and concern for the whole community of life. To move out of our human-centered trance, we must receive the deep wisdom of those who have lived in a reciprocal relationship with the ecological integrity of their home environments. We must know “in our bones” what is required of us to live in such a relationship. We must re-imagine our most treasured spiritual teachings within an ecological world view and build the practical working details of life into a new “ecological identity.”

For Friends some of our most treasured spiritual teachings are the testimonies which have codified the spiritual learning that blossomed with such authenticity among Quakers in the 17th Century. These testimonies have continued to shape the values, behavior, and activities of Friends to the present day. Over the years Friends have been led to re-imagine how these testimonies can be understood and applied in the light of new knowledge and historical and societal change. Friends testimonies, and the activities that have flowed from them, have been a central factor in the movement for human betterment that has grown over time into a full recognition of the spiritual significance of human solidarity. The emerging ecological world view suggests that Friends are now called to build on this value of human solidarity and imagine a world in which our solidarity extends beyond humans to the whole community of life on Earth.

We are now seeing more and more clearly that there are no single focus issues, and that justice, equity, peace, and the integrity of Creation form a coherent framework of spiritual development, religious responsibility, economic behavior, public policy, and human betterment. Friends testimonies are like a small grove of old trees with their roots firmly planted in the nourishing soil of human solidarity, and their branches reaching out with the seeds of social sanity into many pathways of human betterment. Friends carry these seeds into the world and plant them in all manner of circumstances according to their calling and life work. The ecological world view calls on Friends to envision this grove of old trees as part of a larger ecosystem, as embedded in a reciprocal relationship with the larger community of life. Our grove can flourish in the long run only as we extend our concern and caring to that larger community.

Re-visioning Friends’ testimonies from an ecological perspective was anticipated in the writings of some early Friends, such as William Penn and John Woolman, and has been underway in our time for more than twenty years among individuals and groups within Quakerism. In the interest of stimulating additional spirit-led inquiry, discernment, discussion and action among Friends, we offer the outline below—developed by Keith Helmuth—which lists key words and explanatory phrases traditionally associated with Friends testimonies, followed by a second listing in italics that characterizes the testimony in the expanded context of the ecological world view. To the usual five testimonies—simplicity, peace, equality, integrity, and community—a sixth has been added, service. Service is generally understood as implicit in the testimonies, but, in this context, it is useful to give it distinct articulation. We hope you can use this outline as a point of departure for considering how we in the Friends’ community can re-imagine our traditional testimonies or develop additional testimonies to give us guidance for spirit-led action on behalf of all life on Earth.

Simplicity—Functional approach to the arrangements of life and work; non-acquisitive; frugal; unadorned; spiritually centered; attentive to direct experiences and relationships.

Subsidiarity—Direct decision making at the most immediate level of participation on matters of local and regional concern; anchoring life and livelihood in local and regional communities; production, use, and recycling of goods and services within local and regional economies.

Peace—Nonviolent living; conflict prevention; conflict resolution; relationship building; reduction and elimination of the causes of conflict, violence and war.

Human-Earth Relationship—Ways of life and means of livelihood that do not violate ecosystem resilience and integrity, or depend on violent and exploitative control of resources; mutually enhancing human-Earth relationship within a context of right sharing of resources.

Equality—Recognition and practice of dignity and respect; human solidarity; equitable access to the means of life and life development resources.

Ecological Footprint—Shared life space and life development resources; habitat preservation; biodiversity preservation; cultural preservation.

Integrity—Truthfulness; ethical consistency; devotion to right relationship; valuing direct experience and accurate information.

Ecological Adaptation—Ways of life and means of livelihood that are congruent with the resilience and functional integrity of the biotic environment; active enhancement of ecosystem resilience and integrity.

Community—Mutual support relationships; cooperative reciprocity; sharing of spiritual and physical commons; ceremonial representation of social life.

Social Ecology—Mutually enhancing human-Earth relationship; fully responsive to environmental processes; mindful participation in the dynamics of interdependence and ecosystem reciprocity.

Service—Life and work orientation around contribution to human betterment; e.g., human service work, education, provision of useful goods and services, public policy and civic engagement, social justice, economic security.

Stewardship—Life and work orientation around contribution to mutually enhancing human-Earth relationship; e.g., ecosystem restoration; energy use conservation; transition from nonrenewable to renewable energy and materials; local production for local use; green building; environmental education; ecological footprint reduction; overall ecologically sound economic adaptation.
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