

Elaboration of the Initial Ideas for the Founding of the Center for Ecozoic Studies

by Herman F. Greene

The reason for the Center for Ecozoic Studies and its purposes and activities are based on certain key understandings or concepts and their implications for the human community. These key concepts, to be further elaborated in the work of the Center, are presented below.¹ They are discussed under the major headings of “Key Ideas,” “Sources of Thought,” “Relation of the Center to Other Groups,” and “Closing Thoughts on Forgiveness and Grace.”

I. Key Ideas

“Ecology” and the Related Concept of “Community” Are the Fundamental Contextual Concepts of the New Millennium; They Serve Similar Roles as “Progress” and “Freedom” in the Modern Period.

Ecology, the study of the interrelations of organisms and their environment, presents the fundamental context in the new millennium for the reformulation of human community, the achievement of social justice, the revitalization of human culture, and the healing of the biological and geological systems on which all life depends. The overarching lesson of ecology is that we live in an evolving community of interdependent relationships. There can be no health for the individual unless there is health for the community of beings on which the individual depends. The lessons of modernity, which emphasized the primacy of the well-being of the individual (including the importance of diversity and the self-organizing capacities of the individual) should not be forgotten, but a new emphasis on the well-being

¹ *Editor’s note:* This paper was first written in the summer of 1999, at the time the Center for Ecozoic Studies was first being conceived. The paper was originally called “Foundational Ideas” and has been renamed “Initial Ideas.” The second title is more apt because the paper doesn’t contain a comprehensive set of ideas to be developed by the Center. It is meant as a springboard to further reflection, a presentation of the initial ideas that gave rise to the Center.

of the community, which extends to all humans and to other-than-human nature, will be the guiding motif in the coming age.

The Challenge of Ecology; Need for Total Cultural Critique and Reconstruction

The challenge of ecology calls for the most fundamental changes in human community since the birth of civilization when our ancestors formed agricultural-based neolithic villages 10,000 years ago. Throughout human history, the Earth has been viewed as an almost limitless resource available for exploitation for the betterment of humans with little or no cost to its degradation or depletion. Yet, in the pre-modern period, humans viewed nature with a sense of reverence and humility as they recognized their dependence upon the life-giving capacities of Earth, their involvement with a larger community of beings, and their own limited capabilities in the face of the immense powers and tenacity of other-than-human nature. In the modern period, beginning in the fifteenth century, there has been a major shift in the way humans have viewed the Earth and the task of the human community. With the ascendance of science, nature became an objectified “other” to be manipulated and controlled, and the quest for wealth and power over the conditions of existence became the overriding concern of the human community. A materialistic culture has emerged which views nature as imposing only factual limits that can progressively be pushed back by advances in technology. Traditional humanistic and religious values have been subverted in favor of concern for economic well-being and military power. Ecology calls for a reexamination of the organizing and governing values and ways of thought in our way of life - a total cultural critique and reconstruction.

The Ecological Issue and the Ecozoic and Technozoic Alternatives

The ecological issue is presented because of the gravity of its implications for the health and survival of countless plant and animal species of Earth, including human beings. Human intrusion into Earth’s natural processes has become so great that we are now bringing to an end the way the geological and biological systems of Earth have functioned to create and sustain life in the Cenozoic Era of Earth’s history. The Cenozoic Era began 65,000,000 years ago following the mass extinctions of dinosaurs and other animals that brought the preceding era, the Mesozoic Era, to an end. We are now in a transition as great as that leading to the Cenozoic Era, and, like that transition, the present one is also heralded by mass extinctions of plant and

animal species, the greatest since the end of the Mesozoic Era. Biologists estimate that more than 10,000 species a year are becoming extinct (contrasting with a natural rate of less than one per year), and, given the continuation of present trends, within the next seventy-five years a third or more of the species on Earth will vanish.² (This is greater in scale than the extinctions at the close of the Mesozoic Era where it is estimated that a quarter of the species disappeared, and the time period of little more than a century is much shorter than the several thousand years of the last great mass extinction.) Left unchecked, the current causes of these extinctions, in particular the build up of toxins in the ecosystem, may potentially have a longer lasting and more severe effect on the functioning of Earth's systems than the catastrophic natural events that ended the Mesozoic Era.

In the near term, because of global directions in technology, cultural values, economic and political systems, population, and other factors, the situation is likely to become worse. While Earth has been able to restore itself in the past from environmental disasters, such as asteroid collisions, ice ages and immense volcanic eruptions, Earth cannot re-balance the environmental destruction occasioned by the activities of humans, only humans can do that. This is why the author Thomas Berry refers to the coming era, an era in which human and non-human nature live in a mutually enhancing relationship, as the "Ecozoic Era," because only conscious ecological awareness and activities of humans can bring it about.

The alternative to the Ecozoic Era would seem to be a suicidal extension of our present activity, what Thomas Berry calls "technozoic" activity (mindless application of technology in pursuit of a wonderland), into the future until environmental disasters devastate the human community and thus halt its cancerous intrusion into the ecological system. This result is almost unthinkable. It would be the negation of all we aspire to individually and collectively. The Earth that survived such disasters would be a greatly impoverished Earth. It would be one with depleted natural resources, with polluted land and water, with the voices and songs of thousands upon thousands of species silenced forever, and with a severely degraded human community, if there should be one at all.

² See John Harte, *The Green Fuse*, p. 85 (University of California Press, 1993); see also Edmund O. Wilson, *The Diversity of Life*, p. 274-280 (W.W. Norton, 1992), who estimates that extinctions are occurring at the rate of 27,000 species a year, 3 each hour, and that the total loss of biodiversity will be in the 20-50% range.

The Great Work

Definition

The Great Work, or epic task, of our time is to move from the terminal Cenozoic to an emerging Ecozoic Era in the story of the planet Earth. (See statement on “The Great Work” by Thomas Berry on the inside of the front cover of this Reader.)

The Terminal Cenozoic

The phrase “terminal Cenozoic” is not an inviting expression, nor does it, at first, seem like an artful one. Yet, it is an important one and is uniquely descriptive of the conditions that call for the human community to be about the Great Work. It has to be understood in the context of the transitions that occurred at the end of other geo-biologic periods. The point to be made is most easily illustrated with the transition from the Archean Eon to the Proterozoic Eon that occurred around two billion years ago. In the Archean Eon, the first period of life on Earth where life was restricted to microbial beings like bacteria, the atmosphere did not contain oxygen and the living organisms could not survive in its presence. Yet the activity of the early microbial beings built up oxygen in the atmosphere and caused a crisis that was only resolved when organisms came into being with respiratory systems that used this oxygen in their metabolic processes. So what was destroying the Archean Eon, the build up of oxygen in the atmosphere, called for a new way of doing things, and when that new way came into being it began the Proterozoic Eon, an eon that surpassed in its creativity and diversity the former one.

We are at a similar stage as at the end of the Archean Eon, only this time it is human activity that is building up toxic substances in the atmosphere (as well as the biosphere, the hydrosphere and the geosphere). As a new kind of life had to be invented to bring into being the Proterozoic, so a new kind of life now has to come into being to bring about the Ecozoic. Those many years ago, to continue in the terminal Archean was to live in the devastating chaos caused by the free radicals released by oxygen. Oxygen slid through cell membranes and took apart enzymes, leaving cells helpless to perform their life-sustaining tasks. Today the devastating free radicals are those released by human technology and they are destroying the capacity for life on Earth to function as it has throughout the last 65,000,000 years in the

Cenozoic Era. There is no invention in nature, as it as evolved from the beginning of time to the present, to enable life systems to deal with human activity in its current and rapidly accelerating technological mode of functioning. To simply continue in the terminal Cenozoic will leave (as continuing in the terminal Archean would have left) the life systems on Earth unable to perform their life-sustaining tasks.

This claim, that we are in the terminal Cenozoic, is one with which many will not agree. Yet the scientific evidence for it is becoming increasingly convincing, especially if current trends are projected into the future. That we are in the terminal Cenozoic is an extremely radical claim. It is one so huge in its implications that we have no precedent for dealing with it in human history. We have faced crises before, great crises like wars and pestilence, but nothing so immense as the ending of a geo-biologic era in the functioning of the Earth, namely our own Cenozoic Era.

The way from the terminal Cenozoic to the next era in the history of the planet Earth depends again on some creative force in nature, and it would seem at this juncture this must be the creativity of humans. This thought is an awesome and humbling one. What we are required to do in the human future is as different from the past as pre-oxygen based metabolism was from post-oxygen based metabolism. If evolution was ever only a series of random accidents and natural selection, this next evolution will not be. It will come about as the result of intentional and conscious action of the human community in a dynamic and evolving relationship and inter-relatedness with other-than-human nature.

The Ecozoic Era

The Ecozoic Era is not something to be arrived at. It is a process concept and refers to an era of continuously evolving novel relationships of humans with other-than-human nature, as well as necessarily continuously evolving novel relationships of humans with other humans. Just as the health of the individual has been described by Janet Michello in “Spiritual and Emotional Determinants of Health,” in the *Journal of Religion*, as the ability to adapt to ever-changing biological and social environments in a creative, life-enhancing fashion, so the existence of the Ecozoic Era, a term which

contains the normative concept of health of the ecosystem, must be described as a dynamic reality that will be constantly re-fashioned in a creatively adaptive manner to ever-changing biological and human social environments.

The implications of the term Ecozoic Era are difficult to grasp and profound. Here are some of the implications:

(i) By using the term “Era,” we are drawn us into dimensions of time that embrace millions of years (like the Cenozoic Era which is of 65,000,000 years duration), when we are accustomed to think of historical epochs as periods like the Reagan era, or the New Deal, or longer periods such as the Enlightenment or the Medieval period. The concept of the Ecozoic Era requires us to embed the human story in the story of Earth. This is necessary because Earth’s processes require great periods of time, and if we are to survive as humans we must see ourselves within the larger periods of geologic and biologic time that provide the setting for our existence. For example, it takes 1,000 years to build two inches of topsoil, yet our actions can destroy the activity of thousands of years of beneficial development in a day. The vision of the Ecozoic Era is that we may come to understand ourselves and our setting in a way in which our activities augment the beneficial, time-dependant activities of Earth.

(ii) By using the term “Ecozoic,” we refer, in part, to humans as being a major determinant of Earth’s future. One way of thinking of this is that humans are evolution becoming conscious of itself. In the future, even more than now, humans will be involved in the genetic structure of life, the flow of rivers, the topography of land, the chemistry of oceans, the climate of the Earth, and in all other activities extending at least from the Earth’s crust outward. New capacities will provide new opportunities for tragic destruction, but also for health and abundance. The exercise of these capacities will place unprecedented demands on human society. We will not need less science, we will need more and better science. Thus, to move into the Ecozoic is not to abandon the technologies and knowledge gained in the technozoic period, but to use these technologies (and new technologies) and this knowledge (and new knowledge) in more creatively adaptive and cautionary ways. Similarly, we will not need less economics or government, we will need more and better economics and government. There is no way back to a more primitive mode of being except, perhaps, as the tragic result of a persistent application of our present mode of being.

That humans will have such involvement does not seem to be in question. Whether human involvement will be mutually enhancing to the larger community of life systems is. Thus, the term “Ecozoic” is descriptive in that it refers to a coming age of essential human involvement in nature, but it is also prescriptive and normative in that it refers to the promise that this age will be one of a mutually enhancing relationship of humans and nature. For the Ecozoic Era to come into being, an ethic will have to emerge that both limits and guides human activity. Care for the Earth and all its beings will have to become the shared responsibility of all; and humans will have to develop a reverential and cooperative, as opposed to an exploitative and coercive, relationship to the larger community of life.

(iii) By using the two terms “Ecozoic” and “Era” together as “Ecozoic Era,” we are called to consider an age as different from our current age as the Paleozoic Era (mollusks, fish, conifers, insects, reptiles) was from the Mesozoic Era (dinosaurs, flowers, birds, first mammals), and as the Cenozoic Era (efflorescence of mammals, grass spreads across the land) is from the Mesozoic Era. In terms of human history, we are called to consider a period that will be as different from our current period as the Paleolithic (hunter gather period) was from the Neolithic Period (agricultural villages), as the Neolithic Period was from the period of the classical civilizations, and as the modern period is from the period of the classical civilizations.

The human communities of the Ecozoic Era will look no more like those of today, than our present cities look like those that existed at the end of the Medieval period. For example, our present communities are based on an extractive economy, one based on exploitation of fossil resources deposited over millions of years and on maximizing production and profits and consumption of goods without regard for long-term effects. The economy of the Ecozoic Era will have the health of Earth’s economy as its primary concern. It will be based on the four principles of the Natural Step, which paraphrased are that substances from the Earth’s crust may only be extracted at a pace at which they can be redeposited and replaced; human substances may only be produced at a rate at which they can be broken down and integrated into the cycles of nature; the ecosystem may only be harvested in a way that the productive capacity and diversity of life on Earth is not systematically diminished; and there must be a just, fair and efficient use and distribution of resources and goods within the human community. Adherence to these principles will change everything. Their adoption as guiding

principles must come about if we and Earth's life systems are to survive in a healthy manner. The adoption of these principles cannot come about without a profound cultural transformation. And thus it can be said that cultural transformation is the hallmark of the Ecozoic Era.

Reinventing the Human

Humans are half biology and half symbol or culture. Thus, humans are not only a biological species they are a cultural invention. Put another way, when a human is born, he or she is only half human. There is no instinctual basis for the survival of humans. For a human to survive (for a human to become fully human) years of instruction and acculturation are required. The relationship of humans to nature in part results from biological necessity, but even more so from acculturation (for example, only a small portion of what we consume is done so to meet biological necessity). Thus as a species, we are what we are biologically and we are what we are culturally.

Given this understanding of the human species (that it is a biological species and a cultural invention), Thomas Berry has proposed that what is primarily at issue in the Great Work is "re-inventing the human." He puts it this way: "We might describe the challenge before us by the following sentence composed of seven phrases: The Great Work of our time is to reinvent the human, at the species level, with critical reflection, within the community of life systems, in a time-developmental context, by means of story and shared dream experience."³ The exposition of the meaning of this sentence will be an important emphasis of the Center for Ecozoic Studies, and enabling the sharing of stories and dream experiences concerning the Ecozoic Era will be one of its most important activities.

Ecozoic Community

Moving into Ecozoic Era will require the conscious participation of people in all walks of life. Communities will need to arise in every sector of society to support individuals who are growing in their understanding of the transition to the Ecozoic Era and who wish to participate more fully in realizing its promise, both as an emerging present reality and a direction for

³ Thomas Berry explains this sentence in the chapter on "Re-Inventing the Human," in *The Great Work* (Bell Tower, 2000). See also, Herman F. Greene, "Thomas Berry's Great Work," *The Ecozoic Reader*, Vol. 1, No. 1, pp. 24-26 (Fall, 2000).

the future. In some way each of these communities would honor the commitments of the individuals in the group, foster their growth, deepen their awareness of and appreciation of their connection with other-than-human nature, provide a way for them to report on their journeys and obtain help, and assist them in fashioning their intentions and projects.

Some of these communities are natural communities, such as educational and religious groups, and these communities broadly need to bring into their lives this awareness of the promise of the Ecozoic Era and of the calling to move in this direction. Yet, within these communities, and in all other sectors of society, whether law or architecture, building trades or medicine, government or economics, entertainment or agriculture, there needs to come into being intentional communities that have a purpose of nurturing the growth of their members toward the Ecozoic. Today these communities often go under the name of “green” groups, or “ecological” or “environmental” groups. These groups do provide this kind of support, but an understanding is needed that this is a concern not only for the “greens” or the “environmentalists,” this is a concern for everyone who is concerned about the human future and the health of the Earth community. Accordingly groups that would never entertain the idea of using green or environmental in their name, also need to give intentional attention to our common journey into the Ecozoic Era.

An important role of the Center will be to provide materials to individuals and groups to support their journeys toward the Ecozoic.

Twelve Understandings Concerning the Ecozoic Era

A broad framework is needed for understanding our way into the Ecozoic future. Twelve important understandings gleaned primarily from the work of Thomas Berry and Brian Swimme, but also that of Maynard Adams and Alfred North Whitehead, are set forth below and provide a part of that framework. Each of these understandings will be developed, discussed and expanded upon in the work of the Center.

The Nature of the Universe

1. *The Unity of the Universe.* The Universe as a whole is an interacting community of beings inseparably related in space and time. From its beginning the Universe has had a psychic-spiritual dimension. The Universe is a communion of subjects, not a collection of objects.
2. *Modes of Expression.* The Universe expresses itself at all levels of reality through differentiation (diversity), subjectivity (interiority, self-organization), and communion (intimacy, interrelatedness).
3. *Cosmogenesis.* The Universe is a creative, emergent, evolutionary reality that has developed from the time of the primordial flaring forth, and is still developing, through a sequence of irreversible transformations.

Earth and Its Current Dilemma

4. *Earth.* Earth is a one time endowment in the unfolding story of the Universe.
5. *The Current Dilemma.* The effects of human activity on the Earth have become so pervasive and invasive that the survival and health of the Earth community now rests on the decisions being made, and the actions being taken, by humans.
6. *Transition to the Ecozoic Era.* There is a need to move from the current technozoic period, where Earth is seen as resource for the benefit of humans, to an Ecozoic Era, where the well-being of the entire Earth community is the primary concern.

Three Key Building Blocks

7. *The New Story.* The New Story, the narrative of the evolutionary development of the Universe from the primordial flaring forth to the emergence of the Ecozoic Era, provides a unifying myth for all human cultures and a basis for common action in the realization of the Ecozoic Era.
8. *Bioregionalism.* Bioregionalism, care for Earth in its relatively self-sustaining geo-biological divisions, reorients human activity in developing sustainable modes of living, building inclusive human community, caring for the rights of other species, and preserving the health of the Earth on which all life depends.

9. *Ecological Spirituality*. Ecological spirituality, presence to the primal mystery and value of nature and to Earth as a single sacred community, provides a basis for revitalizing religious experience and healing the human psyche.

Special Contributors to the Ecozoic Era

10. *Women, Indigenous People, Humanistic and Religious Traditions*. The wisdom of women, indigenous people, and classical humanistic and religious traditions will have an important role to play in redefining concepts of value, meaning and fulfillment in human culture, and in setting norms of conduct for the Ecozoic Era.

11. *Science, Technology, Economics, Government and Civil Society*. Science must provide an integral understanding of the functioning of Earth and how human and nature's activity may be mutually enhancing, technology must become coherent with the ever-renewing cycles of nature, economics must provide sustainable sufficiency for the human community and protect the health of Earth's economy, government and civil society, as equal partners, must ensure participation, protection of human and other-than-human rights, and meaningful regulation at global, regional and local levels for justice, equity and peace.

The Great Work

12. *The Great Work*. The epic task, or "Great Work," of our time is to bring into being the Ecozoic Era. It is a task in which everyone is involved and from which no one is exempt, and it will require change in every aspect of human society. On it the fate of the Earth depends, and in it lies the hope of the future.

II. Sources of Thought

The Center will be open to all thought that gives insight into, builds on or develops the key ideas discussed in the first part of this paper. In this part of the paper, certain sources of thought will be recognized as having been important in the formulation the initial ideas of the Center and as having continuing importance, along with the many other sources to be added by others, to the work of the Center.

The Ecozoic Vision

Thomas Berry has provided the crystallizing vision for the work of the Center for Ecozoic Studies. The ideas of the Ecozoic Era and the Great Work discussed in the “Key Ideas” part of this paper, were first articulated by Thomas Berry. One of Thomas Berry’s most important contributions is his observation that the fundamental flaw of contemporary civilization is the lack of an integral relation between the human and the other-than-human natural world. This flaw is expressed in a science which objectifies and manipulates the natural world without understanding the vast implications of the new story of the Universe science itself has disclosed. This new story is one of a Universe in which everything is related, has a common story of development through a sequence of irreversible transformations, shows a kinship of all thing in their origins and in their bondedness to each other, and shows some kind of shared consciousness or psychic-spiritual dimension that gives rise to novelty and a questing, intentional aspect in the unfolding evolutionary journey. This flaw is also expressed in culture where the modern bias toward anthropocentrism, acquisitive materialism, and utilitarianism has separated us from our deeper selves, our human neighbors and our natural community with which we share a common destiny.

Thomas Berry has provided and is still providing a rich and enduring source of wisdom and understanding. He presents an essential critique of modern culture that must be understand if we are to find our way in a viable future for the human community. He has provided the fundamental narrative for understanding our place in human history, the work we have to do and the vision of where we are to go. Thomas’ work is not complete in itself however. His thought has to be developed and expanded upon by others. In this regard Brian Swimme, Mary Evelyn Tucker and John Grimm are of special importance. Many others, as well, deserve special mention for their continuation of and development of Thomas Berry’s work, including Miriam Therese MacGillis, Jim Conlon, Jane Blewett, K. Lauren de Boer, Dennis O’Hara, Heather Eaton, Ruth Rosenhek and John Seed. And there are many, many others who ably and effectively participate in this effort.

And not only does Thomas’ thought need to be developed and expanded upon, but many other sources, new and old, Western and non-Western are needed for developing the Ecozoic vision and leading us into the future.

Value and Meaning

Dr. E. Maynard Adams, Kenan Professor of Philosophy Emeritus at The University of North Carolina at Chapel Hill, has dedicated his life work to an enterprise that is different from, but complementary to, the work of Thomas Berry. Like Thomas Berry he has analyzed the philosophical underpinnings of modernity, but rather than, in the first instance, expressing concern, as Berry has, about the effects of modernity on the relationship of humans to other-than-human nature, Adams has focused on the effects of modernity on the humanity of humans. He argues persuasively in his most recent book *A Society Fit for Human Beings* that in the modern period

[v]alue and other humanistic categories were eliminated from the scientific/descriptive/ explanatory system. The world was disenchanted. No longer did we recognize any inherent ends or normative laws in nature. Reality was understood as imposing only factual limits on our will, limits that could be progressively pushed back by advances in science and technology. Human identity, values, morals, and religion have been problematic every since. As Ernest Gellner says, “Our identities, freedom, norms are no longer underwritten by our vision and comprehension of things Nietzsche referred to this intellectual development as “the death of God.” C.S. Lewis spoke of it as “the abolition of man.”⁴

He then goes on to say, “A culture defines the human enterprise by its dominant values” It follows then that a culture devoid of humanistic values (Adams would argue that our current culture, which he says is based on materialistic values, is such a culture) is one bereft of legitimacy, at least in the sense that legitimacy is imbued with the requirement that a culture foster the conditions for the fulfillment in humans of the inherently normative requirements of selfhood.

It is, of course, this argument--that humans have inherently normative requirements of selfhood, or a “normative constitution,” that is being subverted by the materialistic culture of modernity--on which Adams’ whole argument turns; and, thus, it is to the issue that humans have such a constitution and, consequently, that “value and meaning” are the basic humanistic categories, that Adams has devoted his major philosophic works.

⁴ E. Maynard Adams, *A Society fit for Human Beings*, p. xvi (SUNY Press, 1997).

Adams states that modernity is based on a naturalistic or scientific worldview. This worldview, he observes, relativizes all concepts of value and meaning so that what is real is what can be quantified, and value and meaning are taken to be only subjective concepts that exist to meet the subjective, individualistic and relativistic enterprise of selfhood. Thus, for example, in the modern view everyone can buy cars and whether one's values calls for a giant sports utility vehicle or an ultra-efficient compact car is just a matter of relativistic values, all of which are equally correct. As a result, in the current culture, cars and their production--materialistic components--are highly valued and protected, whereas issues concerning the use and meaning of personal transportation--humanistic values culturally deemed to be relativistic--receive little attention. Attacking the modern view, Adams provides an extended argument for "realistic humanism" under which value and meaning concepts have universality.⁵ An important part of this argument is that the secondary (non-sensory) modes of perception by which value and meaning concepts are acquired have the capacity to yield knowledge of universal applicability.

Adams' overall critique of the current naturalistic worldview is that it has produced a society that is not fit for humans, and in this lies the crisis. As a result of our dominant cultural understanding based on this naturalistic worldview, we have debased our humanity, our moral agency, and we have deprived the faculties that make us uniquely ourselves. We have denied our interiority, in religious language, our souls, by denying the secondary modes of awareness that constitute our uniqueness--the ability to perceive beyond sense perception through our emotive powers and those powers which Adams refers to as the affective (or feeling) and conative (or will) powers, and to exercise ethical choice through the exercise of our knowledge yielding powers, our rational critical powers, and our powers of moral appraisal. As a result, we have lost, or are losing, our capacity for self-transcendence that constitutes the essence of our humanity, and we have perverted our concepts of self and society, and our understanding of the meaning of our existence and the purpose of the cosmic adventure of which we are a part.

⁵ *Editor's note:* In Adams' Thought, this universality is ultimately grounded in the character of the Universe itself. This is his "realistic" view of the Universe, and this provides the tie between Adams' thought and Thomas Berry's thought which sees the Universe as primary and the human as derivative (in other words, sees the nature of the human as being derived from the nature of the Universe).

While Adams' way of thinking may seem too focused on the human to many who have developed ecology as a primary concern, one of the ideas that will be developed by the Center is that Adams' thought is important for understanding what is involved in "reinventing the human" and that a focus on *value* and *meaning* within human culture is an essential aspect of this. For there to be an Ecozoic Era, there must be an Ecozoic society, a new human society. Bringing this into being will involve more than focusing narrowly on the boundary of where the human community interacts with non-human nature. We must also be concerned about the development of humanistic values within human society and with the relations of humans with humans.

The Center will place an emphasis on the building of an Ecozoic society as the key to realizing the Ecozoic Era. The human community has huge needs. We now number over 6 billion people and human population is expected to grow to 10 billion or more in this twenty-first century.⁶ Humans have vast needs that go beyond the subsistence needs that are predominant in other animals. We can imagine how the subsistence needs of humans would be met in the Ecozoic Era if humans reverted to a primitive way of living. This is, however, unlikely, probably impossible, and also undesirable because this former way of living had its own enormous problems. When thinking about bringing into being the Ecozoic Era, the more difficult question than how to meet subsistence needs of humans while providing for the survival of other species, is how to meet the needs that bring about human fulfillment while bringing the functioning of the human community into a coherent relationship with Earth for the survival and enhancement of other species. To address this more difficult question will involve a revival, within the context of ecological concerns, of the humanistic enterprise and sustained reflection on what kind of society would make for human growth and well being, and an elevation of humanistic categories (such as meaning, subjectivity, the mental, spirit, normativity, selfhood, freedom, cultural objects, justice, social structures, human history, aesthetics, artistic expression, teleological causality, and ultimate reality in religion and philosophy) to a position of primacy within the human intellectual and social life (displacing in primacy, but not denigrating within their proper spheres, economics and technology). That this revival must take place within the context of ecological concerns will require a reexamination of the meaning and purpose of our humanity, of our capacities for fulfillment, and of the

⁶ *United Nations World Population Prospects: The 1998 Revision* (New York: December, 1998).

goals and aspirations of our societies, all for the purpose of re-placing ourselves within the larger community of life systems and establishing a viable mode of human presence on Earth.

Process Thought

Another important source of thought for the Center will be “process thought,” which is thought based on the writings of Alfred North Whitehead. Like Maynard Adams’ thought, the thought of Whitehead and his followers is complementary to that of Thomas Berry’s. Thomas Berry and Teilhard de Chardin, whose thought had a great influence on Thomas Berry, have been impressed by the story of the Universe as narrative, and from this narrative have drawn conclusions about the nature of the Universe as being evolutionary, changing, processive and teleological and as having a psychic-spiritual reality from its beginning. Their reflection was based on the cosmological, geological and biological story as it has become known in modern science. Each also brought to his thought a wealth of knowledge of human cultures, and of philosophy and theology.

Whitehead came at his reflection through the world of mathematics and physics as they developed in the first part of the 20th century, and also his knowledge of Western philosophy and theology. He sought not to understand a grand narrative, but to understand the nature of reality and to explain in categorical terms how everything comes to be. In his most important work, *Process and Reality: An Essay in Cosmology*, he described his task as that of “speculative philosophy,” which he defined as “the endeavor to frame a coherent logical necessary system of general ideas in terms of which every element of our experience can be interpreted.”

The framework of ideas he developed has become known as “process philosophy” and also “the philosophy of organism.” It has been called a neo-classical metaphysics because it undertakes to frame a general metaphysical system in the manner of classical metaphysics, but did this in a new way. There are several elements of this thought system as expounded by Whitehead that are of particular importance as follows:

First, reality in all of its dimensions is creative. This contrasts with the view that reality is determined by random events and change through locomotion (cause and effect determination resulting from substances in motion and controlled by the laws of motion).

Second, the essential character of reality is “becoming” or “flow” rather than “existence” or “stasis.” This is related to the concept of “cosmogogenesis,” the time-developmental character of the Universe, developed by Thomas Berry and Brian Swimme in their book, *The Universe Story*, the understanding of which, they believe, involves the most important intellectual shift, the “Copernican revolution,” of our time. In the past, according to Berry and Swimme, the Universe was viewed in a “spatial mode” as opposed to a time-developmental mode. Viewed in a spatial mode, the Universe was constant, unchanging, and ever-existing; viewed in a time-developmental mode the Universe is evolutionary, ever-changing.

Third, the fundamental element of reality is not “substance” but “experience” - everything comes to be through experience and everything has both a physical and a mental or experimental dimension. This corresponds to Teilhard de Chardin’s, and Berry and Swimme’s, thought that the Universe has had a psychic-spiritual dimension from its beginning. The mechanistic view of the Universe that became predominant in the early modern era saw the Universe as a collection of objects for humans to manipulate. When seen as having a psychic-spiritual aspect, the Universe becomes a communion of subjects.

Fourth, every individual experience is influenced by the experience of everything else in the Universe throughout its history. This is the philosophy of organism, that the Universe has an organic character and everything is interrelated, experienced and remembered. This corresponds to Berry’s and Swimme’s thought that the Universe has a narrative dimension in which every particular reality is a part of an unfolding cosmic drama.

Fifth, societies of multiple individuals have synergistic capabilities. This is the sociality principle and is consistent with Teilhard de Chardin’s observation that the Universe is moving in its evolutionary sequences toward greater complexity (toward more complex societies of individuals) and this

in turn is lending toward greater capacities for consciousness. Berry and Swimme have also observed there is a tendency in the evolutionary journey of the Universe to increasing complexity and consciousness.

Sixth, every creative experience of becoming is also influenced by novel possibilities and the individual exercises a choice in realizing those possibilities. Thus, each individual and consequently each organism (or society of individuals) has some freedom and is in part self-determining. This corresponds to the concepts used by Swimme and Berry of the differentiation of individuals and also the self-organizing characteristic, or *autopoiesis*, of individuals. While there is a dynamic tension between part and whole in the Universe, each individual in the Universe is unique, ultimately significant and of intrinsic value.

Seventh, the future is undetermined and open and exists only as a set of possibilities that are not realized until chosen. In this understanding, the future is not mapped out by either physical causality or divine causality, but is open to creative activity. Thus, there is always cause for realistic hope and always the call for conscious, responsible, creative participation of all.

Eighth, the character of existence is adventure and a quest for beauty, complex order and harmonization of contrasts of feeling. The ideal state of being then is not changelessness or being at rest, but creative adaptation and participation in a quest for beauty and harmony. Thus, the Universe has a teleological, or future/end-seeking, dimension.

Ninth, reality is a pulsating sequence of events each building on the other. In Whitehead's understanding, each new event in actualizing itself apprehends those events which precede it and takes into account novel possibilities of the future in deciding its final form, at which time the event becomes an object for new events. The present is perpetually emerging out of the past, but is never a mere repetition of it. It is the emergence of these events that gives time its sequential character. Events do not occur in time, they create time—a measure of a period of sequential transformations resulting from events—and time is necessarily uni-directional from past to future. This thought is consistent with Berry and Swimme's observation that the Universe is an evolutionary sequence of irreversible transformations.

Tenth, the Universe is guided by a pervasive, integral cosmic intelligence or consciousness that has both a primordial character of love by which everything is valued, and a consequent nature by which everything that comes to be influences this intelligence and becomes a new source of possibilities. Thus the guiding intelligence of the Universe, in this understanding, is not conceived as something that exists independently of the Universe, but rather as a pervasive reality that is within every part of the Universe and is an expression of the unity of the Universe in its cosmogenic journey. This cosmic intelligence has had a variety of names from the Tao, to the Buddha nature of the Universe, to God, and many more.

Eleventh, the cosmic intelligence does not act through coercion, but through persuasion and lure of feeling. Thus, the cosmic intelligence does not control the Universe, rather it and each individual are co-creators, and individuals have a capacity for free choice for good or ill.

Twelfth, spirituality and creativity are related concepts and they always occur in actualizing events. Therefore, the locus of spirituality is in the creativity of actual existence not in some higher realm; spirituality is not disembodied rather it exists in the process of things coming to be; and the cosmic intelligence is ultimately concerned with the evolutionary, creative adventure of the Universe.

One might wonder what the value of such an abstract system of ideas and categories would be in the Great Work. The answer is that behind our thought and analysis as humans lies a philosophical framework. This framework both enables our inquiry and limits it. This philosophy also affects perceptions of value and of worthwhile action. There is a need for a philosophical framework that is consistent with the Universe story and it is believed that process thought provides this framework. Understanding this philosophical framework permits the application of the wisdom of the Universe story in every dimension of life. Thus, it can make an important contribution to the realization of the Ecozoic Era.⁷

⁷ For an additional discussion of Whitehead's ideas, see Lewis S. Ford, "A Conceptual Background for Ecozoic Aspiration," *The Ecozoic Reader*, Vol. I, No. 1, p. 31-40 (Fall, 2000).

Archetypes and Cultural Transformation

Another source of thought for the Center will be that of the Swiss psychoanalyst, Carl G. Jung. Jung, like Freud saw the unconscious as having a dominating influence on human conduct. But for Jung, the effect of the unconscious was more positive than for Freud, and the unconscious for Jung had more of a social or collective dimension. Jung saw the dreams and intuitions of the unconscious as offering positive guidance to life. For Jung, the unconscious has its own wisdom, a wisdom that he saw as repressed by our modern culture that bifurcates the factually, provable known world from the imaginings of the unconscious. As Thomas Berry, however, expressed in *The Dream of the Earth*, and again in *The Great Work*, we are now at a time when we must go beyond knowledge that is factually available to us and open ourselves to the wisdom and power of the dream to guide us to an Ecozoic Era that exists beyond the cultural framework and limitations of the modern era. This is a thought with which Jung surely would agree.

Another thought of Jung's of great importance is that within our unconscious are certain archetypes, or models of reality, that guide our actions. Thus, one might have an archetype of a heroic warrior and one might configure one's life in response to that image. Jung believed that these archetypes were developed over the course of human history and are now shared as collective unconscious archetypes that guide our actions. Transformation in human culture, therefore, involves transformation of these archetypes. Archetypes might involve not only personal images, such as the heroic warrior, but also models of civilizational presence, such as an image of how a community should look. Thus, in the medieval period, the archetype of the quintessential building might have been a gothic cathedral whereas today it might be a skyscraper office building.

For Jung, the way archetypes change is part of the process of the unconscious dreaming self. The movement into the Ecozoic Era will involve a change of archetypes, archetypes that may already be found within us. For Thomas Berry these dreams come to us through our genetic coding as an expression of the dream of the Earth. A part of the purpose of the Center will be to encourage the sharing of stories and dream experiences as a way of enabling the creative advance to bring into being new cultural archetypes for the Ecozoic Era.

Other and Non-Western Thought

The sources of thought described in this paper are in not meant to exclude other ideas and sources of thought. The Center will welcome other sources of thought, as well as stories, images, art, dance and music. Voices of the South and the East will be especially welcomed. Whatever the sources of what is offered to the Center for consideration, the question that will be asked is, “Does this help us to understand, appreciate, move toward or celebrate the Ecozoic?”

III. Relation of the Center to Other Groups

Ecology, Human Justice and The Earth Charter Initiative

Organizations that become involved in ecology sometimes lose sight of human justice issues. Moreover, at times a single-minded focus on environmental concerns may be seen by people who work on human justice issues as a wrongful diversion of human resources for change.

The Center will consciously bridge the gap between ecological activism and social activism by showing how environmental degradation disproportionately impacts the poor, by showing the correlation between environmental abuse and social abuse, by calling attention to eco-justice issues such as dumping of toxic wastes and exposure to toxins in the work place, by promoting economic equity and a fair distribution of water and other natural resources, by stressing the importance of development of relatively self-sustainable economies and investment in appropriate technologies in each bioregion, and by calling for a culture of peace with an extensive reduction of military forces and armaments

A movement has arisen that has expressed such an integrated approach to ecological and social issues, and it is called the Earth Charter Initiative. In the 1990's, hundreds of organizations and thousands of individuals around the world worked to develop a people's treaty setting forth fundamental ethical and political principles for achieving a sustainable way of life. The Earth Charter is intended to be both a soft law document and an educational instrument expressing principles that could guide any organization. The Center will join in the Earth Charter Initiative and actively support its aims, objectives and programs.

Ecological and Philosophical Groups

The Center has a natural connection with other ecological and philosophical groups. The hope is that the Center will work in a cooperative way with these groups and augment their efforts.

At its inception, the Center will work with *Earthlight Magazine*, the Center for the Universe Story, the Forum on Religion and Ecology, the North American Coalition on Christianity and Ecology, the Epic of Evolution Society, The Center for Process Studies, The Whidbey Institute, the Northwest Earth Institute, the Piedmont Bioregional Institute, the Center for Reflection on the Second Law, the Center for Respect of Life and Environment, and the Center for Spirituality and Sustainability. As the work of the Center continues, relationships will be formed with many other groups.

Religious Communities and Other Groups

The word “religion” comes from Latin word “*religare*” meaning “to tie fast” or “to bind together.” This rootage seems to fit that aspect of religion which is conservative and binds together a society and its existing cultural norms and institutions. Because of this aspect of religion, there seems to be a sound basis for arguing that religious institutions are inherently conservative. The authority of the establishment in every age seems to become grounded in the precepts of the prevailing religion. Given this, it is no surprise why many reformers throw up their hands at “religious institutions.” These institutions, they say, despite the revolutionary nature of many of their teachings, is really the problem, not the cure. Yet, because of this binding character of religion, and religion’s emphasis on understandings of value and meaning, perhaps the most important effort a reformer can make is to transform established religion. Likewise, because of this binding character, perhaps there can be no comprehensive change in a society without a change in established religion.

The changes related to the Ecozoic Era will involve all institutions of society and the Great Work involves transformational efforts in each one. The Center will address various institutions (Thomas Berry highlights the universities, governments, and corporations, along with religious institutions, as being institutions deserving special attention) and, among them, with special importance, the institutions of religion.

IV. Closing Thoughts on Forgiveness and Grace

Two final thoughts deserve mention and will filter their way through all of the work of the Center. The first is forgiveness, forgiveness for our own ecological ignorance and harmful actions and for the ignorance and harmful actions of others. Guilt seems to be an occupational hazard of the ecologist. We live compromised lives and do not know how to live the sustainable lives we seek to realize. The Center's message on this will be for us to acknowledge, as individuals and communities, our own complicity in the ecological crisis, but not to become paralyzed by demands for consistency in life style and ecological values, and not to take on unbearable responsibility for resolving the ecological crisis. Instead having acknowledged our complicity, the task would be to think about, or be open to, what the next step would be for one to take to move toward the Ecozoic, and to take it . . . and if one does not, or cannot, to accept forgiveness and take the next one. That's all anyone can do.

And the final thought is grace. Grace might be thought of as unmerited favor. There has been a quality of grace to the Universe--this has been shown in the Universe's capacity to bring about novel solutions for seemingly intractable problems, for renewal in the aftermath of catastrophe, and for resilience in the face of adversity. The Universe, God, the cosmic intelligence, however you would put it, has been gracious. Because we see the record of such graceful events in the evolutionary story of the Universe, we have a basis to trust there are larger processes at work that will give significance to our own seemingly inconsequential efforts to bring into being the Ecozoic Era. Indeed, we have a basis to trust that by grace our undertakings in the Great Work will not be in vain and that despite the current crisis and denial and our own inadequacies, the Ecozoic Era will in time come to be.