

The UNIVERSITY

THE UNIVERSITY HAS A CENTRAL ROLE IN THE DIRECTION AND fulfillment of the Great Work. It seems appropriate, then, that we give some thought to the difficulties the university has experienced in recent times and the directions it might take in fulfilling its role in the twenty-first century.

The university can be considered as one of the four basic establishments that determine human life in its more significant functioning: the government, the religious traditions, the university, and the commercial-industrial corporations.

All four—the political, religious, intellectual, and economic establishments—are failing in their basic purposes for the same reason. They all presume a radical discontinuity between the nonhuman and the human modes of being, with all the rights and all inherent values given to the human. The other-than-human world is not recognized as having any inherent rights or values. All basic realities and values are identified with human values. The other-than-human modes of being attain their reality and value only through their use by the human. This attitude has brought about a devastating assault on the nonhuman world by the human.

Earlier human traditions experienced a profound intimacy with the natural world in all its living forms and even a deep spiritual exaltation in the religious-spiritual experience of natural phenomena. We have moved from this intimacy of earlier peoples with the natural world to the alienation of modern civilization. If some aesthetic appreciation remains, this seldom has the depth of meaning experienced earlier. Yet this presence to the natural world does occur with extraordinary power and understanding in persons such as Henry David Thoreau and John Muir and in many of the nature writers of the twentieth century, such as Aldo Leopold, Loren Eiseley, Edward Abbey, Edward Hoagland, Brenda Peterson, Barry Lopez, Terry Tempest Williams, Gary Snyder, David Rains Wallace, Annie Dillard, David Suzuki, Farley Mowat, and others too numerous to mention. Yet these writers have no role in forming the basic orientation of the contemporary university.

As now functioning, the university prepares students for their role in extending human dominion over the natural world, not for intimate presence to the natural world. Use of this power in a deleterious manner has devastated the planet. We suddenly discover that we are losing some of our most exalted human experiences that come to us through our participation in the natural world. So awesome is the devastation we are bringing about that we can only conclude that we are caught in a severe cultural disorientation, a disorientation that is sustained intellectually by the university, economically by the corporation, legally by the Constitution, spiritually by religious institutions.

The universities might well consider their own involvement in our present difficulties. Some of our most competent biologists in their comprehensive understanding of the biosystems of the planet, such as E. O. Wilson, Niles Eldredge, and Norman Myers, tell us that no devastation at this level has happened to the life systems of Earth since the termination of the Mesozoic Era some 65 million years ago (Wilson, *Biodiversity*). The present, then, is beyond comparison with other historical changes or a cultural transition, such as that from the classical Mediterranean period to the medieval period or from there

to the Enlightenment in Europe. Even the transition from the Paleolithic to the Neolithic Age in human cultural development cannot be compared to what is happening now. For we are changing not simply the human world, we are changing the chemistry of the planet, even the geological structure and functioning of the planet. We are disturbing the atmosphere, the hydrosphere, and the geosphere, all in a manner that is undoing the work of nature over some hundreds of millions, even billions of years. The genetic strains we have extinguished will never return.

Just what is involved in any full assessment of the disturbance of the planet need not be our concern here. Yet we might mention that in economics, the separation of the human economy from the Earth economy has been disastrous beyond measure. A rising gross human product with a declining gross Earth product is surely a contradiction. To preserve the integrity of the Earth economy should be the first purpose of any human economic program. Yet it would be difficult, until recently, to find a university where this first principle of economics is being taught. It is a strange thing to witness humans moving from suicide, homicide, and genocide to biocide and geocide under the illusion that they are improving the human situation.

Not only is this devastation of the natural world due to an industrial economy that is willing to wreck the entire planet for financial gain or some so-called improvement in the human condition. It is due also to the American Constitution, which guarantees to humans participatory governance, individual freedoms, and rights to own and dispose of property—all with no legal protection for the natural world. The jurisprudence supporting such a constitution is profoundly deficient. It provides no basis for the functioning of the planet as an integral community that would include all its human and other-than-human components. Only a jurisprudence based on concern for an integral Earth community is capable of sustaining a viable planet.

This legal status of rights for natural modes of being is especially needed now when the human has attained such extensive power over the functioning of the planet it possesses. So long as the American

Constitution in its present form and interpretation remains our ultimate referent in legal affairs, any equitable consideration of the natural modes of being of this continent will never be achieved. In the larger community of nations several steps have been taken to remedy this situation. The most impressive of these is the World Charter for Nature passed in the United Nations General Assembly in 1982. This charter states quite clearly that "Every form of life is unique, warranting respect regardless of its worth to man, and, to accord other organisms such recognition, man must be guided by a moral code of action." A similar attitude is expressed in the Earth Charter that is being prepared for presentation to the United Nations in the year 2002. This is a comprehensive document seeking to bring together social justice and sustainable development issues with environmental concerns.

The religious establishments are also seriously deficient in not teaching more effectively that the natural world is our primary revelatory experience. Emphasis on verbal revelation to neglect of the manifestation of the divine in the natural world is to mistake the entire revelatory process. Added to this is the excessive emphasis in Western religious traditions on redemption processes to the neglect of creation processes. This emphasis leaves us unable to benefit religiously from that primary and most profound mode of experiencing the divine in the immediacies of life.

A consciousness of this need for greater religious interest in the ecology issue led to a series of ten conferences held from 1996 to 1999 at Harvard University on the various religious traditions in their relation to the environment. This remarkable series of conferences brought together some eight hundred scholars and practitioners of the world's religions for reflection on the practical and theoretical resources of these traditions for mutually enhancing human-Earth relations. The papers from the conference are being published by Harvard University Press.

I mention economics, jurisprudence, and religion because these are among the subjects that are taught in our colleges and universities. An integral presentation of these subjects has not been given

because of their commitment to the view that the nonhuman world is there fundamentally for the use of humans; whether economically, aesthetically, recreationally, or spiritually. For this reason the universities may be one of the principal supports of the pathology that is so ruinous to the planet.

Because of this basic attitude we consider that the more extensively we use the world about us, the more progress we are making toward some higher state of being. The vision of a transearthly status to be achieved by exploiting the natural world has driven us to ever more violent efforts toward this end. The ideal is to take the greatest possible amount of natural resources, process these resources, put them through the consumer economy as quickly as possible, then on to the waste heap. This we consider as progress—even though the immense accumulation of junk is overwhelming the landscape, saturating the skies, and filling the oceans.

It is important to note, however, four significant movements that have arisen to counter these directions. In the field of economics there is the Society for Ecological Economics established by Herman Daly and Robert Costanza. In jurisprudence is the emergence of the Earth Charter as a basis for recognition of the comprehensive Earth community. In the area of religion the Forum on Religion and Ecology arose from the three-year conference series at Harvard examining the various views of nature in the world's religious traditions. In education the greening of the university around the Tailloires Declaration is encouraging universities and their leaders to embody sustainable practices.

Yet there is still a deeper source of difficulty in the university. It lies in what are called the humanities, or liberal studies, as they are known. These supposedly, as humanist scholars tell us, provide for the expansion of the truly human quality of life. Yet this centering of value so extensively on the human distorts the place and role of the human in the structure and functioning of the universe. We fail to recognize that although the various components of the universe exist

for each other, each exists primarily for the integrity of the universe. The human also, however noble in itself, exists for the integrity of the universe and for the Earth more than these exist for the human. Indeed the human depends upon the larger universe for its existence, its functioning, and its fulfillment. Within the order of the universe the planet Earth provides the efficient, final, material, and formal causes that bring the human into being, support the human in being, and lead the human to fulfillment.

The primacy of the universe over any part of the universe, and of Earth over any component of Earth, has been maintained earlier in our Western religious and cosmological traditions. The sacred community is primarily the universe community, not the human community. Whatever the deficiencies of medieval theological thinking it was clear that the entire universe is the primary value. The human belongs completely within the created order as a part of a more integral whole. As indicated by Thomas Aquinas, the most renowned of medieval theologians, "The order of the universe is the ultimate and noblest perfection in things" (Aquinas, SCG, bk. 2, chap. 46).

Even within the traditional theological context it could be said that what is done by the divine within the created order has for its supreme purpose the resplendence of the whole, not the resplendence of any single component of the whole. Only the whole has any integral meaning. Even the incarnation and redemption as these are presented within the Christian tradition must be considered as primarily for the good of the universe even though these have a certain immediate reference to the human. As was said at the time: "The whole universe together participates in the divine goodness and represents it better than any single being whatsoever" (Aquinas, ST, Q. 47, Art. 1).

Historically the break with this tradition took place at the time of the Great Plague that struck Europe in 1347–1349. This was a traumatic moment for the Western world. The deep aversion to the natural world that resulted has profoundly conditioned the Western cultural tradition ever since.

A definitive stage in this aversion came with René Descartes in the early seventeenth century. In a very real sense he *desouled* the Earth with his division of reality between mind and extension. In this perspective the nonhuman world was seen simply as mechanism. It was, however, a mechanism that could be, and even must be, exploited for human benefit.

For six centuries from the Great Plague and for more than three centuries from the time of Descartes, the aversion of the human from any intimacy with the natural world has increased in Western society, with the exception of the period of Romanticism from the late eighteenth century through the early nineteenth century. Scientists have insisted with ever-greater vehemence until recently that the universe can only be understood as the random action of minute particles with neither direction nor meaning. That we should have resisted such an interpretation given by scientists to their own discoveries is quite proper. That we should have permitted scientists to evoke in us a deep suspicion of the natural world is a matter of extreme regret.

We should have been able to provide our own interpretation of the scientific discoveries. It should have been obvious that our empirical inquiry into the structure and functioning of the universe was revealing a magnificent world beyond anything that we could have thought or dreamed. Any reasonable response is admiration, awe, and even a certain foreboding at the deeper mysteries presented in such an overwhelming reality. We might even consider that the emergent universe, in the sequence of its unfolding, is providing us with a new revelatory experience of whatever is the origin from which it emerges.

For this experience we do not need telescope, microscope, or scientific analysis. Yet with these instruments of intimacy with the universe we do have a new understanding of the sequence of transformations through which the evolutionary process has passed in becoming what we observe in the present. If the religious experience were simply some naive impression of the uninformed it would not have resulted in such intellectual insight, such spiritual exaltation,

such spectacular religious ritual, or in the immense volume of song and poetry and literature and dance that humans have produced.

Few indeed, it seems, are those whose vision of the stars, the ocean, the song and flight of birds, the exquisite form and activities of the various animal species, or the awesome views of the mountains and rivers and valleys does not evoke some sense of an inner spontaneity, a guiding principle, a consciousness, a transmaterial presence manifested throughout the material embodiment, an ordering principle observed in any living being that enables the complexity of the DNA in the genetic process to function in some coherent fashion. While no sense faculty can experience it directly and no equation can be written to express it, our immediate perception tells us that there is a unifying principle in the acorn that enables the complex components of the genetic coding of the oak tree to function as a unity—send down roots, raise the trunk, extend the branches and put forth leaves and fashion its seeds, then to nourish all this by drawing up tons of water and minerals from the Earth and distributing them throughout the entire life system. That such a vast complexity of functioning should have some unifying principle, known traditionally as the “soul” of the organism, is immediately evident to human intelligence.

Since this is not the occasion to argue the case for the psychic or the spirit or the soul dimension of living organisms, I will only indicate that my generation has been an autistic generation in its inability to establish any intimate rapport with the natural world. This mental deficiency has brought us into the terminal phase of the Cenozoic Era in the geobiological story of Earth development. Our present need is to know just how to move out of this alienation of the human into a more viable mode of presence to the natural world.

Here I propose that the religions are too pious, the corporations too plundering, the government too subservient to provide any adequate remedy. The universities, however, should have the insight and the freedom to provide the guidance needed by the human

community. The universities should also have the critical capacity, the influence over the other professions and the other activities of society. In a special manner the universities have the contact with the younger generation needed to reorient the human community toward a greater awareness that the human exists, survives, and becomes whole only within the single great community of the planet Earth.

If the central pathology that has led to the termination of the Cenozoic is the radical discontinuity established between the human and the nonhuman, then the renewal of life on the planet must be based on the continuity between the human and the other than human as a single integral community. Once this continuity is recognized and accepted, then we will have fulfilled the basic condition that will enable the human to become present to the Earth in a mutually enhancing manner.

In this new context every component of the Earth community would have its rights in accord with the proper mode of its being and its functional role. In each case the basic rights would be for habitat and the opportunity of each being to fulfill its role in the natural systems to which it belongs. Humans would be obliged to respect these rights. If such concerns were not under discussion in the eighteenth century when the American Constitution was being written, they must be the central issue in any present discussion of the legal context of our society. The critical mission of the university law schools is to address these issues in a depth that has not yet manifested. A more expanded basis for jurisprudence seems to be indicated. A beginning has been made by Justice William O. Douglas in *A Wilderness Bill of Rights*, published as long ago as 1965. There we find a remarkable affirmation of the need to establish legal status for the natural world.

Even beyond the Earth, the sense of community would extend throughout the entire universe seen as a single coherent community that has emerged into being with a total dependence of each component on all the others. Indeed, we need to think of the universe as the supreme norm of reality and value, with all component members of

the universe participating in this context, each in accord with its own proper role.

In this setting the universe would become the primary university, just as the universe is the primary lawgiver, the primary economic corporation, the primary scientist, the primary technologist, the primary healer, the primary revelation of the divine, the primary artist, the primary teacher, and indeed the primary source, model, and ultimate destiny in all earthly affairs. Throughout our human intellectual development we are totally dependent on what the universe communicates to us in an earlier stage through immediate observation and in this later stage through all those instruments of observation that we have devised. Through these instruments of observation we enter profoundly into the most hidden realms of phenomenal existence itself while at the same time these hidden realms enter into our own minds. It is a reciprocal relationship. We are touched by what we touch. We are shaped by what we shape. We are enhanced by what we enhance.

The human university would be the context in which the universe reflects on itself in human intelligence and communicates itself to the human community. The university would have the universe as its originating, validating, and unifying referent. Since the universe is an emergent reality the universe would be understood primarily through its story. Education at all levels would be understood as knowing the universe story and the human role in the story. The basic course in any college or university would be the story of the universe.

This story can fulfill its role only if the universe is understood as having a psychic-spiritual as well as a physical-material aspect from the beginning. This should not be difficult since we know what something is by its appearance and by what it does. We know a mockingbird by the variety of its songs, by its size, by the slate gray color of its feathers and by the white patch on its wings and the white feathers in its tail. Since the universe brings us into being with all our knowledge and our artistic and cultural achievements, then the universe must be an intellect-producing, aesthetic-producing, and intimacy-producing process.

These qualities that we identify with the human are also qualities that we observe throughout the natural world. Even at the level of the elements we observe self-organizing capacities, also the capacity for intimate relationships. These reveal astounding psychic abilities. These are so impressive that we must consider that modes of consciousness exist throughout the universe in a vast number of qualitatively diverse manifestations. Above all we discover that every being has its own spontaneities that arise from the depths of its own being. These spontaneities express the inner value of each being in such a manner that we must say of the universe that it is a communion of subjects, not a collection of objects.

Precisely in this intimate relationship with the entire universe we overcome the mental fixation of our times expressed in the radical division we make between the human and the other-than-human. This fixation that I have described as an unfeeling relation of the human to the natural world is healed in its deepest roots as soon as we perceive that the entire universe is composed of subjects to be communed with, not primarily of objects to be exploited. This communion experience is, I believe, universal. It can be observed in the immediate reaction of almost anyone who simply looks at the ocean at dawn or sunset or at the heavens at night with all the stars ablaze, or who enters a wilderness area with its foreboding as well as its entrancing aspects.

In every phase of our imaginative, aesthetic, and emotional lives we are profoundly dependent on this larger context of the surrounding world. There is no inner life without outer experience. The tragedy in the elimination of the primordial forests is not the economic but the soul-loss that is involved. For we are depriving our imagination, our emotions, and even our intellect of that overwhelming experience communicated by the wilderness. For children to live only in contact with concrete and steel and wires and wheels and machines and computers and plastics, to seldom experience any primordial reality or even to see the stars at night, is a soul deprivation that diminishes the deepest of their human experiences.

Here I propose that the universities need to teach the story of the universe as this is now available to us. For the universe story is our own story. We cannot know ourselves in any adequate manner except through an account of the transformations of the universe and of the planet Earth through which we came into being. This new story of the universe is our personal story as well as our community story.

We have moved from a sense of time in which the universe revolves simply in ever-renewing seasonal cycles into a universe that has emerged into being through a sequence of irreversible transformations, even while it is also revolving in an ever-renewing sequence of seasonal changes. Our greatest single need is to accept this story of the universe as we now know this as our sacred story. It could be considered as the most magnificent of all creation stories. This story does not diminish, it rather enhances the earlier story that we have through the Book of Genesis. That story was related to the ancient Mesopotamian stories of the universe. Our new story is attained in a more empirical manner and with new instruments of observation.

We now know ourselves as genetically related to every other living being in the universe. Only through this story are we able in any integral manner to overcome our alienation from the natural world about us. We are finally able to understand just why our own well-being is dependent on the well-being of Earth. Yet even when we know this with such depth of understanding we still find it difficult to rethink economics, law, religion, and education within this scientific context. Our universities seem caught in a fixation from which they cannot escape even when these prior cultural forms are proving unable to prevent the devastation of the planet.

Such fixation on our existing cultural forms remains, apparently, the only context for survival that the universities can appreciate. The difficulty is not exactly in the cultural forms but in the inability to expand understanding of how these cultural forms function in this new context. The difficulty is also in a misunderstanding or excessive emphasis on some phases of these cultural forms—such as, for

instance, the religious emphasis on redemption to the neglect of creation. So too our inability to understand that these prior cultural forms will enter a more expansive phase of their existence within this new context than they ever had in previous times.

The urgency of moving into the new situation would not be so great if the devastation of the planet were not so overwhelming. As long as we live and have our values and do our educating within this prior context we will not be able to establish a deeper understanding with those who have.

While our universities have gone through many transitions since they first came into being in the early medieval period, they have never experienced anything like the transition that is being asked of them just now. The difficulty cannot be resolved simply by establishing a course or a program in ecology, for ecology is not a course or a program. Rather it is the foundation of all courses, all programs, and all professions because ecology is a functional cosmology. Ecology is not a part of medicine; medicine is an extension of ecology. Ecology is not a part of law; law is an extension of ecology. So too, in their own way, the same can be said of economics and even the humanities.

There have been stages when the Western university was dominated by theology as the queen of the sciences. There have been periods when the universities were dominated by humanistic concerns. There have been times when the university was dominated by mechanistic science, engineering, or business. The new situation requires that the university find its primary concern in a functional cosmology. Such a functional cosmology can exist, however, only within a university where the spirit dimension of the universe as well as its physical dimension is recognized.

The transformation of human life indicated in this transition from the Cenozoic to the Ecozoic Era affects our sense of reality and values at such a profound level that it can be compared only to the great classical religious movements of the past. It affects our perception of the origin and meaning of existence itself. It might possibly be considered

as a metareligious movement since it involves not simply a single segment of the human community but the entire human community. Even beyond the human order, the entire geobiological order of the planet is involved.

At this opening period of the third millennium of our times there are choices to be made in every phase of human life. The immediate decision is whether any of our basic institutions—government, religious establishments, universities, or corporations—can mitigate their attachment to the terminal phase of the Cenozoic, or whether any one of these or all these might make this change in its full order of magnitude.

The universities must decide whether they will continue training persons for temporary survival in the declining Cenozoic Era or whether they will begin educating students for the emerging Ecozoic. Already the planet is so damaged and the future so challenged by its rising human population that the terms of survival will be severe beyond anything we have known in the past. We have not thought clearly or behaved properly in the twentieth century. We are now caught in a mind-tormenting ambivalence. We have such vast understanding of the universe and how it functions, and yet we manifest such inability to use this knowledge beneficially either for ourselves or for any other mode of earthly being. While this is not the time for continued denial by the universities or for attributing blame to the universities, it is the time for universities to rethink themselves and what they are doing.