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Chapter Two-

The Man/Nature Problem

In *The Historical Roots of Our Ecologic Crisis*, an article that came to be known as the 'ecological shot heard round the world', Lynn White wrote:

What we do about ecology depends on our ideas of the man-nature relationship. More science and more technology are not going to get us out of the present ecological crisis until we find a new religion, or rethink our old one (White, 1967).

More recently, M. Paul Friedberg observed that expanding and explaining the knowledge base of the design disciplines:

requires a profound philosophical base to work from...Without this we are not much more than a collection of individuals with specific personal points of view... not a profession (Miller, 1997).

If White and Friedberg are correct, then our profession needs a renewed and common religious and/or philosophic basis on which to ground a workable professional ethics. Since Western culture, or at least its intellectual leaders, has become profoundly relativistic the task will be difficult at best. To move ahead in the domain of environmental ethics, our profession must necessarily engage in intellectual and social activities that are not presently in fashion. We will have to undertake philosophical reflection, examining the possible range of definitions of humankind/nature relationships. More dauntingly, we will have to critique these various definitions and become collectively convinced that we can choose one in preference to the others.

The Decline of Modern Rationalism

A brief recollection of history is required to understand the apparent collapse of modernism which has contributed so profoundly to our contemporary state of confusion. The groundwork for a strictly techno-scientific world-view was laid by philosopher Rene Descartes in the early 1600's. Descartes held that reality consists of two different kinds of substances: mental and physical. Physical substances, according to Descartes, are spatially extended and are mathematically measurable. They possess no spiritual, conscious or mental attributes. Thinking substance, mental and spiritual reality, do not possess any quantifiable dimensions (Lavine, 1984, p.122). By this categorization, Descartes created two distinct worlds with a chasm fixed between them. The physical world that could be known on the basis of the rational and the mental/spiritual world that was non-rational. This led to conception of nature as nothing more than a gigantic machine, and since the machine possessed no inherent value; nature became raw physical substance to be manipulated at will (Campolo, 1992, 26, Rosenberg.1986, p.76).

The humanistic philosophers of the Enlightenment followed in the footsteps of Descartes. As observed by Francis Schaeffer, the “humanistic elements which had risen during the Renaissance came to flood tide” during the Enlightenment (1982, V5, p148). At the same time that science was being elevated as a superior way of knowing the foundations of the orthodox Judeo-Christian religion were under attack. Enlightenment philosophers “pushed aside the Christian base and heritage and looked back to the old pre-Christian times” (Schaeffer, 1982, V5, p149). In defining humans as the supreme beings of the universe, Enlightenment thought set aside (seemingly) once-for-all the existence of absolutes, and thus followed the dissolution of timeless and mythical truths (Campolo, 1992; Schaeffer, 1982; Corner, 1990). In the:

de-sacralized, secular world in which we live, the ancient stories of the race and its ritual and dance no longer serve to illuminate our place within the cosmic order, giving meaning to daylight and darkness, seedtime and harvest, and the struggles of heroes, saints and ordinary men and women(Howett, 1987,p8).

As a consequence of the modern brand of humanistic philosophy which our culture embraced during the greater portion of this century, “humans have been peculiarly alone- the sole generators of our own being, meaning, and truth” (Corner, 1990, p.66).

In the last two decades, however, the fortress of rationalistic science has begun break apart. Ironically, it is science itself that led us to question the techno-scientific world view. Many authors link the current shift in world-view to recent findings in the sciences of physics and ecology (Rosenberg, Ross, Wilkinson). Modern physics and the science of ecology have demonstrated that the universe is not a machine, but rather, a “dynamic whole whose parts are essentially interrelated and can be understood only as patterns of a cosmic process” (Capra, 1983, p.75). With the breaking-down of scientific positivism has come an urgent struggle to construct new forms of meaning in Western culture. Planners and designers who understand these changes have been quick to point out the potential they hold for a new and more vital profession

Proposed Directions

In 1986, Ann Rosenberg wrote about an *Emerging Paradigm for Landscape Architecture*. Rosenberg refers to this paradigm as ecological humanism. The emergence of this paradigm stems from advancements in physics and ecology that demonstrate the dynamic interconnectedness of the universe and everything it contains. These findings form the basis for a new conception that allows for no separation of humans from nature or of mind from matter. The result is an appreciation of the integration and relationship that humans share with their environment. As opposed to being atop “the pyramid of living things” ecological humanism recognizes “the integration of the human element into the environmental continuum” (p.79). However, the human being is not seen as simply another species. Ecological humanism, therefore, attempts to walk a “difficult middle course in which the needs of humans and the needs of the environment *converge*” (p.79-italics in the original). According to Rosenberg, the new paradigm will take us beyond attempts to balance social, environmental and aesthetic concerns and will become a foundation for “integration and interpenetration in which systems act synergistically and cooperatively” (p.82).

Catherine Howett’s (1987) request is for a new landscape aesthetic that can, “body forth our understanding of the astonishing complexity, fragility, and beauty of the world and celebrate the new, more caring and loving relationship into which we wish to enter (p.11). As a foundation for this new aesthetic, Howett proposes that we incorporate the new ecological perspective with our growing understanding of environmental psychology and semiotics. Ecology provides

understanding of the workings of the larger world. Environmental psychology examines human response to experiences in that world. And semiotics provides a means of understanding and communicating culture through symbols embodied in the built environment. In a way, Howett expands our understanding of Rosenberg's ecological humanism. She proposes mechanisms by which we can attempt to address the individual, culture and the whole of the ecosystem.

While Rosenberg and Howett attempt to build the basis for a new world-view, James Corner addresses the approach that can be used to construct such a view. His writings offer a lesson in post-modern epistemology. Corner proposes that we approach the landscape through the use of hermeneutic principles. Hermeneutics is a theory of understanding and interpretation that is bounded by context. Corner establishes three assumptions that are essential to his hermeneutic approach. First, because the world is not exhaustively knowable there can be no single adequate viewpoint. All truth is relative to a specific time and culture. Second, all primary knowledge comes from direct experience. Meaning in life is constructed out of experience. Third, tradition is not a static past. Instead, it is "the creative and processual power of which we are an integral part" (Corner, 1991, p.127). This idea is critical to Corner's thought. If we can learn to "devise new meanings (futures) from a critical and yet imaginative reinterpretation of our tradition (past)" then we can free ourselves from a need for continual progress on one hand, or the need to blindly repeat history on the other. For Corner, the history of human endeavor is a "quarry" of consciousness that both recalls the past and presents possibilities for the future. Our task as designers is to develop a landscape that embodies these interpretative qualities. The challenge is to develop a landscape that is the embodiment of "both divination and restoration, prophecy and memory" that will "help figure and orient the collective consciousness of a modern culture still caught in transition" (Corner, 1991, p.131).

What the Proposals have in Common

Candidates for world-view of the future can be loosely divided into secular and spiritual categories. Secular proposals tend to be based on post-modern philosophy which centers on the idea of language. We see loose reference to these ideas in Howett's appeal to semiotics and more specific reference in Corner's hermeneutic epistemology. Spiritual proposals tend to be based in the pantheistic and/or polytheistic leanings of the New Age movement. The writings of Fritjof Capra, whom Rosenberg cites as a major source, are grounded in a combination of quantum theory and Taoist monism.

Regardless of the source, the proposed world-views typically share many commonalities. The new views count individuals, society and environment as co-equal concerns. They recast our conception of the relationship between humanity and nature with the goal of enabling us to live within rather than above nature. The resulting environment, they suppose, will body forth the values of our culture in a way that provokes heightened understanding of the meaning of existence. These conditions will lead to a higher level of fulfillment for us as individuals. Many of us look forward to the achievement of these aspirations with great anticipation. They are beacons of hope in a rapidly changing and uncertain world. But, there is reason for caution even as we speak optimistically.

Post-modern secular philosophy rests on foundations that are not that different from the humanism of the Enlightenment. A central tenement of humanism is that man is the measure of all things. Humanism, in this sense, is the unifying theme of all philosophy. On this point, the post-modernist and modernist stand on common ground. In addition, the post-modern proposals are dialectic in methodology. The significance of this point should not be overlooked. We can

understand its importance more fully by comparing modern and post-modern philosophy with classical philosophy.

Classical philosophers were humanists, in the sense that they began with themselves and from themselves attempted to construct an overarching explanation of reality. Since no philosopher's view was ever able to withstand the scrutiny of successors, early views were torn down and others were constructed in their place. By this process, classical philosophers sought to build a unified and comprehensive field of knowledge. The classic philosophers also held in common their method. They operated on the basis of antithesis. Antithesis says that if 'A' is true its opposite must be false. Behind this method was the presupposition that absolutes exist. An absolute truth is one that is universal in scope, unchanging over time, and exists independent of our acknowledgment. Though classical philosophers did not always agree on what the absolutes might be, they never-the-less embraced the possibility of absolutes (Schaeffer, 1982). If 'A' was true, its opposite must necessarily be false. Philosophy followed this path attempting to define an overarching view of reality using antithetical method for over 2000 years.

Beginning with the German philosopher Hegel in the early 1800's the methods and presuppositions of classical philosophy were confronted. Hegel tore down the classic method of antithesis, and erected in its place a significantly revised version of Plato's 'dialectic'. Dialectic is a process that begins with a proposition, a thesis. The thesis is opposed by a contradiction, an antithesis. The opposition between thesis and antithesis is resolved by synthesis resulting in a heightened level of understanding (Lavine, 1989). For Plato, the dialectic was directional and lead to a state of knowing truly. For Hegel, however, the dialectic process is self initiating and recurrent. Dialectic method, for Hegel, is directional but does not necessarily come to resolution. Knowledge moves toward a higher level of truth but it need not, in fact cannot, arrive at absolute truths. Hegel presented an evolutionary model of truth which stands in sharp contrast to the classic method of antithesis.

Hegel still believed that unity in the body of knowledge was possible and that synthesis could be attained by reason. His hope for a unified field of knowledge was soon shattered by the writing of Soren Kierkegaard: the father of modern thinking. The writings of Kierkegaard present a strange mixture of orthodox Christian and humanistic thought. In the Book of Genesis, God command Abraham to offer his son Isaac as a sacrifice. In Kierkegaard's analysis, Abraham's obedience to God constituted a totally irrational act: a blind 'leap of faith' (Schaeffer, 1982, p15). Kierkegaard argues, as does Solomon in the Book of Ecclesiastes, that all human striving ultimately leads to emptiness. Reason, for Kierkegaard, could lead only to meaninglessness. The resolution of this anxiety could be accomplished only by giving in to it. Only on the brink of despair could a person abandon reason and make a blind leap of faith into the arms of God (Levine, 1989). Kierkegaard's philosophy forms the basis of modern thought wherein there exists a total separation of faith and reason. As a result of Kierkegaard's writing:

if rationalistic man wants to deal with the really important things in human life (such as purpose, significance, the validity of love), he must discard rational thought about them and make a gigantic, non-rational leap of faith. The rationalistic framework had failed to produce an answer on the basis of reason, and so all hope of a uniform field of knowledge had to be abandoned (Schaeffer, 1982, p.16).

If we revisit the writings of post-modern design theorist James Corner, we are now in a position to see his world-view more clearly. Corner's hermeneutic approach to theory rests on three basic assumptions. The first of these assumptions is that, "'truths' are only relative concepts, subject to shift and change (Corner, 1991, p. 125). Corner's hermeneutic abandons any type of fixed

reference points and relies entirely on contextually bounded interpretations of reality. Like most post-modernists, he rejects the tyranny of modern rationalistic thinking, but his proposal retains humanistic presuppositions and a reliance on dialectic methodology.

In opposition to the secular humanistic proposals of post-modern philosophy stand the New Age mystics. The New Age movement, to its great credit, has renewed an interest in spirituality in our culture. It has rejected the humanistic presuppositions of modern and post-modern philosophies and erected in their place the ancient notion that 'all is One.' Under this view, as Rosenberg states, "the needs of humans and the needs of environment *converge*" (1986, p.79). Of course, there is really nothing very new in the New Age movement. What is really involved is the replacement of traditional Western world-views with pantheistic or polytheistic views. Greek pantheism, Eastern mysticism, Native American animism, witchcraft and occultism are all represented among proponents of the New Age movement.

Our present concern in examining modern, post-modern and New Age thought is the basis they provide for establishing workable human/environment relationships. It is in this area that the landscape architect may most easily understand the distinctions.

The Foundation of Environmental Ethics

Ethical problems rest on our notion that actions may be morally right or wrong. Ethics, the enterprise, deals with the establishment and justification of moral rules that govern human conduct. When we study environmental ethics we are concerned with developing a basis for determining what constitutes acceptable and unacceptable behavior concerning the environment.

Landscape architects must be especially concerned with the study of environmental ethics. Our professional mission is founded on the ideal of providing for human needs while maintaining, at least to some substantial degree, the integrity of the ecosystem. The knowledge we gain from science is essential in carrying out this mission. In some cases, the practitioner needs to know what practical consequences can be anticipated if a certain alteration of the land occurs. Science is perfectly suited to supply the answers to such questions. Science may also be adequate when it becomes necessary to assign relative value to certain processes or attributes of the land. For example, science may suggest, in a given situation, that it is more important to preserve wetland than upland forest because of its greater functional contribution to a healthy ecosystem. When it comes to distinguishing necessary from superfluous human needs, however, science has its limitations. Science explains what exists. Ethics may address what ought to exist.

When landscape architects enter the arena of environmental ethics they fumble a lot with terminology. A particular culprit, in my observation, has been the term 'nature'. A colleague of mine was so captivated by this idea that he developed a course called *Concepts of Nature*. His thought we might be better able to respond to nature if we understood conceptions of it among people in differing times and cultures. He received a lot of 'collegial advice' concerning the title of the course. Over lunch one day, I suggested that nature meant the essential qualities or reality of a thing. Wouldn't it be better to study the essential qualities of nature than to study people's ideas about those qualities? My colleague replied that *Definitions of Nature* might have been a better title for the course. A few days later, a professor of philosophy saw a flier advertising the course and quipped, 'How can those landscape architects speak about concepts of nature before they have established that there is something called nature to have concepts about?' His observation and my own were similar, though his was more eloquent.

If we human beings are going to protect 'nature', we have to know that it is an entity and not just an idea. We also need an adequate reason to say that 'man' has an obligation to care for 'nature'. Strictly speaking, the existence of me, as self and of a physical universe cannot be taken as givens. In fact, the notion of a man/nature relationship will irritate deep ecologists and eco-feminist who reject all dualistic thinking and see the term 'man' as inherently gender laden. Please be patient. For the moment we are going to continue speaking as if both exist and move on to defining our terms.

The definitions of many of our English words were extrapolated from their usage in the text of the Bible. Several words in the Hebrew of the Old Testament were translated into English as 'man'. 'Adam' is the most frequently used. Genesis 1:27 states that "God created man (Adam) in His own image...male and female created he them." Similarly, the Greek word 'anthropos' in the New Testament writings, from which we get our word anthropology, is translated man. Webster's Dictionary offers several definitions for the word 'man' - two of these are, "a human being", and, "mankind." If we make a composite of these we arrive at the term 'humankind': meaning all of the kind that is human. Based on the history of our language, we should understand that in the writings cited here the term 'man' is frequently employed without the intention of a dimension of gender. Since 'man' inescapably evokes dimensions of gender from some, my preference will be for the term 'humankind'. It is not necessary at this point to develop an argument concerning the attributes that distinguish humanity. Suffice it to say a species of creatures we call 'humankind' exists.

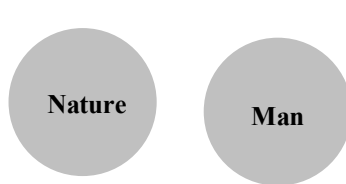
Like 'man' the term 'nature' also shifts in its meaning depending on context. The word 'nature', like a chameleon, has an uncanny ability to blend in with its context. The writings of John Lyle, a leading proponent of sustainable design, will provide our example. Lyle's writing makes a substantial contribution toward design according to ecological principles. One of the crucial tenants of the new ecology, as we have already seen in the writing of Ann Rosenberg, is that humankind exists within and is fully dependent upon natural systems. The ecologist pictures humankind as subsumed within the realm of matter, physical processes and biological processes. This is the biosphere. For short, we often call it 'nature'. In *Design for Human Ecosystems*, however, Lyle (1985) states that we can use the principles of ecology to create "landscapes that will serve the purposes of both people and nature" (p.1). Later in the same book, Lyle says there are land areas we might choose to develop in a way that would "exclude nature entirely" (p.15). The two uses of the term 'nature' cited here appear to be in total contradiction with concept of biosphere, and hence, with Professor Lyle's ecological stance. In the first, humankind and nature are pictured as distinct. But, ecology says this is not so. Then Professor Lyle says it is possible to have a landscape that contains no 'nature' at all. Of what is a landscape containing no nature made? Our mission here is not to critique Professor Lyle's writing. For these few examples, it is easy enough to determine his meaning by looking at the context in which he uses his terms. In the first case, 'nature' is everything except human beings. In the second case, 'nature' refers to 'green growies' and a romantic image of wildness. It is the same kind of 'nature' that Olmstead was trying to rebuild in Manhattan's Central Park.

When we begin searching for a world-view that can support an adequate environmental ethic, we should be watchful of how the term nature is used. We do not want words to be used in a semantic 'sight of hand' allowing us to think we have arrived at a substantial position when we in fact have not. Humankind and nature relate differently in different world-views and we must test to see that the terms and their relationships can withstand scrutiny. How we define the term nature and where we position humankind relative to nature has everything to do with defining an environmental ethic. Let us begin by assuming that nature is an entity, a thing or a collection of

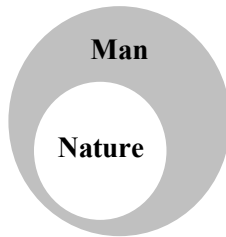
things. We can then proceed to more fully define the term nature within the context of three predominant world views.

Three Prevalent Models

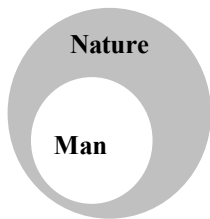
If we begin with two entities, humankind and nature, there are a limited number of possible relations between them. One possibility we can entertain is that one or both of these entities do not exist. Let us dismiss possibilities in this realm and any world-views that go along with them for practical reasons. If humankind does not exist we have no problems. If nature does not exist we have no material environment, and hence, no need of an environmental ethic.



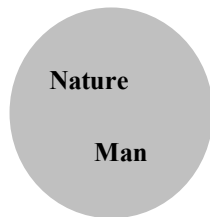
Next we must consider whether the two entities are discreet. Are humankind and nature completely separate or do the two entities co-exist in some manner? There do not appear to be any major world-views contending that humankind and nature are totally separate and unrelated entities, so we are free to consider the possible relationships.



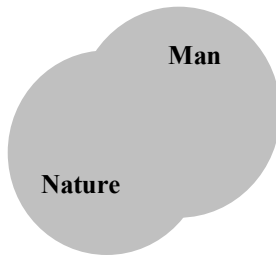
One possible relationship would be that humankind subsumes all that is nature. For example, we could conclude that nature exists *only* as an entity conceived in the mind. To do this with all aspects of nature we must conclude that the air we breathe is imaginary air. Air pollution is therefore a conceptual problem. This won't do the profession of landscape architecture a bit of good. There must be at least some physical reality to nature independent of humankind.



Another view is that humankind is totally subsumed by nature. This relation is the basis of scientific naturalism, a widely held view in contemporary Western culture. This is a world-view landscape architects must entertain in the study of environmental ethics.



We might arrive at an alternative to naturalism by shifting our thinking about entities. We might say that humankind and nature exist as entities, but at root they are one. Or to put it another way, humankind and nature exist as distinct manifestations of a single essence. This view is pantheism. It is widely held in Eastern culture and among proponents of the New Age movement. We need to consider this possibility too.



A final way to differentiate the relationship is according to the dimensions of the entities. In some aspects of being humankind and nature might exist within one another while in other aspects remaining distinct. Theism as it is held in Judaism, Christianity and Islam are represented by this view. We need to consider this view or this book will end prematurely.

We are now prepared to speak about humankind and nature in the context of the universe. The study of the structure, origin and development of the universe is called cosmology. It is important to everyone, including landscape architects, because our conception of the universe is directly related to our world-view and in turn our daily activities (Ross, 1995). Science, theology and philosophy each lay claim to cosmology. Although many world-views exist, if one examines the cultures of the world through history it can be seen that there are three basic cosmologies: naturalistic, pantheistic and theistic.

Metaphysical Naturalism

Individuals who espouse metaphysical naturalism (a distinction needs to be drawn between individuals holding to naturalism as an essential basis for scientific inquiry and individuals who espouse an entirely naturalistic worldview – when I say naturalist I’m referring to the latter) believe that all phenomena can be explained on the basis of natural causes and laws. Nature here is the material universe and everything that happens within. Naturalists maintain that there is no supernatural. The source of all that exists is time, matter and chance.

A key theory among naturalists is Darwinian evolution. The basic mechanisms of Darwinian evolution are mutation and natural selection. Mutations are random in that they are not directed by anyone or anything in particular. Natural selection is simply that ability of creatures with certain mutations to survive and gain a competitive advantage. In the naturalist view it is through these chance mechanisms that humankind has arrived. Humankind, therefore, is totally and inescapably subsumed within nature.

Naturalistic views are by no means limited to the realm of the physical sciences. Nearly all of the theory in social sciences is based on a naturalistic world-view. Rachael and Stephen Kaplan are environmental psychologists, well known to landscape architects. Their writing may provide a familiar illustration. In *Humanscape* the Kaplans (1982) tell us that environmental psychology may well be functionalism revived. What they mean is that environmental psychologists are especially interested in studying the meaning of behaviors in terms of the contribution they make to the struggle for survival. They further propose that it is not behavior, but the structure of the brain, that we have inherited from evolutionary ancestors. From the Kaplan’s functionalist perspective, “it is the pattern of connections between neurons in the head that underlies a person’s capacity to think, to feel, and to act” (Kaplan, 1982, p.8). If the Kaplan’s are correct, all human activity is survival response triggered by bio-chemical reactions that are limited by our inherited structure which is a product of time, matter and chance.

The connection between naturalistic cosmology and the meaninglessness of humankind has been acknowledged by scientists, philosophers and theologians. Stephen Hawking, the physicist and

well known author of *A Brief History of Time*, states that man is determined. That is, humankind has no free will. Humankind is a part of the universe that is a gigantic machine. It is within naturalistic cosmology that humankind must live, as Corner suggests, “peculiarly alone.” The loneliness and insignificance of human existence that flows from a naturalistic this view of reality is represented in many areas of contemporary culture. Bob Seger sings:

I feel like just another spoke in a great big wheel,
like a tiny blade of grass in a great big field,
I feel like a number.

If the cosmos is the product of blind time, matter and chance, human beings don't just feel like numbers. The bad news is, in a naturalistic universe, we are numbers: not specific numbers, rather totally random numbers.

A naturalistic cosmology places some severe limits on environmental ethics. First, everything in such a universe is a particular, no absolutes exists. Many theologians and philosophers have attempted to develop ethical systems in the absence of absolutes but no one has succeeded. This is why naturalists who are true to their presuppositions say that all ethical statements are meaningless. A true naturalist is also a true nihilist. Logic leaves the naturalist in a world without values. If humankind is totally determined, totally bounded by chance, totally limited by the possibilities of natural process, it follows that all acts are natural. And, if the universe is totally governed by natural process, how can any natural act be immoral? In the naturalist's universe what is- is right. To destroy ecosystems is as natural a thing to do as preserving them. Hedonism, Nietzsche's ethics of power, and despair are the only logical options. It was this understanding that led Kierkegaard, against all reason, to the blind leap of faith. The good news is, as we shall see in the next chapter, there is reason to question naturalism on the basis of substantial evidence.

Pantheism

Pantheism is the view that all is one. Like naturalism, pantheism assumes that there is no existence beyond the universe. The universe is the extension of God's essence (Schaeffer, 1982). On the basis of pantheism there is no differentiation of humankind from nature, or, self from others. Paganism, Native American animism, Hinduism, Buddhism all have strong connections to pantheistic cosmology. More recent world-views based on pantheistic cosmology include Deep Ecology, Eco-Feminism and the Gaia Hypothesis.

In the traditional Eastern forms of pantheistic thinking the universe, being co-equal with the essence of God, is presupposed to be infinite in age and extent. Immanuel Kant also reasoned that an Infinite Being could occupy nothing less than an infinite universe (see Ross, chapter 6, footnote 1). Since astrophysics has now provided compelling evidence that the universe had a beginning in time, modern Western culture has tended to reject this presupposition. Western pantheists now attempt to explain God's existence in a different way.

James Lovelock, author of *The Gaia Hypothesis*, holds to a naturalistic cosmology and to Darwinian evolution as an explanation for the origins of life. He states, however, that Gaia (the Mother Earth) is “a single living entity, capable of manipulating the Earth's atmosphere to suit its overall needs and endowed with faculties and powers far beyond those of its constituent parts”(1979, p.9). Lovelock says it is difficult to talk about Gaia without implying that she is “sentient”: that is possessing mind and feelings. Since his strictly naturalistic presuppositions

eliminate the possibility of a personal God, Lovelock chooses a non-rational leap to a god who is co-existent with nature. This god, while not sentient, possesses powers which take on the appearance of intelligence, volition and the ability to alter natural process.

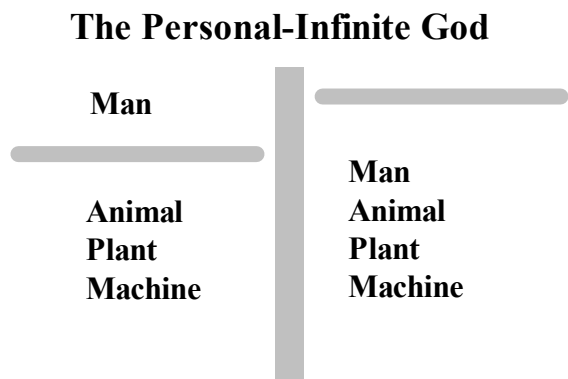
Many who are concerned with the ecological crisis are leaving behind naturalism in favor of Pantheism. The reason for this is the emphasis pantheistic views place on the oneness of everything in the universe. Insofar as pantheism is able to overcome the dualism inherent in naturalism and in some Christian theology, pantheism seems a better alternative. Like naturalism, however, pantheism has its limitations in the area of environmental ethics. As Norman Geisler puts it:

the ship of pantheism is wrecked on the reef of evil...how evil can arise from God who is absolutely and necessarily good?...there is neither ground for absolute Good nor an ultimate distinction between good and evil in a pantheistic universe” (Geisler, 1988,p.189).

Pantheistic thinking deals effectively with the concept of unity but is incapable of distinguishing particulars. In this sense, it is the polar opposite of modern humanism, which espouses all particulars with no universals. The lack of particulars is more than a theoretical weakness, it is a practical weakness. Francis Schaeffer (1982) illustrates this point citing a passage from Camus’ *The Plague*. Orion, the character in Camus’ dilemma, is caught in the choice of whether or not to fight the plague. If he fights the plague, he is going against God. If he does not fight God by not fighting the plague, he is being inhumane. Schaeffer goes on to say, “if one is putting forth a pantheistic mystical answer, there is no solution to the fact that nature is not always benevolent” (Schaeffer, 1982, V5, p.18). In a pantheistic universe humankind has no basis for pulling the weeds in the garden in favor of the beans, peas and tomatoes. In fact, humankind has no basis for tilling the ground, because the ground itself is God. Humankind and nature are not only united in a pantheistic universe at the level of ethical practice, they become indistinguishable.

Theistic Creationism

Theistic creationism does not begin with the universe, it begins with God. God exists. The God who exists is a unity containing differentiation. God is the essence of personality but God is also infinite and transcendent. God created the universe out of nothing (ex nihilo). Everything in the universe is created (the issue here is not the mechanism of creation – evolution vs. divine fiat- but the reality of the creative act itself.) As the very word universe includes both unity and diversity, so does creation.



The characteristics of God make possible a relationship where humankind is both totally connected with and yet morally responsible for nature. A graphic adapted from Francis Schaeffer’s writings (1982) illustrates these relationships. With respect to his infinite attributes God is distinct from all of creation. God is infinite everything in creation is finite. God is necessary while everything in creation is contingent. Humankind, being a collection of created contingent beings, fully participates within God’s creation.

With respect to his personality, however, God has created humankind in his own likeness. Our personality including the ability to conceptualize, to use language, and to have true moral motions are owing to this distinction. Theists say that the problem with the environment is the result of humankind's abuses of God given freedom. Humankind has chosen to treat the environment in a way that is contrary to God's character and will. Therefore, we are responsible for mistreating the environment. We experience more than guilt feelings or utilitarian inconveniences when we abuse nature for our own sake. There is true moral accountability.

Theistic cosmology is not without its critics. The charges which have been leveled against the Judeo-Christian world-view warrant a thoughtful response. As the remaining chapters are dedicated to developing the theistic position, we will address many of these criticisms as we proceed.

Religion and Environmental Ethics

Is there a place for religion in the resolution of the ecological crisis? Certainly theists and proponents of New Age spiritualism think so. Max Oelschlaeger, a noted scholar of environmental ethics and editor of *Postmodern Environmental Ethics*, also thinks so. Though American culture is rapidly becoming more secular, Oelschlaeger (1994) believes that:

the overarching context of our fundamental beliefs- that time is meaningful, that human life is morally significant, and that humans can live together in a good society- have been and are being shaped by the Judeo-Christian narrative tradition (p 85).

Oelschlaeger's interest in religion is decidedly post-modern in its orientation. He sees religion as the only motivating force that is likely to move Americans toward caring for the environment. Oelschlaeger is unwilling to grant the Judeo-Christian tradition any truth status. Consistent with post-modern emphasis on language, his strategy is to offer up 'god words' as a rallying cry. He proposes the metaphor "Caring for Creation" as a phrase that religious and secular people can equally support. Oelschlaeger's book, *Caring for Creation*, focuses on developing an ecumenical coalition capable of generating enough political support to bring about significant environmental change.

The proposal to form a cooperative of individuals representing all world-views to push forward environmental protection and hopefully forestall the eco-crisis is a very worthwhile goal. We need to support and participate in a serious form of environmental stewardship and this will require cooperation by individuals who do not always agree. Our first task should be to define what we mean by environmental protection. When the first conflict arises, what values will our coalition use to make the decisions? When we seek to develop a coalition without first establishing a motive, our motive is necessarily reduced to instrumentality. We find ourselves back depending on science as the only rational basis for consensus.

While the need to act cooperatively in addressing environmental problems is undeniable, it cannot be the end of our quest for an adequate environmental ethics. It is not even a satisfactory beginning. As Aldo Leopold wrote, important changes in ethics, and by that he meant important changes in ethical behavior toward land, require internal change (Sand County Almanac, ref?). When we look for sources of internal change, religious conviction is certainly as significant a resource as scientific knowledge. But, can our culture step out of its recent, scientifically dominated, past and accept the legitimacy of religious thought? John Polkinghorne, who is a

physicist and an orthodox Anglican Priest, compares the motivation provided by science and religion in this way:

My belief in quarks and gluons is intellectually satisfying, but it does not affect my life in a radical way. God, on the other hand, is not just there to satisfy our curiosity. The encounter with him will involve the call to obedience as well as the illumination of our minds. Religious knowledge is much more demanding than scientific knowledge. While it requires scrupulous attention to matters of truth, it also calls for the response of commitment to the truth discovered.

A religious response to the environment need not be based on choice between the rationality of scientific knowledge and an irrational 'blind leap' of faith. We need not allow for religion as a necessary evil: a pragmatic means of achieving environmental and social reform. We can turn to theism for a satisfactory explanation of what we know about the universe. It is true that theistic religions are based on faith. But theistic faith, and specifically Biblical faith, has an objective dimension. It is faith in the personal creator God of the universe and because of this it is open to "discussion and verification" (Schaeffer, 1982, V1, p65).