

**The Eco-Theology Of Henryk Skolimowski:  
The Building of a New Religion**

**By  
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**A Thesis  
Submitted To The Faculty Of Graduate Studies  
In Partial Fulfilment Of The Requirements  
For The Degree Of**

**MASTERS OF ARTS**

**Department of Religious Studies  
University Of Manitoba  
Winnipeg, Manitoba**

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BY

DEAN RICHERT

A Thesis submitted to the Faculty of Graduate Studies of the University of Manitoba  
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## Introduction

As this planet enters into the twenty first century the so called "first world" nations are calling for greater competition, a decrease in spending by governments in areas of social concern and seek to idealize the continuing struggle by the individual to hoard capital, i.e., to increase their personal power over and against the "other" through the private ownership of capital. This response to dwindling resources and other environmental pressures will, in my mind, increase the insecurity of the individual, cultures, society and the planet itself. What Skolimowski sets out for us is a different alternative. He asks humanity to perceive reality in a different way. He puts forward a religious alternative that relies on the rationally compassionate person who perceives the radical interdependence between herself and the other.

Skolimowski was born in Poland before World War II. It was during this war that he felt he must "give witness to the most noble part of the human condition" (1984: 4). This need to 'give witness' to what is noble within humanity and life in a society that seems to have rejected life can be found throughout his writings.

In the early 1950's Skolimowski wanted to study philosophy but because of the 'invasion' of Marxism and Marxist rhetoric within Poland he decided to study

engineering at the Warsaw Institute of Technology. His love for philosophy remained and he became drawn to it through a man by the name of Kotarbinski, an analytical philosopher.

After attaining a M.A. in Logic, while studying with Kotarbinski, Skolimowski moved to Oxford to continue his studies. It was there that he understood the inadequacies of analytical philosophy. He did so with the help of Popper. Popper's philosophy liberated him from the confines of analytical philosophy. He also, eventually, felt it necessary to move beyond Popper and his 'falsification theory'. "One had to go on to develop a new philosophy, an alternate cosmology" (1984: 10).

What Skolimowski intends to do with this new philosophy is to seek meaning through the elimination of the self-delusionment, half truths, and lies of modern society. The problems lie within the visions humanity creates, its philosophies. Thus, Skolimowski wishes to build and implement a new philosophy. It is a philosophy that tries to understand the individual within a larger framework and, therefore, to answer the question of who that individual is. Skolimowski's interpretation of the individual is based on his interpretation of evolution. Evolution is a creative force that continues to create both complexity (individuation) and interdependence but not homogeneity. This complexity is necessary for life to exist. It is the diversity of species that allows for the stability within evolution.

It is homogeneity that brings about instability. As Skolimowski states wholism is not a descriptive term but a way of being. The interdependence of species is the dialogue that brings forth an understanding of reality as meaningful. There is a dynamic dialogue that must become real in order for each of us to understand ourselves and the other as fundamentally connected and as unique. The individual is not an isolated measuring stick of all that exists but nor is the individual meaningless, to be subsumed into the homogeneous whole. It would seem that the question remains to be answered, who am I?

I have written this to answer that question and those related to it, not in an absolute sense but in a way that will, I hope, move the dialogue from abusive to life-giving. This movement from an abusive dialogue to a life-giving dialogue is a movement of perception, understanding, and, therefore, a shift in consciousness.

**CHAPTER ONE**

## EVOLUTION AND COSMOLOGY

For Bergson . . . evolution is an exquisitely creative process. This was the first step in liberating evolution... Teilhard made another step, as he showed creative evolution to be all-pervading and leading from matter to spirit.

Skolimowski, 1988: 126

We have to have the courage to ask what is the meaning of the universe. What it takes delight in and what it abhors. The universe does not delight in just 'being'. It delights in life. The universe does not delight in life. It delights in consciousness. The universe does not delight in consciousness. It delights in love. It delights in us reaching the orbit of God. When the primordial explosion of light becomes New Light in the shape of God, then the universe truly delights.

Skolimowski, 1988: 127

Skolimowski's Eco-philosophy is built upon a certain conception of evolution. Evolution pervades all of his writing and, therefore, is central to any understanding of Skolimowski. It is not just a scientific theory. Evolution is a way of understanding, interpreting, and changing reality. "Evolution is an aspect of our cosmology" (Skolimowski, 1975: 79). Evolution is the way in which Skolimowski perceives reality. It is a reflection of how he views himself, the world, and the universe. The validity of evolution is found within a certain world view (Weltanschauung). Truth assumes a

valid framework for assessment (1975: 79). All understandings must be validated within a certain world view. Philosophically speaking, evolution is that framework.

Skolimowski goes on to state that evolution is a moral category (1975: 80). It is a moral category because of its ability to answer questions of purpose and meaning. Evolution answers these questions not in an absolute way but in a meaningful way, in an eschatological sense. If evolution is the central pillar of Skolimowski's Eco-theology then it must attempt to answer questions of the meaning and purpose of life, it must not shy away from such questions. Evolution, for Skolimowski, connects the physical, biological, and the spiritual. It places them together within a wider framework. Wicken points out that "all meaning depends on some kind of part whole relationship...it must be one in which the parts are invested with relational identities by their participation in a more complex reality" (1989: 159).

Any thorough-going metaphysical reconstruction must find some answers to the deepest problems that have always fascinated and troubled the human mind - and there are the problems of human destiny, a dilemma which is ultimately religious in nature.

(Skolimowski, 1988: 125)

Once evolution has been seen to be a moral category and as the central pillar to a cosmology, there can now be nothing prior to "the whole of evolution" for the 'whole' has become the valid framework (Skolimowski, 1981: 73). This new cosmology precipitates a new understanding of the universe, of humans, and of values. This new cosmology Skolimowski

calls Evolutionary Telos. "We are approaching a new cycle, or to put it into more fashionable terms, a new paradigm of understanding which, when it is complete, will render us a new cosmos" (Skolimowski, 1986: 465). The mind forms a new understanding of the cosmos. The universe and the mind interact in a meaningful way for there is no universe independent of us. This chapter is not about epistemology, but cosmology and evolution, the Evolutionary telos. But any cosmology must take into account the fundamental role of the mind and, therefore, epistemology. When the "complexity of the ontological order (the order of reality) becomes unmanageable, the mind 'simplifies' reality by imposing on it a new order" (Skolimowski, 1986: 463). This new simplicity must address the spiritual questions, the questions of meaning. This is a new cosmology, a new perspective and thus a fundamental change in perception.

#### The Anthropic Principle

I think we are now in a period where we can afford to acknowledge simultaneously the divinity of man and man's essential freedom. Moreover, we can claim that we acquire freedom by increasing the spirituality within us ... we actualize our humanity by becoming sacred in the process of evolution.

(Skolimowski, 1978: 38)

It is the evolutionary process of matter becoming divine that places humans as the crowning achievement of the evolutionary process. Humans have the ability to manifest the sacred. "The universe is as it is because it is meant to

generate intelligent life ... the universe is home for man" (Skolimowski, 1989: 6). Teilhard states that the dichotomy between humans and nature is resolved in the movement of evolution. Humans are both physical and transcendent beings (1959: 169).

The process of matter becoming sacred and the universe which is considered a home for humankind are closely connected. The purpose of the universe is to create spiritual matter. In order for the universe to do so the universe must create life, consciousness, and then self consciousness. Humans are self conscious beings. This is not to be taken as a statement of arrogance or of dominance. This uniqueness is not the result of 20th century humans but that of evolution, ecological evolution.

The actualization of freedom and liberation comes about not in detachment from this evolutionary process of becoming sacred but in that evolutionary task. The cosmos and the human being are not antithetical but rather the cosmos is as it is because humans are in it. Thus Skolimowski writes, "the problem of alienation is not predominantly a social one, as Marx envisaged. It is predominantly a conceptual and cosmological one" (Skolimowski, 1985: 64). Humans belong, the universe is their home. The universe that is understood as home is not devoid of meaning and value but is rather full of meaning. Kohak wants to recover such a perception of the universe so that humans might again experience a living,

purposeful nature. A "*physis* which humans can recognize as kin and in which they can feel at home" (1984: 12).

Conflict with the cosmos, nature, the earth has arisen because of a pathological world view. In order to bridge this chasm and regain the perception that the world is home for humans Skolimowski has developed this evolutionary cosmology in which "the moral law is a part of the cosmic law; the human order is a part of the cosmic order; human justice is a part of the universal justice, the human meaning is a part of the universal meaning" (Skolimowski, 1985: 65). This understanding, that humans are apart of the cosmic process, creates a unity between humanity and nature. This is the substance of the statement made by the World Commission on Environment and Development (WCED).

Yet it is not enough to broaden the range of economic variables taken into account. Sustainability requires views of human needs and well-being that incorporate such non-economic variables as education and health enjoyed for their own sake, clean air and water, and the protection of natural beauty.

(1987: 53)

Skolimowski is trying to establish a new cosmology based on evolution. It is a cosmology that is not only able to give a constructive answer to the environmental destruction of our day but also bring humans back into a unity with the universe. Humanity's uniqueness stems not from their separation from the universe but is found in relation to this new cosmology. Humans are the crowning achievement of the universe (Skolimowski, 1981: 74). Because humans are

embedded in the "natural geometry of life" (Skolimowski, 1989: 3) there is also a moral imperative. In a very simplistic understanding it demands from us this, that we become the custodians of the whole of evolution.

Our uniqueness does not stem from being separated from all nor from being the measure of all in our own right, as traditional humanists have maintained, but from beholding the most precious characteristics worked out by life at large, from being the custodians of the treasures of evolution.

(Skolimowski, 1981: 75)

With this unity comes an intuitive bond with the universe, with nature. This intuitive response to nature is there because humans were all, at one time, "nursed and conditioned, shaped and determined by natural geometry" (Skolimowski, 1989: 3). Within this natural geometry there exists the process by which and through which all life has been formed.

*To dissolve in the primordial matrix of life - this is sanity.*

*To enter the communion with the shapes which spell out The organic life - this is silent joy.*

*To lose oneself in the forms soaked in the substance of life - this is a fundamental renewal.*

(Skolimowski, 1989: 3)

This new perspective enables us to 'see' the responsibility that lies within it. Responsibility remains a moral category because no description of an ecosystem can make one responsible for it (Skolimowski, 1984: 47). The development of a perception of unity between nature and humanity is of vital importance. A dichotomy between humans

and nature "is not only false but dangerously misleading" (McHale & Mchale, 1978: 116).

### The New Imperative

Human values, within this evolutionary cosmology, are evolution centered. Skolimowski rightly warns us that one needs to be careful when one states that values are evolution centered because much will depend on the meaning attached to the term evolution (1981: 76). Bookchin, for example, has argued that natural evolution is marked by cooperation, purpose, creativity, and diversity as opposed to the conception of evolution as cruel, blind, and dominating (as interviewed by Schulman, 1985). Skolimowski has argued that humans are a product of and have also been a participatory element within the process of evolution. If he conceives evolution "as a humanization and spiritualization of primordial matters, then the meaning of evolution in human terms spells out the meaning of human values" (1981: 76). In situating human values within evolution it means that our politics, our tactics for living, our values must be situated within life at large (Skolimowski, 1977: 321).

This knowledge is essential for survival because man must bring himself into conformity with nature if he wants to exist as part of nature's unity, and must fit his demands to nature's availability.

(Skolimowski, 1977: 322)

One begins to understand that one's conception of the cosmos (cosmology), the concept of knowledge (epistemology and methodology), and the code of behaviour (ethics and

tactics for living) are linked together, they support and justify each other (Skolimowski, 1977: 322). Thus, when one spells out a new cosmology one is also giving rise to a new epistemology, a new ethical system, and new tactics for living.

### A Pathological Cosmology

The cosmology, which now governs the way in which we think and act, has as its starting point, if one can call it that, two interdependent conceptions. There is the conception of a reductionist science and a reductionist concept of progress (Skolimowski, 1974: 248). What this new cosmology is trying to replace is this dominant cosmology.

From its inception science has been much more than the pursuit of truth. The burning of Giordano Bruno in 1600 and the trial of Galileo in 1633 mark the appearance of science as an ideology...

(Skolimowski, 1972 :435)

Modern science, in its inception, was idolized as the great liberator. It would be the ideology that would liberate us from an oppressive, a decaying, dogmatic civilization. The 'Holy Inquisition' was aware of this, that science would undercut the Church's own ideology and thus its power. So

when Galileo was on trial, science was on trial ... But one may imagine that science could be put on trial for quite a different reason and in quite different circumstances. Might it not be the case that in the course of time, science itself became a bondage, restraining and suffocating us as people, as a civilization?

(Skolimowski, 1972: 435)

Brecht, in his notes prefacing his play *The Life Of Galileo*, states that Galileo "enriched astronomy and physics by simultaneously robbing them of their social importance" (1963: 9-10). To establish his point Brecht uses the example of the atomic bomb. It is both a technical and social phenomenon. It is also "the classical end-product of [Galileo's] contribution and his failure to society" (1963: 10). The implication is that Galileo's position within the trial has robbed science of its ethical base. In this understanding the question asked by Skolimowski is certainly a useful one for the modern age. It is useful if for no other reason than to reassess the role and the purpose of science within society. Science and progress are linked together since humans have pursued knowledge. Skolimowski states that the most important thing to remember about science is that in order for it to exist it must grow. If it stops growing it would not be science. The end of scientific progress is the end of science (1967: 64). Progress is imbedded within the structure of science.

Francis Bacon was one of the principal thinkers to shift the concept of progress within knowledge from that of wisdom "to the instrumental conception of knowledge as power" (Skolimowski, 1974: 54). This view is echoed by Wilkinson where he states that Bacon wanted to establish the progression of gaining knowledge from nature in order to have power over nature (1980: 133).

Sir I. Newton, himself, was not only a physicist but also a theologian. From all of his writing only those of the empiricist tradition have been selected. What was considered important were those writings which supported the empiricist tradition. In 1687 Newton's *Philosophiae naturalis principia mathematica* was published. This mechanistic model of reality took hold in the 18th century. The universe was perceived, metaphorically, as a clock. The universe was perceived as a machine. Not only was the universe conceptualized as a machine but humans were also conceptualized as machines. This was expressed in La Mettrie's treatise *L'Homme machine* in 1747 (Skolimowski, 1974: 55). Kohak is right, I think, in suggesting that in the preoccupation with seeing the universe and all therein as machines there is the danger of losing something very important. For Kohak it is the ability to see the universe and all therein as moral (1984: x).

Skolimowski recognizes this movement of science from the pursuit of knowledge to a reduced conception of knowledge as power in mechanized, materialistic terms. The cosmos, humans, and all that exists is to be thought of as material, mechanistic, and quantifiable.

This conception of reality as purely physical, that the cosmos is quantifiable and is a machine and only a machine, prompted a certain type of technology. This type of technology tried to liberate humanity by producing goods that contribute to our material standard of living. Within a

reduced cosmology this is the only justifiable liberation. For Skolimowski this is only true if one believes it to be true, for as stated earlier one's cosmology, epistemology, methodology and ethics are linked together. In a mechanized cosmos how else can one define progress except in a material, quantifiable way. This reductionist way of conceptualizing science is not the only way of understanding science but it is this dogmatic understanding that still dominates our conception of reality. For Skolimowski there are three dogmas that are fundamental in maintaining this cosmological world view, this type of science. They are the dogma of reason, freedom, and egalitarianism.

The dogma of reason is nothing else but the adherence to a narrow mechanistic philosophy which confines the world to the universe of physics. Within this restricted universe reason has been made a cutting edge and a crushing tool which cuts (or crushes) everything to fit it into the mechanistic paradigm of the world.

(Skolimowski, 1978: 34)

There are a number of further assumptions that lie behind this type of reason. At this point in our history economic security has become the dominant form of security which we humans seek. When human security no longer resides in a belief of God the anchor for humanity's security became economic. "Thus we moved the center of our psychological, existential, and our spiritual security into the economic realm" (Skolimowski, 1978: 35). The WCED report links security and insecurity to environmental stress.

"Environmental stress is both a cause and an effect of political tension and military conflict" (1987: 290). The report goes on to state that the relationship between environmental stress, poverty, and security are effected by development policies, international economic trends, inequality within societies, and population pressures (1987: 290). The reduction of security to mere economic growth has not decreased insecurity but has caused an increase in insecurity. Further to the understanding that security is purely economic in nature is the assumption that reality is 'perfectly' knowable. There is no mystery, no creative act of transcendence, as a matter of fact there is no transcendence at all. There can be nothing beyond the purely physical reality which lies all around us and the quantitative measures for this mechanistic world (Skolimowski, 1978: 35).

By the 19th century humans had become consumerist in their behavioural orientation and pragmatic and technical in terms of their thinking. "What we had gained in precision and efficiency we seemed to have lost in vision; and in the process we have curiously thinned the substance of our reason" (Skolimowski, 1980: 157). In traditional cultures it was and to some extent still is the society that governs the economics, that gives direction and meaning to economics. In Western culture it is economics that has overshadowed culture, "in a sense eaten it up, and become itself the

cultural paradigm" (Skolimowski, 1980: 157). Meaning and reality have become a mere illusion of their former selves. The ideology of consumerism has become our eschatology. Within this ideology humans have become aggressive, selfish, utilitarian and individualistic. With the domain of our eschatology redefined in terms of material progress, otherwise known as consumerism, there can be no meaning without such fulfillment. Therefore, when our economic growth is in jeopardy we are willing to do whatever is necessary to continue growth, and war is one of these possibilities. Let us not pretend that such a perceived need as the maximization of profit does not also need a narrow view of efficiency. In the universe of reduced reason, a reason reduced to rationalizing economic growth, efficiency must be reduced to "the criteria of profit" (Skolimowski, 1980: 159) which, of course, is to ultimately maximize profit. Let us also not be so naive as to assume that this vision had no influence on those thinkers of the 19th century. "Western economic systems may be the only examples of pure social Darwinism in action" (Skolimowski, 1980: 159).

In Skolimowski's understanding of current economic structures, it is these economic structures that are at the center of our consciousness determining all the other areas of existence. While Skolimowski would maintain that such a statement may be too simplistic some basic facts would remain,

namely, that both capitalism and marxism see reality in basically economic and physical terms; both treat nature and reason in a mechanistic fashion; both deny the transcendental destiny of man; and paradoxically end up competing with each other in terms of industrial efficiency - the pursuit of which abysmally narrows man's stature and tragically impoverishes his existential universe.

Our economic thinking is as good as our cosmology - which originates our economics. Our cosmology is about the gods we are prepared to worship. We have worshiped the God Economics and it has given us material plenty. But he is unable to give us the meaning of life. Hence our existential drama. And hence the drama of our rationality which, in the cause of a mistaken logos, has shrunk our being.

(1980: 160)

Wisner and Pell, two economic development workers living in Ontario, contend that our economic system is based on consumption and waste. It is a 'disposal' society. This type of society not only threatens the world's resources it also makes it more difficult to be satisfied (1981: 39). Physical survival is necessary but meaningless when considered in isolation. Schumacher states that economics has moved to the center of public concern where economic performance, growth, and expansion have become an "obsession" of all modern societies (1973: 34). The movement to maximize profit is fragmentary in nature for it fails to take into account other real aspects of life.

As I have stated above the dominant cosmology is that of a mechanized cosmos which has developed a quantitative science and technology. Skolimowski addresses this underlying philosophy that has "shrunk our being", which has caused this

cosmological alienation.

In Skolimowski's article *Philosophy and Values in the Model for Peace*, he wants to

attempt to show that specific philosophies, which we accepted and pursued as a society and culture (that is western culture), have created a value vacuum among our midst; and also that they have created the condition of unenlightenment that makes our minds dim, and does not enable us to distinguish with sufficient clarity what is what; specifically what are our main responsibilities vis a vis the human family, vis a vis other beings, and last but not least, vis a vis ourselves.

(Skolimowski, 1985: 60)

The dominant philosophy since the 17th century has been empiricism of which David Hume, perhaps, gives the most succinct expression in *An Inquiry Concerning Human Understanding* (Skolimowski, 1985: 61). He states that if any writing does not contain "absolute reasoning concerning quantity or number" and if it does not contain any experimental reasoning concerning matter of fact existence, then "commit it to the flames". Within this understanding there is no room for that which expresses any form of aesthetics, art, poetry, fiction, or ethics. There is no room for the human spirit.

Empiricism gave rise to the positions of Comte (beginning in the 19th century), Mach (end of the 19th century), and logical positivism of the 20th century (these positivists sometime call themselves logical empiricists like Bertrand Russel) (Skolimowski, 1985: 61). In the 1920's Vienna became the center for a new philosophy that was to be called

analytical. This group of Vienna philosophers became known as the Vienna Circle. They were mainly scientists by profession who engaged in the search for truth by working to reduce all knowledge and all meaningful propositions of human language to logical, physical propositions. They used observation to determine what was truthful or meaningful and, therefore, they considered only "empirically verifiable statements as meaningful; all others are meaningless, save tautologies" (Skolimowski, 1985: 61). This reduction of meaning, states Skolimowski, has led to a particular "numbness of value", a moral vacuum, where intrinsic values are no longer of concern. Kohak, like Skolimowski, seeks to "rediscover that moral sense of life, too easily lost amid the seeming absurdity of our artifacts" (1984: xiii). It is consumerism that is the substitute for this numbness. Some might argue that the fear associated with the meaninglessness of existence is distinct from the problem of knowledge which empiricism so succinctly expressed. Skolimowski, on the other hand, wants to show that the two are connected.

The values indispensable for a meaningful life and for a meaningful peace went overboard as the result of our pursuit of a philosophy which adulates objectivity, is entranced with the endless analysis of language and forgets the wholeness of the human being; indeed forgets the human being himself.

(Skolimowski, 1985: 62)

Another philosophy that Skolimowski wants to address is the philosophy of Feasibility. A philosophy must not only articulate a reunification of the human and the cosmos but

also implement such a reunification. Yet such an implementation can be simply reduced to what is feasible. So goes the statement 'the vision is great but lets get back to reality'. There is a hidden value agenda that lies within the implementation process, the question of 'how to'. Often the vision is subordinated to feasibility. This philosophy of feasibility is, to a large extent, dictated by pragmatism, i.e., "what is possible and implementable immediately, with the existing tools, with existing possibilities" (Skolimowski, 1985: 65). This philosophy is often the servant of the status quo for it often wishes to change nothing.

A brief reflection will inform us that if we always tried to do what is feasible, practical and realistic, we would still be dwelling in caves, or perhaps even being amoebas ...

After what we have said, we immediately want to add that we do need policies and strategies that are implementable. We don't want to be Don Quixotes struggling with windmills. On the other hand, we don't want to be idiot technicians manipulated by ever new imperatives of advancing technology.

(Skolimowski, 1985: 65)

These ever new imperatives of advancing technology are not only associated with a myopic culture but a myopic consciousness. In the article *Ecological Consciousness as the Next Stage of Evolution* Skolimowski begins with a brief history of the development of consciousness over the last six centuries through which he traces the movement from a religious consciousness to a technological consciousness. At the beginning of the article he makes two important points. The first is that human consciousness is highly structured,

i.e., "we do not have a consciousness as such, but rather we live and function within specific modes of consciousness. These modes are culture bound on one level, and species-bound on another level" (Skolimowski, 1989: 1). This is important because he wants to make it clear that consciousness is not some "shapeless cloud" but rather it is highly structured and is influenced by the cultures one encounters. Skolimowski also makes an important statement in that consciousness is species bound. This leads to the second point, that "every form of consciousness is connected with, and a mirror image of, a cosmology by which it is engendered and which it articulates" (Skolimowski, 1989: 1). This is important because it draws a direct line between the structure of consciousness and the way one views reality. Consciousness and cosmology support and co-define each other. When Skolimowski states that "technology has become a part of the being of humans" (1974: 72), he is not stating that there is a direct association between being human and, for example, a chain saw, but rather it refers to the direction civilization will take and thus the direction technology will take as a whole, as a total phenomenon, and as related to the way humans think.

The mechanization of the cosmos did indeed affect the way humans think. This new cosmology requires a narrow vision of reason, of knowledge (as objective and pragmatic), the quantification of all phenomena, and the elimination of the

sacred (Skolimowski, 1989: 2). Quantification demands isolation, detachment, and alienation which can only lead to conceptual alienation which in turn leads to psychological alienation. With cosmological mechanization comes the "worship of physical power, indeed a sense of intoxication with power, and an obsession with it" (Skolimowski, 1989: 2). Prigogine and Stengers echo these same sentiments when they say that

science (classical) leads to a tragic metaphysical choice. Man has to choose between the reassuring but irrational temptation to seek in nature a guarantee of human values, or a sign pointing to a fundamental corellatedness, and fidelity to a rationality that isolates him from a silent world.

The echoes of another leitmotiv - domination - mingle with that of disenchantment...a world liable to control and manipulation...A man, a stranger to the world, sets himself up as the master.

(1984: 32)

From this conception arises a consciousness that thinks in terms of control and manipulation. This is exactly what 20th century technology is. To think about technology is to think in terms of control and manipulation, efficiency, and assertiveness. One does not think about how to love. "Technology is a vision of reality - not the use of tools" (Skolimowski, 1989: 2). What provides meaning in our society is not a sense of what is good, right, or just but rather consumerism. There is a perceived need for economic growth on the personal, corporate, governmental, and societal level. "After we have emptied the universe of the sacred, of the

spiritual, of intrinsic values ... what has emerged as a new eschatology is the drunken pursuit of power and of stupefying consumption" (Skolimowski, 1989: 2). It is such an eschatology that has alienated humans from who they are, from their essence, and deprived them of their humanity. The debate over the nature of technology is a debate over the future of humanity, for any philosophy of technology must offer humanity new tactics for living on this earth. This will demand a humanistic technology. Technology must be subject to the humanistic imperative. It is the vision of a new cosmology, of a new reality that will change the nature of technology. The ecological crisis is trying to be solved within the conceptual framework of 19th century science and technology and this will not suffice. This crisis will demand that humans step outside this antiquated cosmology, for it will demand of us a new set of conceptual structures, a new view of knowledge, and a new consciousness.

The current conceptual structure is complex and Skolimowski tries to simplify this structure. I think his simplification is adequate for us to see the relationships and types of relationships within this structure.

It is not sufficient to decorate the present quantitative system with some intrinsic human values by merely adding on human considerations here and there. As long as the quantitative instrumental basis remains unchanged and channels its imperative via descriptive science, via industrial profit-efficiency-oriented technology, via economics geared to continuous growth and free enterprise, the order of things will remain the same. (Skolimowski, 1975: 75)

A new cosmology must conceive of knowledge as the ability to understand and to integrate humanity and the world. This cosmology must also conceive of progress as "the enhancement of the diversity of the human world which is mainly accomplished by the enlargement of his spirituality" (Skolimowski, 1975: 76).

Why is there a universe? So that life might evolve. What Skolimowski calls for is an evolution centered cosmology. For it is a cosmology such as this that will enable us to address the problems of modern society. This cosmology can, so Skolimowski believes, address the central questions of humanity, i.e., the questions of purpose and meaning. Current philosophies (empiricist, analytical, scientific) of Western culture have failed to live up to this task. They have failed to be life-oriented. This new cosmology is connected to human values, to nature, to life.

Evolution is a framework, it is an ideology, and a cosmology. In the eyes of Skolimowski, it is the continual emergence of new 'windows' or sensitivities on the world and reality. A 'window' humans shape for the good through self

perfectibility, through transcendence and thus by becoming sacred. This quest for self perfectibility is a meaningful one, it is a humanizing one, and it is a spiritual one. In this context being and becoming need to be held together in "dynamic harmony" (Skolimowski, 1984: 92). To understand the emergence of being within becoming Skolimowski turns to Ilya Prigogine and his understanding of dissipative structures (physical structures that are far from equilibrium). From this Skolimowski develops the concept of evolutionary stress. "Under evolutionary stress, organisms jump to a new higher order or level of organization. Evolution is not a gradual process" (Skolimowski, 1984: 119). "Man is an evolving creature, is a conscious building animal, a mind-making animal, a sensitivity generating animal" (Skolimowski, 1984: 137).

Let us be aware that evolution conceived of as generating new sensitivities, as a process by which humans become sacred, is a painful process because of the pain of 'leaving'. The current cosmology might be easy for some to leave behind but for the majority in the west it will be a painful experience. There is no doubt that a conceptual and a practical reconstruction will be painful for all. But these structures are to be left for a reason, so that the process of transcendence may continue.

Transcendence is the key to the understanding of the dialectics and harmony of evolution; thus evolution holds the key to understanding ourselves. To be, in an evolutionary sense, is to continually transcend.  
(Skolimowski, 1984: 43)

### Evolution and the Sacred

It is only when humans come to the universe with an attitude of reverence, seeing the universe as sacred, that humans become sacred. There is a fundamental participation of consciousness in the formation of reality. Skolimowski echoes Mircea Eliade's words when he states that "the sacred is an element of the structure of consciousness, not a stage in the history of consciousness" (Skolimowski, 1989: 8). For Eliade, though, evolution was seen as the "chaotic and dangerous flux of things, their fortuitous, meaningless appearances and disappearances" (1977: i). For Skolimowski evolution is not about the meaningless passage and transformation of matter through which the inorganic and the organic pass. Evolution is not chaotic but has order. It is a passage from one stage to the next and it has an eschatology. This telos does not lie outside the natural world, the cosmos, but is the reason for the cosmos.

Within this perspective, evolution has shown us that "we can no longer believe in paradise lost" (Skolimowski, 1985: 5). While the sacred is not a passage point through which humans travel, the conception of the sacred must also

evolve. Our times have religious longings which are to bring back wholeness, to heal ourselves. This is what a cosmology based on evolution can do. This cosmology will demand a new way of thinking about religion, God, and spirituality (Skolimowski, 1985: 8).

Evolution is not only geological and biological but also conceptual and theological (Skolimowski, 1985: 10). Conceptual evolution means that all knowledge is evolving, that the mind and our conception of reality are changing. Theological evolution will allow us to recognize that our conceptions of God, redemption, and salvation are evolutionary products.

A cosmology based on evolution is not only able to question the pathological philosophies of our day, out of which alienation and destruction in the pursuit of power and economic growth have been the product, but is also able to construct a new way of thinking. It reunites humans with the stars and the embers. Kohak makes it clear that the human is "perhaps a stranger in the world of his own making, the human, in his humanity, in his being as a moral subject, is at home in a nature which is not yet his, subdued by him and depersonalized in its subjugation" (1984: 74). Evolution dispenses with reductionistic philosophies and tries to answer the age old question of humanity; What is meaningful? What is our purpose? What is the structure of this new unity, this wholeness? What is death and life? These are spiritual

questions that this philosophy tries to answer. As Skolimowski states

We can no longer believe that God is dead. We no longer believe in the arrogance of secular humanism. We no longer believe in the pipe dream of narrow minded scientists and technologists who have promised us salvation through material gratification.

(Skolimowski, 1985: 6)

**CHAPTER TWO**

## EPISTEMOLOGY AND WISDOM

Some readers may worry about "how" to implement the program here outlined. My answer is: let us first get our thinking straight, for without that no implementation is possible. Logos is a very subtle and all pervading form of praxis.

(Skolimowski, 1981: viii)

It is only in terms of its values that one can understand a society's behaviour. Indeed, if the behaviour of our industrial society is tending towards disaster, it is that its values are aberrant. Yet the examination of values is at present outside the scope of science.

Indeed, scientists have no means of examining the validity of those values which provide a justification for the work which they themselves are doing. Like the Light Brigade, "Their's is not to wonder why, their's is but to do or die", - clearly an intolerable situation.

(Skolimowski, 1975: 8)

Epistemology is not a peripheral area to be glanced at when all the 'real' work has been done, at the conclusion of the implementation of a 'new way of living'. Skolimowski understands epistemology to be so important that it is the subject which occupies the first chapter of his book *Eco-Philosophy: Designing New Tactics For Living*. It must be remembered that epistemology, cosmology, and ethics codefine each other, therefore, epistemology cannot be understood as isolated from the others. It should also be stated that the mind, knowledge, and reality codefine each other (Skolimowski, 1986: 454). The cosmos is what we know through

what the mind can conceive. So this discussion takes place in remembrance of these relationships.

### The Current Scientific Epistemology

One of the fundamental distinctions that the current dominant epistemology makes is the distinction between knowledge and values. This distinction played an integral part in the founding of the conception of the universe perceived as a machine and "the elimination of such elements of our knowledge as disagreed with that mechanistic view, including intrinsic values" (Skolimowski, 1981: 1). These intrinsic values were, to a large extent, replaced by instrumental values. This led to what Skolimowski calls the Instrumental Imperative.

There is a clear relationship between our picture of the world - conceived of as a huge factory, within the confines of which physical knowledge enables us to understand this factory and manipulate it, and our growing attachment to instrumental values, through which we manipulate the world, other people and ourselves.  
(Skolimowski, 1970: 13)

It is when human knowledge has been reduced to the universe of physical knowledge that there is nothing for us to anchor our existence upon. Our only anchor is our individualism and this is the acknowledgement of nothing beyond the individual, an individual degraded to a mechanistic physical existence (Skolimowski, 1970: 12). This, luckily, is not the last word, rather we are justified by our existence among others, as stewards of love and compassion.

Only in the most myopic perspective does life become meaningful by virtue of being used as a means to something whose value is in turn solely instrumental. The infinite instrumental regression which the nineteenth century regarded as progress is coming to appear increasingly as the "rat race".

(Kohak, 1984: 101)

For Kohak, there is value in existence itself and not in its use.

With the rise of instrumental values there has been a decrease in intrinsic values. As factual knowledge (knowledge conceived as the power to manipulate) increases, intrinsic values decrease. There is a negative correlation. Physical knowledge has developed at the expense of human values (Skolimowski, 1975: 8). The growing importance of the physical sciences has come at the expense of traditional values. One can see this happening in the developing world and the type of aid they receive and want from the first world. This need not be so, that is, that the negative correlation is not necessary. Yet historically, such has been the case. This negative correlation is linked to the rise of a certain cosmology. "[Value] has a justification in the structure of our comprehension" (Skolimowski, 1975: 9). Brown makes the same point in the area of physics in the understanding of the two ways to understand light: as a particle or a wave. He states that "a particular concept of reality is valid only in a limited domain" (1979: 208). So what is the link between our values and knowledge? "We

still consider values as detached from our world view, as kind of a private domain, almost independent of the vicissitudes of society and civilization" (Skolimowski, 1970: 10). Values are rooted in cosmology, the two are inseparably locked together. The mind 'imposes' order upon reality at times when human knowledge has become overly complex. The mind creates a new logos, a new cosmology. This is such a time, when the old order is getting cumbersome and destructive. A new cosmology is coming and Skolimowski states that it will be evolutionary in nature (1986: 464).

In brief, the history of Western civilization is the history of growing complexity, as represented by the ontological process of becoming, which, however, is punctuated by the infusion of simplicity, whereby the mind, by imposing a new order on reality organizes it in a new and simplified way.

(Skolimowski, 1986: 465)

Skolimowski's statement is close to what Eddington said. "The mind, the weaver of illusion, is also the only guarantor of reality that reality is always to be sought at the base of illusion" (as found in Wilber, 1984: 191).

### Historical Positions

Skolimowski has distinguished four basic historical positions when asking the question of the relationship between knowledge and values.

1) The first position is that of classical Antiquity, in particular the position of Plato. He held that knowledge and value were to be held together. He believed "in the unity of truth, goodness and beauty. Within his universe values and

knowledge were two aspects of the same thing; no knowledge is value-free and no values can be regarded as void of knowledge" (Skolimowski, 1981: 2).

2) The second position can be found in the Middle Ages. Here, knowledge and values are fused together but values dominate any search for knowledge of the ontological order, i.e., knowledge serves the dominant values (dogmatic values) founded by the Church (Skolimowski, 1981: 2).

3) The third position is exemplified by Kant (1720-1804). Kant separated the two and yet did not give supremacy to either. He saw Newtonian physics governing the physical universe but there was a separate realm for the human. He would not allow this deterministic physical universe to subordinate that autonomy of humans. This is expressed in his statement "that starry heavens above you and the moral law within" (Skolimowski, 1981: 3). Kant is referring to the Newtonian conception of the universe, the universe as a machine devoid of freedom, and morality and to the moral universe within humanity. This later universe is separate from the physical universe.

4) In the fourth position Skolimowski has grouped classical empiricism and its recent extensions, those being 19th century positivism and 20th century logical empiricism. Like position three, there is a separation of knowledge and values but, unlike that earlier position, supreme importance is attached to physical knowledge and, therefore, values are of

little use and are to be relegated to the individual (Skolimowski, 1981: 3).

The connection between the scientific revolution of the 17th century and this fourth position is intimate. When Francis Bacon announced that 'knowledge is power' he helped to usher in a new ideology that insisted on a knowledge that is useful not in terms of a language that would invoke a sense of the sacred but in terms of the control and use of nature. Cayley observed that Bacon felt that the relationship between humanity and nature would bind nature "to your service and make her your slave" (1985: 5). These early visions of Galileo, Bacon, Newton, Descartes, etc. have given rise to larger doctrines which maintain a 'positive feedback loop'. Their visions of reality controlled what their territory was and what was legitimate and what was illegitimate knowledge within these boundaries (Skolimowski, 1981: 4). The 16th and 17th centuries were not homogeneous in their thought but those people mentioned above did want a knowledge which, "liberated from the tethers of medieval theology, was unequivocally marching towards truth and factual knowledge" (Skolimowski, 1971: 54). This new ideology, this new way of thinking, took hold in the 18th century. Under the scrutiny of such people as Voltaire, Diderot, and D'Alembert this ideology became popular because they "were not so much original philosophers as great

popularizers" (Skolimowski, 1974: 55). These Frenchmen (and others such as Condillac, Condorcet, Laplace, and La Mettrie) made their French visions of the enlightenment universal credos. These credos

were both liberating (from the tethers of the antiquated religious world view) and at the same time ominously constraining for they paved the way to a vulgar materialism, shallow positivism and the annihilation of values in the nineteenth century.

(Skolimowski, 1981: 8)

From the latter half of the 18th century the process of acquiring this type of knowledge, as power, control, and manipulation, was associated with the process of becoming human. "Man is a product of his knowledge" (Skolimowski, 1974: 64).

#### The Loss of Values

The nineteenth century marks the triumph of science and an unprecedented expansion of the scientific world view. The aggressive assertion of positivism and materialism, of which Marxism was a part; of scientific rationality and technological efficiency; of an age of industrialism, which, alas, turned out to be the age of environmental devastation, all pointed towards a brave new world in which traditional (intrinsic) values were consigned to limbo.

(Skolimowski, 1981: 8)

In the nineteenth century science and religion were in ideological combat because they viewed the world in different ways. "It was an eschatological battle, for what was at stake were the 'ends' of man's life" (Skolimowski, 1981: 9). Traditional values were being eroded between the continued

alliance of empiricism, science, and progress. This alliance proclaimed that the utilitarian doctrine was the cornerstone of all action including human action. It was proclaimed to be the cornerstone of ethics which was dominated by the principle of 'the greatest good for the greatest number'. As Skolimowski points out, there seems to be no conflict between this principle and traditional values for there is no rejection of traditional values themselves. But the definition of 'the good' was thought as the greatest quantity of material goods for the largest number of people (Skolimowski, 1981: 9). Utilitarianism had become the justification for the empiricist age of the nineteenth century. The instrumental use of the utilitarian ethic may seem like a minor point but it does show the rapid rise to dominance of empiricism within the Western world and its willingness to redefine all that might challenge its authority.

Nihilism and scientism...overtly preached the gospel of science, enshrined facts as deities, and condemned all products of the human spirit as 'meaningless' or reactionary.

(Skolimowski, 1981: 10)

The mania for continuous economic growth (mistakenly identified with progress), the enshrined mode of thinking called cost-benefit analysis (mistakenly identified as the most valid methodology), strenuous attempts to operationalize all aspects of human existence (mistakenly called the 'rationalization' of life) are all part and parcel of the same philosophy.

(Skolimowski, 1981: 11)

In the 20th century, thinking in terms of reason and progress, which were meant to be the liberation from

oppression and exploitation, has become the cornerstones of oppression and exploitation. This begs the question of why reason did not intervene, why it could not 'see' the destruction and alienation of such a philosophy.

Why has the belief in reason become an unwarranted dogma? Because it has become an intellectual and also moral straight jacket, because the belief in reason has become a blind faith, because so often in our thinking and argument we are intimidated and brow beaten by the alleged supremacy of reason, which is nothing else but the adherence to a narrow mechanistic philosophy which confines the world to the universe of physics... Within this restricted universe reason has been made a cutting and crushing tool which cuts (or crushes) everything to fit it into the mechanistic paradigm of the world.

(Skolimowski, 1978: 34)

Knowledge has been limited to such a mechanistic understanding and, therefore, anything that does not fit that paradigm is left by the wayside. For those on this 'true path' there is no creativity within the world or ourselves, there is no mystery in the universe, there is nothing transcendent. There is no conceptualization of being and becoming, of something created or creative, for everything is a thing, an it, a machine. This, humans realize, is not right. But what can one do but argue against reason itself. Let us be reassured that Skolimowski is not against reason or science as such but against such a reason and a science that cannot see its own dogmatism and its need to move beyond this, to realize that science must also evolve.

In the 19th century knowledge was no longer linked to the human being but had become mere information, a devalued

language that could no longer invoke a sense of the sacred. This knowledge of the 19th century was to make humans free but it has not done so. Humans thought that to be truly free they would have to give up transcendence, religion, and God. Humans no longer wanted to be a slave to the dogma of the church of the day, so they chose the freedom of science over the enslavement of the Medieval Church not realizing that they had created another slave owner who despised the spiritual aspirations of humanity (Skolimowski, 1978: 38). Humans are now living with the offspring of the 19th century, humans have enslaved themselves. Meaning can only be found in a mechanistic universe. Meaning has then been defined as economic growth and this is the only real meaning that can be found outside of the individual. Thus our economy must grow at any cost. The knowledge that is proclaimed as freeing us is one of bondage, suffocating people, society, and civilization.

### The Reconstruction

Something happened between 1700 and 1900. We divided man into halves. We separated man's knowledge from his essence, from his values, from his transcendental concerns. Knowledge became isolated, put into a special container called the brain...There is no longer the unity of man and his knowledge.

(Skolimowski, 1981: 13-14)

This alienation has led to what Skolimowski has called

conceptual alienation, where there was a process of isolation, abstraction, and objectification of all phenomena. This led to human alienation. Humans were situated in a vast mechanical universe in which the knowledge they possessed had nothing to do with who they were. To begin the reconciliation "we have to realize that the state of one's knowledge is an important characteristic of the state of one's being" (Skolimowski, 1981: 14).

There is a crisis in scientific rationality today, i.e., its lack of moral courage. Hubner states that the fundamental problem (crisis) lies in the relationship between the type of rationality that is expounded and the self-concept of the human being (1983: 294). This is nearly the same crisis that Kohak perceives. Hubner states that the emphasis placed on such a rationality has become an end in itself and in this lies humanity's greatness and humanities weakness (1983: 224).

A decline in the confidence of science is taking place on two fronts: 1) science as a purely cognitive, intellectual, and independent enterprise; 2) science as a useful and progressive enterprise. Some might argue that science has never been a purely cognitive enterprise, but I am not here to say that this was or is or was not or is not what science has tried to be but rather that such a vision of science seems to be disastrous if not an illusion.

Science, thought of as a purely intellectual tool to

discover objective truth, insists that knowledge conform to "permanent inexorable laws. It must be made absolutely emphatic that the meaning and justification for the progress of science here depend on the acceptance of eternal truths and of immutable laws" (Skolimowski, 1974: 62). Since the second half of the 19th century problems have cropped up within classical science with the dawning of thermodynamics, the theory of relativity, quantum mechanics, the uncertainty principle, etc. Science would now have a hard time existing as an enterprise which seeks to understand and establish these immutable laws. To what end does science progress? what is the purpose of science? At this point Skolimowski turns to Karl Popper who drew upon the epistemological conclusions of Einstein's theories, that is, "no knowledge is absolute, that all laws are temporary and revokable, transient and tentative" (Skolimowski, 1974: 62). Thus, to understand science as progressing towards some eternal truth and immutable law is undermined. The vast majority of scientists have not accepted this conclusion.

Popper advanced the idea that the scientific community can no longer seek these ultimate truths but should be satisfied with approximating truth. Yet, this conception of progress has its problems, that is, to find a better approximation and a more acceptable truth. "All in all, the present philosophy of science is in a sorry state because the traditional cognitive framework for justifying the validity

of scientific enterprises (and its progress) is in serious trouble" (Skolimowski, 1974: 64).

Thomas Kuhn, in his book *The Structure Of Scientific Revolutions*, seems to indicate that scientific problems are problems not related to a particular cosmology or society but are problems strictly for science. This, states Skolimowski, cannot be right, for problems emerge in the intersection of humans and the reality a person perceives.

The problems man investigates are a part of his life, a part of his world view, an activity he considers humanly important. In order to understand man's problems we must understand man's view of the world and his conceptions about himself in the world, we must understand his overall cosmology and his overall eschatology.

(Skolimowski, 1974: 66)

Hubner might again be useful to underscore Skolimowski's point. He states that there is no scientific truth without interpretation so there can be no eternal truth which one can point to. "There is, however, that kind of truth and that kind of historical experience which is formulated on the basis of the ever-changing, yet ever - newly - justified complex of apriori principles that characterizes a particular time" (Hubner, 1983: 203).

It is, therefore, quite clear that if humans change their perception of the world, of themselves, their epistemology will change. When I speak of humans, with particular reference to epistemology, I am speaking of the mind and so, in a sense, the mind ,reality, and epistemology co-define each other.

Popper's major work concerning epistemology is contained in a book entitled *Conjectures and Refutations* which was published in 1963. The mind, in Popper's epistemology, is creative, for where else could conjectures come from, certainly not a passive mind. Popper states that the "answer to the questions 'How do you know? What is the source and basis of your assertion? What observations have led you to it?' would be: 'I do not know: my assertion was merely a guess" (1963: 27). In the end, he states that "Truth is beyond human authority" (1963: 30). Popper clearly rejects the method of induction, that is, that observation can lead to knowledge, truth. One can never justify a theory through observation. One can only refute a theory through the use of observations (1963: 52). On the other hand, the world, for the logical empiricists like Carnap, was to conform to the structures of their propositions. To secure reliable knowledge the logical empiricists focused on the structure of that knowledge and so stated that when one has the right logical structures one has acquired reliable objective knowledge (Skolimowski, 1986: 455). As Skolimowski states, the mind for these empiricists is passive, once the mind has created and defined these logical structures the mind is seen as a mirror, reflecting the world as it can now be formed within these logical structures (1986: 455).

Popper, in declaring the unattainability of ultimate, objective truth, did not reject the conception of objective

truth. The mind is active within the search for this truth. One still formulates conjectures, for there must be some kind of organizing principle for all the stimuli that one experiences. Here one can see Kant at work within the mind of Popper.

In Popper's book *The Logic Of Scientific Discovery*, he demonstrated the importance of the creative mind. Popper is mainly concerned with how scientific knowledge grows and is acquired. Skolimowski asks a very similar question but it may be considered broader, more encompassing. The question relates to the nature of knowledge itself. Science enabled us to articulate, to make explicit, and to formulate the conception of human knowledge. Thus, states Skolimowski, science became the paradigm of all knowledge. Science provided the yardstick by which humans measure the content of knowledge. Science (reason) is, therefore, at the core of all knowledge (Skolimowski, 1967: 63). Skolimowski says this because he feels that science enabled us to distinguish between fantasy and genuine knowledge.

The question of the nature of knowledge did indeed intrigue Popper. He saw genuine knowledge interwoven in the evolution of knowledge, in the growth of knowledge. This growth is of a certain type, as organizing the stimuli of experience and then trying to refute these tentative theories in order to falsify them, to find out where they do not

conform to observation. Skolimowski concedes that the growth of science is necessary for it to exist for if science "stops growing it would not be science anymore" (Skolimowski, 1967: 64). It is here that Popper's influence on Skolimowski can be found. For Skolimowski, science grows through a permanent overhaul of scientific theories.

Our rationality, and indeed the foundation of epistemology, lies in this process of relentless criticism rather than in the process of building an infallible rock bottom of knowledge out of atomic facts and propositions.

What the structure was for logical empiricism, the dialectical process of continuous criticism has become for Popper - the cornerstone of rationality and of epistemological worth.

(Skolimowski, 1986: 456-457)

What Skolimowski finds so refreshing about Popper is his openendedness, his evolution if you like. This evolution within science is necessary for it to exist.

If problems that arise in science were simply confined to science Kuhn would be right about science being a thing in and of itself. But it is not. As Skolimowski pointed out, problems that arise within science present themselves within a larger frame, as humans interact with reality. It is scientific knowledge that has shaped the Western conception of reality, for good or for ill. What Skolimowski has attempted to do with the help of others is not to place science in a 'straight jacket' but rather to see it as an openended inquiry.

I now turn to the second view of science, i.e., as a useful enterprise. Science, in the nineteenth century, was

reduced to the pursuit of knowledge of the physical, and so the usefulness of science became associated with utility (Skolimowski, 1974: 77). The simple statement that science, as utility, has been a tool helping human survival, helping us progress, should be understood as mere delusion, contends Skolimowski.

For how can we justify the terrible misery that followed the industrial revolution in Britain, when people were chased off the land and flocked into dungeons of the nineteenth century factories...How can we justify the perpetuation of slavery in the United States, so that the industry could "progress"?

(Skolimowski, 1974: 77)

The legacy of Newtonian science in the 19th and 20th century, to be understood primarily as material progress, has had its price. Heilbroner understands the connection between the reduction of morality and material growth (1972: 94). Material progress is unable to satisfy the human spirit (1972: 160). This growth has not been all virtuous and right for even "The Holy Inquisition believed itself to be an embodiment of goodness and virtue" (Skolimowski, 1974: 78). Yes, there have been some scientific achievements that have been 'good', but Skolimowski contends that the balance is heavily weighted on the side of destruction when speaking in terms of cultures, the environment, and the creation of certain lifestyles (1974: 78-79). This reduced sense of knowledge has opened up many choices for humans but it has also impoverished us. "Let us not be impressed with the number of options, and let us see what kind of options are

given to us, and what kind are taken away from us" (Skolimowski, 1974: 80). What has diminished are our fundamental choices. As Skolimowski states, material progress has 'homoginized' the world. One of the characteristics of evolution has been and continues to be diversification. This is the essence of life and, therefore, progress is the process of ever increasing diversity found in the function, modes of behaviour, and responses of all beings.

Some have characterized those who criticize the material conception of progress as anti-rational but as Skolimowski points out "we must take seriously such people as Barry Commoner who shows the irrationality of certain seemingly 'rational' forms of behaviour in the pursuit of progress" (Skolimowski, 1974: 82).

It should be clear by now that Skolimowski contends that science and philosophy must go hand in hand.

The questions: how is a given experiment related to the theory it purports to test? What part of the theory is being tested? What is being done with a theory when the tests disconfirm it? How far can one stretch the meaning of concepts in order to accommodate exceptions which are upsetting to the theory? To what extent does our conceptual apparatus determine the nature and content of the experiments? What sort of reality does a given theory purport to describe? All of these questions, which creative scientists must often ask, are far from being purely scientific questions. These questions are formulated not in the language of science, but in a meta-language, and as such are methodological or philosophical questions. No answer can be found in the body of science proper.

(Skolimowski, 1967: 68-69)

While "Popper was right in saying that science has given

rise to all the important epistemological and ontological problems of modern philosophy" (Skolimowski, 1970: 17) his frame of reference for addressing the problems was much too small. For Kant, the problems of scientific knowledge of the 18th century posed a problem for the place of morality and, for that matter, humans themselves. While Kant held that the Newtonian brand of science provided ultimate knowledge, he asked the question, how could this be so given the unreliability of the senses? "How is it possible that in spite of the notorious unreliability of our senses the physical laws which are based on sense data are final and irrevocable?" (Skolimowski, 1970: 16). Kant answered the question by stating that the mind uses fixed categories by which humans made sense of the physical world. The structure of the mind held the key to understanding reality, the ontological order. Reality conforms to the structure of the mind and not to some ideal form as Plato had imagined it did. Knowledge is given to us by the structure of our minds.

Yet, there is the earlier question. If physical knowledge is ultimate and the universe really is a 'machine' where do human values belong? Kant's solution was to divide the universe into two separate parts, the moral and the physical. He realized that if Newtonian science's claim is to universal knowledge then the significance of morality will become insignificant as will humanity. His response, the separation, on the moral side of the universe was the

categorical imperative which placed humans as an end in themselves and never as a means to another end. "Act in such a way that you treat humanity, whether in your own person or in the person of another, always at the same time as an end and never simply as a means" (Kant, 1981: 36). This was, as Skolimowski points out, an attempt to stop the instrumentalization of humanity, which Kant could so clearly see happening.

The separation is no longer valid, as has been shown by Popper and others. Thus, there must be a continued search to link the mind, knowledge, morality and cosmology.

Values are not mere intellectual ornaments which man adds to his existence in order to adorn it. Values are rather the vital arteries which link man's biological being with the variety of his trans-biological existence. Unless there is coherence and unity between man's life and his values of the Cosmos, between his values and his cosmology, he is bound to suffer frustration, disorientation and alienation and possibly deeper mental affliction.

(Skolimowski, 1970: 5-6)

The reduction of meaning to mere economic growth and the reluctance to take up Kant's moral imperative in light of social justice has brought about economic inequality.

Knowledge has been reduced to understanding the physical universe as a mechanism. This knowledge has not only become dominant but has relegated knowledge of the sacred to insignificance. Meaning can only be found in the knowledge of the 'machine'. Thus a growth in knowledge implies growth in physical knowledge. Meaning was found in the use of such knowledge and the only use that such knowledge could give

humanity was the control and manipulation of nature. Nature has no intrinsic value, no meaning. Humans also have no meaning. There is nothing sacred. For what purpose does one manipulate nature? The only purpose possible, to enhance economic growth. At what expense? One need not treat the other with respect. It is a knowledge void of the sacred, of meaning, that brings about injustice.

If I do not treat you respectfully as an equal member of the human family, if I do not think that social justice applies equally to you and me, why should I bother to treat you as an equal economically? The moral failure is thus the prime cause of many economic inequities. The roots of our life go beyond the economic layers straight to the moral core."

(Skolimowski, 1984: 405)

Implicit within this call for social justice is Kant's categorical imperative. Along side the categorical imperative is Albert Schweitzer's ethic captured in the phrase "reverence for life" (Skolimowski, 1970: 8). In a universe that is reduced to a mere machine which asserts itself over the individual, society, over biological and human values the phrase 'reverence for life' is not only an ethical principle but also a tactic for living, "not only a moral category, but also a bio-cosmological one" (Skolimowski, 1970: 8).

Reverence for life is a spiritual principle. It is based on a deeper understanding of what the universe is about. Let us emphasize that at a certain level of understanding we are so struck with the beauty and intricacy of the universe that we cannot help but behold it reverently. At this level, our deeper understanding gives rise to enlightenment. This enlightenment generates reverence. It may come as a

surprise to a rational thinker that reverence for life is, indeed, a form of understanding.

(Skolimowski, 1984: 405)

This form of understanding is not found in the individual alone. In order to preserve human sacredness, human beings and beings in general, there must be a movement beyond the self. Our society has forgotten this. "There is no basis for the sanctity of man if man alone is the ultimate reference for himself" (Skolimowski, 1970: 10). This is a movement to understand evolution as a cosmology.

As has been indicated before, knowledge must grow in order to exist, it must progress. This is not only true of scientific knowledge but of all knowledge that makes us human, that allows us to become sacred. This progress is achieved through sacrifice. (Skolimowski, 1970: 19). This must be so for a conception of progress that is a part of our moral and spiritual heritage. Transcendence is always a leap beyond the 'isolated' self, it is always sacrificial in nature.

The understanding of transcendence for Reinhold Niebuhr is related to agape. I bring in Niebuhr because of his deep understanding of the relationship between sacrifice and love. Agape is always sacrificial in history. The act of love is not tainted within history. The act is not inadequate. This sacrificial love is demanded of us for the sake of a meaningful existence. This sacrificing self finds its meaning of sacrifice beyond the historical confines of the present

situation. In this way history participates in the order of spirit measured by faith (Niebuhr, 1964: 75). Harland writes of agape "It enters into history to be crucified. It is not a strategy of historical success. Sacrificial love remains truly sacrificial. It is relevant to all history yet it is not directly applicable as historical strategy" (1960: 11).

Skolimowski, though, thinks that agape can enable history to progress. This type of progress is a process of perpetual transcendence. Evolution, in the sense of enabling such an epistemology that enables transcendence, is not antithetical to divinity. "Darwinian evolution can be seen as a process of perpetual and increasing transcendence" (Skolimowski, 1970: 20). If the pursuit of economic growth is assumed to be the only type of progress that has meaning then, Skolimowski states, humans will never understand what it means to be human, to be life giving, and to transcend. To understand life one has to understand evolution and knowledge as processes of transcendence. Popper was right when he united evolution and knowledge but his understanding was limited.

In order to understand [evolution's] nature, we have to go beyond its molecular structure, and beyond its logical reconstruction as merely a scientific theory; we have to understand its growth: its dynamic unfolding, its dialectics, its transformations.

(Skolimowski, 1970: 22)

The reunification of being, becoming, and knowledge is what Skolimowski wants to bring about. Knowledge is inseparable from people. Scientific knowledge is what Skolimowski is talking about but who says science has to be

devoid of morality and divinity. Knowledge matters to human beings.

"To think correctly is not merely an abstract characteristic of the brain, (but) a combination of intellectual and moral power" (Skolimowski, 1981: 18). What this entails is "a change in the structure of our knowledge and in the structure of the mind" (Skolimowski, 1981: 18). This will lead, so Skolimowski hopes, to a reunification of the value-knowledge split. But this kind of thinking is much more difficult than abstract, mechanistic thinking. "We have to change the world around us, and the frame of our minds, and the structure of our knowledge" (Skolimowski, 1981: 19) in order that such words as dignity, freedom, faith, grace, and religion are not empty and meaningless.

#### The New Mind and New Reality

I now return to Popper for a moment. Popper thought that there was a hard, objective, immutable truth, a reality out there to which our conjectures approximate, and by which the falsifications of those conjectures will bring us closer to that truth and thus, through refutations, one comes closer to understanding absolute truth. Bohm and Peat state that "rather than putting an exclusive emphasis on falsibility, it may be more appropriate to suggest that science consists of a two-way movement of confirmation and falsification" (1987: 59). They contend that the mind that wants to defend its

theories to the end can and will do so. Such a mind will not be able to risk a change in their consciousness, they will 'play false'.

Skolimowski contends that reality is not given to us but is rather continually created by humans (1985: 14). This is a recognition that humans are not only beholders of reality but also the makers of reality. That is to say, given different conjectures there will be a different understanding of reality and so the narrowness or openness of our conjectures will reflect back as to the type of reality one will perceive. This opens up new questions. Skolimowski acknowledges this by asking such questions: of the subtlety of subatomic particles; of objectivity; of 'mindful' electrons; of wholeness; of the dividing line between imagination, which may become real, and the fictitious, which will never reside in the real; of the language to be used; of the extension of the real and, therefore, reality; etc. (Skolimowski, 1986: 459). David Bohm and Ilya Prigogine are philosophers of science who are trying to work out the implications of such an epistemology.

Skolimowski talks about reality as 'continually becoming'. When human knowledge no longer fits within a current paradigm it is the paradigm that must change or our knowledge that must change. The change to a new paradigm is painful, sacrificial, and so any movement from one paradigm to another must carry with it compassion, for this is a part

of reverential thinking. One of the consequences of this new epistemology is tolerance which is a constituent of compassion; on another level tolerance is the precondition of imagination which is a form of creativity (Skolimowski, 1986: 461-462).

Within all of us, the ontological order and the epistemological order interact. When the ontological order becomes too complex the mind will simplify that complexity and a new order will emerge or what Skolimowski calls a 'new logos on past complexities'.

Lurking behind the reunification of mind and reality (truth, if you like) is a new concept of who humans are. Of course there is the realization that the mind is no longer the 'disembodied organ', but rather humans, as a whole, are sensitive beings. Through each new sensitivity (reality, logos) humans become sacred, spiritual beings (Skolimowski, 1986: 466). The movement from molecules to life was made possible by the creation of sensitivities and was, therefore, a transcendent moment, as was the emergence of consciousness. There is no more to reality than that which one can sense.

We have no idea what so ever what reality could be like as it is, because always, when we think of it, when we behold it (in what ever manner) reality is invariably presented to us as it has been transformed by our cognitive faculties.

(Skolimowski, 1986: 467-468)

This is not idealism, contends Skolimowski, which would deny reality, truth, "for it accounts for all stages of the real in its evolutionary unfolding" (Skolimowski, 1986: 468).

Sacred knowledge lies within reality and, at the same time, creates the reality which surrounds it. Knowledge and reality do not lie in separate corners of a room in which a blind human tries to find either one or the other.

Truth, goodness, love, and beauty are vehicles of our sensitivity. They are an outgrowth of our earlier 'natural' sensitivities which, through symbolic transformation became instruments of illumination and, further more, of spiritual articulation.

(Skolimowski, 1984: 29)

This is the evolutionary transcendental theory of the mind which could also be called the ecological conception of the mind.

#### The New Imperative

The question has been put forward as to why should one seek to unify values and knowledge? On what should values be grounded? Why should I think reverently? Why should this new evolutionary logos enable one to become compassionate, loving, to be responsible?

It is sad that the logic associated with 19th century science cannot enable one to be compassionate and to be responsible. To ground values in evolution, in becoming, takes away all absolutes and makes the ground on which to place values virtually impossible to find, or does it? Responsibility (I deal with it because Skolimowski does) lies within every human, in every home, and pervades human history. Why? It is my contention that humans have always sought to be accountable to someone, be that responsibility

reduced in nature or not. The new imperative demands responsibility for it drives itself on behalf of the epistemology it seeks to justify, its cosmology, and its eschatology.

Kant thought that the categorical imperative lay within the human being, that this moral law was separate from the mechanistic laws of the universe. How can one talk of morality when the division between the inner world and the outer world are collapsing? Is morality pure fantasy, given this new epistemological-cosmological unity?

The order we find in the cosmos is neither given to us a priori, nor is it entirely subjective. Rather, order acquires objectivity in the course of evolution which, through the capacity of the human mind to create order, affirms itself in structures of increasing complexity. On the level of Homo sapiens, evolution pre-disposes the human mind to create trans-subjective values, to establish moral codes, to set up social contracts - as well as to conceive of responsibility as an important attribute of human existence.

(Skolimowski, 1984: 125)

This is reverential thinking. The traditional question of asking 'who am I?' is both a cognitive-epistemological question, and a moral question. "One of the great questions of western philosophy has been: How can we secure the objectivity of knowledge and the reliability of morals" (Skolimowski, 1984: 151). In order for this to happen, at least to establish a foundation for values, humans must belong and not be alienated from the cosmic order. Within the evolutionary logos the unity and reliability of knowledge and values is found, that is, by looking at evolution itself.

"How the process of becoming molds the varieties of being into new ontological and spiritual forms" (Skolimowski, 1984: 153).

It is through evolution that sensitivities were and are being acquired that enable humans to become moral agents. To allow morality to 'blossom' the articulation of that world view must be carefully thought through. This is the essence of articulation, of language, in that it will enable us to become what we ought to become. "The truth is not in the statement but in the experience to which it directs us. The hearer has grasped the truth when he is in turn able to say, 'I see it, too,' not when he can repeat it correctly" (Kohak, 1984: 64). For Kohak, the purpose of words is not to contain those experiences but to point to them, to evoke them (1984: 65). Each of us, as subjects, must begin to engage in compassionate reasoning. There is a unity between the real, the true and the moral. These values become real and are, therefore, found within the structure of reality. Morality is not just found within but without.

**CHAPTER THREE**

## FREEDOM AND RESPONSIBILITY

Harken to the reed-flute, how it  
complains, Lamenting its banishment  
from its home; - "Ever since they  
tore me from my osier bed, My  
plaintiff notes have moved men and  
women to tears, I burst my breast,  
striving to give vent to my sighs,  
And to express the pangs of my  
yearning for my home. He who abides  
far away from his home Is ever  
longing for the day he shall return.  
(Rumi, 1975: 1)

I think we are now in a period where  
we can afford to acknowledge  
simultaneously the divinity of man  
and man's essential freedom.  
Moreover, we can claim that we  
acquire freedom by increasing the  
spirituality within us.  
(Skolimowski, 1978: 38)

### Freedom, Responsibility and Divinity

Freedom, as understood above, is not, in fact, what modern society is built upon. Freedom, as understood within the visions of the French and the American revolution, has meant the absence of accountability and spirituality. It was in these bourgeois revolutions that our modern understanding of freedom is to be found. The American revolution certainly did not mean freedom for the black people of America. Freedom meant freedom from aristocratic authority. In this sense freedom was never understood in relation to responsibility and accountability. Wilding and George comment that "the Classical liberal conception of freedom is one of absence of restraint, of non interference, of freedom from control... 'we take freedom of the individual or perhaps the family as our ultimate goal in judging social arrangements'" (1975: 374).

For Kant, freedom was the ground upon which responsibility, the categorical imperative, rested. Without freedom there could be no responsibility, no responsible action. The imperative was the 'ought', that which ought to be done. Kant stated that this imperative was a priori and it lay outside the physical universe. How could this be otherwise in a mechanistic universe. The key point being that Kant saw that freedom and responsibility were linked to each other. Kant does not overtly invoke a sense of divinity within this imperative, at least not in his *Grounding For a Metaphysics Of Morals*. Rumi took this step. Not only were freedom and responsibility tied together but they were bound with divinity. At the beginning of the *Mathnavi* the reed is longing for a return to its home, the ground upon which its being rests, that being God. According to Rumi it is within divinity that nature and humans find their essential freedom and along the path they become responsible (1975). The turn inward is a turn outward.

Skolimowski wants to show that freedom, responsibility and divinity are linked. Human freedom is found in divinity. In this understanding, freedom is bound with responsibility. In our society we are willing to separate the three from one another. From this Skolimowski draws a conclusion that Christians might find to be a bitter pill. With the help of a certain interpretation of the Judeo-Christian heritage, our society seeks a Messiah that will save us.

He will redeem. We wait for him. We always wait for *another* to save us. We always think that salvation, spiritual or political, is a public act to be performed by a chosen one. We wait to be saved by someone - not by ourselves.

Traditional religion may have waned, the idea of Messiah has not...In truth, we have elevated science and technology to the role of the savior.

(Skolimowski, 1985: 21)

Our society has left the responsibility to 'fix' the problems of our age to the experts. We have given up on ourselves to be responsible persons, whole persons. Skolimowski wants to show that, like Kant, we can accept that the world is predetermined, a machine to be used, or we can accept that the world is creative, evolving, and not following some predetermined course.

In my view, it is only by accepting the former [in this case the latter] alternative that we can make sense of evolution in human terms; that we can talk about responsibility within an evolutionary framework; that we can talk about our will and freedom while contributing to the creative process of evolution.

(Skolimowski, 1984: 48-49)

Responsibility is a moral category. How could it be otherwise. But Skolimowski adds to this. Responsibility is also a cognitive category because it "is a precondition of understanding the world in its totality" (1984: 124). This is also true if we understand that to be responsible is also to be human. Schumacher, in discussing Keynesian economics, states that economic progress is built on selfishness and greed. "A man driven by greed or envy loses the power to see things as they really are, of seeing things in their roundness and wholeness, and his very successes become

failures" (1974: 25). The understanding is one of the connection between perception and the cultivation of certain values. Tillich also understood the essential relationship between morality (the courage to be) and understanding the world when he states that "an understanding of courage presupposes an understanding of man and his world, its structures and values" (1952: 2).

Kant would not understand this cognitive category because he accepted a separation between humanity and the world (physics). This Skolimowski has rejected. "The moral order is a part of the larger cosmic order" (1984: 125). There is a tie between the moral law within and the cosmic law without.

Freedom is foundational in a creative cosmos where pure chance and determinism are no longer tenable. Freedom is a constituent aspect of evolution. Although freedom is a constituent aspect of evolution, responsibility is not. "Responsibility, seen in the larger cosmic plan, is a late acquisition of evolution" (Skolimowski, 1984: 126). It arises in self consciousness, which is only a recent creation of evolution. Kohak makes the case that other beings do not need to become responsible for they are responsible. "Not animals only: insects, trees, plants, though much more humbly, recognize the presence of the world of others and respond to the cycle of the day and night and to the rhythm of the seasons" (1984: 185).

Freedom is not a negation of responsibility or of divinity, for freedom is intimately connected to them as it must be.

### Freedom and Nature

The act of being responsible only arose within evolution when humanity came upon the scene. Freedom has become one of the building blocks for responsibility. But can freedom be found within nature? This question is not addressed specifically by Skolimowski but the answer is implied by the statement that evolution is a creative, emergent activity in which matter becomes spirit. Values are woven into the structure of evolution, values that lead towards life.

A challenge to such a view of evolution has been put forth by J. Monod in his book *Chance and Necessity*. The cornerstone of this challenge, in my view, is reductionistic and empiricist. Monod refused to believe in a participatory universe, a universe of creativity and mystery. For Monod, meaning and morality were not found in nature. Nature is taxonomic but not teleological, there is no great purpose to life, to evolution. Only humans are meaningful.

The cornerstone of the scientific method is the postulate that nature is objective. In other words, the systematic denial that "true" knowledge can be got at by interpreting phenomena in terms of final causes - that is to say, of "purpose".

(Monod, 1972: 21)

That is what Skolimowski continuously renounces. Nature is not objective. A certain perception has to be placed alongside a certain way of thinking and of valuing.

I am not saying that we should tolerate values as an appendage to our objective thinking, but rather that the integrity and validity of our thinking depends on our capacity to integrate values into our thinking; and conversely, on our capacity to integrate analytical thinking into the framework of sustainable values. In so many traditional societies, the Buddhist especially, there is a clear awareness that right thinking, and right attitudes lead to right action.  
(Skolimowski, 1984: 45)

This 'right thinking' is an outgrowth of evolution and not of each individual. The promotion of 'right thinking' and thus right action, in reference to conservation, is not done through, for example, cost-benefit analysis but through the promotion of ecological values. Reverential thinking is an ecological value.

Aldo Leopold, one of the major influences within the conservation movement in the United States, related ethics to the land, the Earth, in a reverential way. This land ethic was a way of thinking correctly and a way of acting.

Conservation is a state of harmony between man and the land. By land is meant all the things on, over, or in the earth. Harmony with land is like harmony with a friend; you cannot cherish his right hand and chop off his left.

(Leopold, 1953: 145)

We shall never achieve harmony with the land, any more than we shall achieve justice and liberty for people. In these higher aspirations the important thing is not to achieve but to strive. It is only in mechanical enterprises that we can expect that early or complete fruition of the effort which we call "success".

When we say "striving", we admit at the outset that the thing we need must grow from within. No striving for an idea was ever injected wholly from without.

(Leopold, 1953: 155)

Leopold's ethics rest on this premise of harmony, the right relationship between all things, where the individual is part of a larger whole made up of interdependent parts. It is from this that Skolimowski develops an evolutionary imperative, for evolution itself is a value (1984: 49). These evolutionary values humans have known from understanding who they are. In a sense values are species based, as a species creates new sensitivities to view reality, in that they are found in the design of life itself and relationally based. "The laws of ecology are qualitative and expressed in teleological terms - the design of life and its purpose must be taken into account while studying the ecological heritage" (Skolimowski, 1989: 158). What this indicates is that biological processes (understandings) are value laden, for example, the notions of interdependence, symbiosis, cybernetics, and life itself. For Skolimowski, values are woven into the dynamic structure of evolution.

What is the relationship between value and freedom? It could be said that evolution has valued life over death (destruction) in the course of its progression. The ability to choose what one does is integral to what one values. The new sensitivities that are opened to view reality shape the values that one gives to that reality.

While responsibility is a recent phenomenon in the evolution of matter one must say that values are not. Evolution is pervaded with values. Transcendence is not predestined but built upon previous articulations of

trancendence, previous windows that have arisen within the process.

### Responsibility and Being

The 'depth' of understanding one has is related to the question of being. As stated in chapter two, knowledge is connected to the state of one's being. Heidegger talks about this relationship in his small but important essay *On The Essence OF Truth*. Here truth is understood as the 'unconcealment of being' (1977: 129). Therefore, if one's knowledge is reduced to understanding reality as material then one's being will be reduced to such an understanding. "It is through knowledge that man forms and formulates himself as a human being. The pursuit of man is the pursuit of knowledge" (Skolimowski, 1967: 73). Being is linked to transcendence in that the state of ones being is related to the sensitivities one has and will have. Dwelling within a certain context will create a certain way of being. This, Skolimowski states, is when one grasps what it means to be interdependent, the "wholeness is...not a description of the state of things, but a description - rather an experience - of the state of being" (Skolimowski, 1984: 93). Wholeness is not an objective understanding of the connection between, for example, trees and soil erosion, but a state of being. It is related to the subject, it is existential.

Being is not a static concept because it is always connected to becoming, to the language of becoming. All of us fall short of who we ought to be and so the language of being is always also the language of becoming. Being is also related to the sacred. Right knowledge is the process by which humans become human, become who they ought to be. This ought is that state of being whole, transcendent, reverential, and loving. To be is to dwell in that state of wholeness, the sacred.

Understanding being as an experience of dwelling within a unified cosmos makes responsibility an important attribute of human existence. Being responsible, as conceived above, is not solely grounded outside the subject, as something imposed upon one, but it also comes from within that individual. This does not make responsibility a subjective enterprise. Responsibility is not subjective but is born out of evolution within the subject. In a Heideggerian sense, truth is the unconcealment of being. Our being has been concealed too long, we are no longer able to 'see' who we are. The ought is to reveal this truth which is grounded in being. This is our imperative, to reveal being within evolution.

Tillich, states Skolimowski, is of importance in terms of his conception of being. "The courage to be is an ethical act" for "courage is the affirmation of one's essential nature" (Tillich, 1952: 4-5) which involves unavoidable sacrifice. Tillich states that our existence is "estranged"

from our essence, that is, from who we truly are or, for Skolimowski, who we truly ought to become. "The way man actualizes his essential self is through the peculiarity of the structure of his being" (Skolimowski, 1985: 32).

Ontology is the starting point to understanding the nature of humans and the nature of religion. Is such the case for Skolimowski? This could be the case if ontology is thought of as becoming in a broader sense (within evolution). It could then be the ground upon which to analyze the nature of religion, it certainly is the ground upon which to understand human nature and reality itself. The participation of individual ontology within evolution allows humans to understand evolution in totality because of its participation in the whole. It is through evolution that transcendence and spirituality are understood.

In the final analysis, it is within our being that humans become responsible and not through an objective description. The mere description of an ecosystem, for instance, will not make us responsible for it. Neither can responsibility be a mere appendage to such an objective analysis. Our analysis of any ecosystem must come from our being where there is found a unity of analytical knowledge and care, responsibility, and values.

Evolution is becoming which continually explodes into being. In the very idea of being, which comes into existence through the articulation of becoming, we find the underlying objectivity for both morals and knowledge.

(Skolimowski, 1984: 154)

## Of Freewill and Vision

Skolimowski has stated that freedom and responsibility are tied together. Our cosmologies are an articulation of vision and will (Skolimowski, 1989: 7) and as such must lie within the realm of responsibility and freedom. Yet a vision is a deeper articulation that lies within us all.

The process of justification and rationalization is a posteriori. Before it begins another process must occur. From the hidden springs of our inspiration, from the deeper reservoir of our values and ultimate visions, there comes an insight informing us that we should do something because it is good and worth doing. It is this vision, arriving from hidden springs of our intuition, that provides the potency and creative substance within which or on top of which rationality and rational modes can be applied.

(Skolimowski, 1989: 86)

Vision is also linked to imagination, for "original thinking must precede rationalization" (Skolimowski, 1989: 86). Humans have to allow themselves the freedom of imagination. The assumption being that creativity is tied with freedom not rationalization.

The ability to simply criticize takes no imagination, no vision. Critical analysis alone will not relieve us of the crises that dominate our society. "What plagues society most is an atrophy of vision. Because there is no vision, people become cynical, they take drugs, then explode with violence" (Skolimowski, 1989: 88). Yet to simply have a vision is not enough. Just any old vision will not do. Bohm and Peat state quite clearly

that we are, indeed, free to construct knowledge and the world as we desire...We cannot impose any worldview we like and hope that it will work. The cycle of perception and action cannot be maintained in a totally arbitrary fashion unless we collude to suppress the things we do not wish to see while, at the same time, trying to maintain, at all costs, the things that we desire most in our image of the world. Clearly the cost of supporting such a false vision of reality must eventually be paid.

(1987: 57)

The articulation of the vision is to be done responsibly, within being. "As man is so he 'sees'". Vision is closely linked with reality, with creating new sensitivities, within the process of becoming sacred.

This linkage between reality, will, and vision is important for "cosmologies are a matter of will and vision" (Skolimowski, 1989: 7). The universe, reality, is understood as reverential if humans have the capacity to visualize such a universe. To articulate and thus develop these sensitivities will enable humans to dwell in a state of grace. "To the divine mind, the cosmos is divine" (Skolimowski, 1989: 8). To articulate this new vision, to become what humans ought to be, is not a process void of suffering. To change human consciousness will bring about pain. This will require a radical change in consciousness and, therefore, behaviour. Revolutions of the past 200 years have, in general, failed to change our consciousness and, therefore, our behaviour towards others and nature. They have failed the vital task of any revolution, that of the evolution of consciousness. It is in the process of changing the individual's consciousness and existence that liberation

can exist. Liberation theology has yet to be judged from such a standpoint as does the New Physics. It is my hope that they will accomplish such a change. The ecological crisis that confronts us demands such a change. The struggle to become must take place on an individual level, for it is not only a struggle without, it is also a struggle within.

### The Courage To Be Responsible

It will be difficult for any individual to become responsible. Responsibility is an attribute, a sensitivity found within humans. The courage to step forward and declare that compassion and reverence are essential components of humanity and not dominance, manipulation, and destructive power will indeed take courage in a time when the latter still dominates our consciousness. Courage should not be blind to the vision.

Skolimowski, though, makes us aware of the connection between courage and a meaningful existence.

Why should you have courage? Because you are human. What should you have courage for? For living life as an authentic being - not an automaton, manipulated by social dictates or biological urges, but as a free agent who makes painful choices to express the fullness of his human condition.

Take away courage and what is left of the human condition? Take away courage and what is left of history? An empty shell howling in its meaninglessness. To live in the outrageous and impossible times of ours requires courage, which is a precondition of the belief in the meaning of life. We cannot live by courage alone. But without courage we cannot live meaningfully.

(Skolimowski, 1989: 89)

Skolimowski has echoed Tillich. "Man's being includes his

relation to meanings. He is human only by understanding and shaping reality, both his world and himself, according to meanings and values" (1952: 50). Because of the sacrificial character of 'authentic being', there is a risk involved in the process to be, there is a psychological security in a position that may be destructive (Tillich, 1952: 68). The participation in existential knowledge is necessary to create meaning but it is also sacrificial in nature (Tillich, 1952: 124).

Humans must have more than courage. This is borne out by the fact that courage can be used to justify domination, that is, this is courage but a courage that is used to justify a reduced sense of meaning, devoid of the sacred.

Humans must have the courage to unveil being and becoming. It is through courage that humans can become authentic, can be who they ought to be. It is courage that enables us to find meaning in this seemingly meaningless world. It is courage that enables articulation of such a vision of the universe. It is courage that will allow us to be ourselves in silence and to change the world through deeds. For Skolimowski hope is the grounding for courage. In spite of our times humans hope for a divine future and this hope is of particular importance in a time of scepticism and nihilism (Skolimowski, 1985: 34). It is through hope that responsibility is demonstrated. A hope that the essence of the universe, of humans, is not mechanical, manipulative, but

found in reverence, compassion, and responsibility. In an evolutionary cosmology, hope is found in becoming what we ought to be. Hope and responsibility are not only found in the courage to be but in the courage to become.

On one level, this model of courage and vision represents the philosophy of affirmation and empowerment, on another level - the celebration of life (Skolimowski, 1989: 91). This is what must be held together, the ends being the courage to become more than that which we now are, and the celebration of life, the spiritual presence which humans manifest and the courage to do so. This is a mix between Kant's Categorical Imperative and the evolutionary imperative. Evolution should not be seen as negating that which is already good, that which humans are essentially and the courage to reveal this but it demands that to be human, humans must have the courage and the hope to move beyond, to transcend that which humans essentially are to that which they can essentially become.

In this understanding, Skolimowski does not draw a strict line between essence and existence, but rather to enable existence to realize its essence and then to transcend this. This is the mandate of evolution.

In this world alot of us feel unacceptable, inadequate, and, therefore, we are unable to think of ourselves as good. How can one have 'the courage to be' when one feels unacceptable? To this Tillich responds, "one could say that the courage to be is the courage to accept oneself as

accepted inspite of being unacceptable" (1952: 164). This act of acceptance comes from beyond the self, as the fundamental encounter with God, with life.

### Grace And Other Things

Grace, for Skolimowski, is the "natural endowment" of every human to see and articulate the sacred. It is not a gift from the supernatural realm. For some the endowment is greater than in others yet the manifestation of grace within is a result of one's ability to 'bring forth' this natural endowment, to enable it to blossom is our responsibility (Skolimowski, 1985: 38). This responsibility to manifest grace is of a religious nature. Grace, like responsibility, is an evolutionary trait of humans. In this sense, grace is related to one's being, to the condition of one's being.

It is a condition of harmony with the cosmic plan, at least with the forces which transcend the individual self. This condition of wholeness, which we call grace, invariably goes beyond the wholeness of one's individual being, beyond the integration within the human person. For grace radiates harmony which is of a cosmic kind... One of the characteristics of grace is that it is a form of love. Grace is also a form of radiance which, like hope, enables others, within its reach, to be more dignified, more human, closer to their inner selves.

(Skolimowski, 1985: 39)

Grace is not the precondition for responsibility but it is our responsibility to empower grace within ourselves and others. The 'cross' one bears does not come from without, it is not a burden imposed from outside of who we are. Grace and responsibility are liberating not suffocating. Love is not a burden but a joy and the responsibility to manifest this love within us is also liberating.

In some sense I have come full circle as to what is freeing and liberating. To be human is to be responsible. Responsibility enlarges our vision, allows us to live in a state of grace, wholeness, and gives us the courage to celebrate life and become who we ought to be. Humans have yet to realize this state of grace. We have yet to unveil our essential selves let alone who we are yet to become. The responsibility for being and becoming is vested within humanity. It is we who are the guardians of evolution, the self perfectibility of humankind.

Grace is often seen as unimportant except in relation to the salvation that one will attain after death. In this understanding grace is not related to the world in which we live. Within a mechanistic worldview grace is a word that has little or no meaning, no meaning except maybe for the individual where it has a purely subjective understanding. If the universe is a machine, how is grace possible and does it matter if it is? Skolimowski wants to reassure us that the universe is not a machine and grace is possible for this world. Grace is apart of matter. Responsibility is not subjective but a way of viewing reality. Responsibility to manifest grace is a natural endowment felt by all of us, but we must have the courage to manifest such grace.

#### Language and Responsibility

Language is understood by Skolimowski as a tool by which humans articulate their cosmology, the sacred, and their

being. Skolimowski does not want to give the impression that language is an implement but rather a technique by which one, in a Heideggerian sense, discloses being, meaning (Heidegger, 1977: 307). Language is able to do this because it not only names 'things' but it also has symbolic significance.

The symbolic function of language also means its transcendent function. Symbols metamorphose the reality which they symbolize. If you needle somebody, you don't need a steel needle; those psychic needles are far more ruthless and devastating. The world of the human psyche is the world of symbols, through which we express the various states of our being.

(Skolimowski, 1984: 80)

For Skolimowski the transcendent function of language has two meanings. In the first case, the symbolic function is found within human culture, that is, the transformation of physical reality into a 'trans-physical' reality. In the second case transcendence refers to the evolution of the human species. It reflects the present sensitivities that humans have acquired and the struggles they are facing and it articulates that which is emergent, that which is not yet 'real', that which is in the process of becoming yet has not come into existence (Skolimowski, 1984: 81).

The task of language is to actualize the potential and the essence of the process of evolution, that is, articulating the spiritual potential within us and the cosmos (Skolimowski, 1984: 81). In this sense, language not only articulates being but is a force by which transcendence is brought into existence in the process of evolution.

Language, therefore, has a prominent role to play in bringing about our humanity, our freedom. The type of language humans use is an indication of how human we are and how human we are to become. In this sense language not only enables us to be free but also to be responsible. How so? The articulation of a world view is a responsible act. It is reality creating. When combined with a particular vision, an ecological vision, it enables freedom. For when humanity is understood to be a part of this vast cosmos, where the world is a home for humans, freedom is found within that particular world view. In the case of Skolimowski, this world view is evolutionary in nature and teleological. Thus a certain articulation can either enslave us or free us, make us responsible, can liberate us or it can shrink our being.

Language is not simply a mirror of reality and humans need only to look into that mirror and articulate that which they see, but rather it is part of the co-creative process by which freedom and responsibility are manifested.

#### On Judgement and Anthropocentrism

I start with my central thesis: behave in such a way as to preserve and enhance the unfolding of evolution and all its riches. Is this an anthropocentric thesis? I submit it is not, for it has, as its center, life in all its evolution. Then I show how more moral precepts follow from the above:

- behave in such a way as to preserve and enhance life, which is a necessary condition for carrying on evolution.
- behave in such a way as to preserve and enhance the ecosystem, which is a necessary condition for further enhancement of life and consciousness.

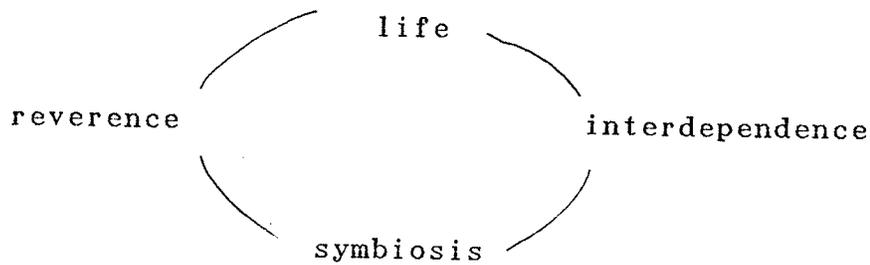
-behave in such a way as to preserve and enhance the capacities which in their highest developed form found in the evolved universe: consciousness, creativeness, and compassion.

-behave in such a way as to preserve and enhance human life which is the vessel in which the most precious achievements of evolution are contained.

(Skolimowski, 1984: 285-6)

One of the criticisms that has been leveled at Skolimowski has been his seeming anthropocentrism. While some have argued that any anthropocentrism creates a dichotomy between humanity and nature, I would have to disagree. While Skolimowski is anthropocentric he does not, therefore, state that nature is meaningless, humanity is the 'spirit' while nature is the 'flesh'. These elements are not found within his writings and Skolimowski denies such 'perversions'.

In the first place, Skolimowski places humanity within life itself, within evolution. In this context, humanity is not separated from nature, rather humans find themselves right in the midst of life, of nature, and, therefore, within the framework of life itself. Secondly, Skolimowski has detailed, quite specifically, that in order to be free one must be responsible, that is, a responsibility that goes beyond the self, beyond the human species. Responsibility has ecological consequences (Skolimowski, 1989: 160). In certain situations it is appropriate to take the life of a 'lesser' developed being, e.g., a mosquito, but this is done from a different world view. This world view is not built on separation, atomism.



(Skolimowski, 1989: 159)

It is within this mandala and the evolutionary imperative that one takes life. Where knowledge is no longer seen as power, as domination, the ability to manipulate, and control. "Compassion and empathy should be our guides" (Skolimowski, 1989: 288).

Thirdly, as stated above, this new world view provides different values by which our anthropocentrism is understood. No longer is it to be found in domination but in reverence, respect, tolerance, compassion, and responsibility. It is an open dialogue, not a closed absolute one. These are values that humanity has come to cherish and not dogmatically force upon others. Judgement, in relation to our anthropocentrism and as it is found within life itself, is not and cannot be understood under the darkness of dogmatism but in the light of openness, and with the realization that 'I' might have to change my mind.

Evolution must be taken seriously. This is true with respect to how humans value and therefore judge and take responsibility for themselves and others. Skolimowski may be right in saying that this will be necessary for humanity to survive and more, that is, to live a meaningful existence.

## On Meaning

Mankind is on the threshold of a new stage in its development. We should not only promote the expansion of its material, scientific, and technical basis, but, what is most important, the formation of new value and humanistic aspirations in human psychology, since wisdom and humaneness are the 'eternal truths' that make the basis of humanity. We need new social, moral, scientific, and ecological concepts, which should be determined by new conditions in the life of mankind today and in the future.

(WCED, 1987: 39)

What is called for above is the creation of a meaningful new social order. But where is this meaning to be found? Skolimowski has stated that responsibility is imbedded within humanity, it is a part of 'who we are'. In this sense, what is meaningful is to do that which makes us human, that which makes us who we ought to be. This is meaningful liberation. Responsibility and freedom have been embedded in a larger frame, for meaning is to be found by placing who we are within this larger frame. Responsibility and freedom are embedded within a cosmology. For Skolimowski evolution is the grounding for such a cosmology. But to find something meaningful means that 'I', 'we', must find that meaningful. It is in re-uniting humanity with the world, that is, with the cosmos, that Skolimowski has shown that what is meaningful for the cosmos is meaningful for the individual. Responsibility is species bound and trans-subjective. "We are [evolution's] guardians and its dwellers; also its stewards, in the best sense of the term 'steward'" (Skolimowski, 1988: 127). We dwell within the evolving universe. It is this that provides meaning and responsibility. This view is a religious

view, a spiritual view. Responsibility and freedom are spiritual terms and values. Freedom and responsibility are tied to our human destiny and to meaningful existence. This is truly a religious quest.

**CHAPTER FOUR**

## ECO-THEOLOGY: The Building Of a New Religion

The world in which we live and in which we do our 'study of religions' (if it is to be more than collecting and classifying of 'data,' supposing that we know what we mean by 'data') is different from the world in which the logos-theory developed. It is, in fact, another reality. Classical theology is ontologically inadequate to come to terms with this new, man-made reality; similarly, ordinary language is inadequate to serve as the 'ontological horizon' for the kind of theoretical frame which we need.

(Klostermaier, 1976-77: 559)

The regeneration of our individual life styles will not be possible and bringing about equity and justice to the human family extremely difficult unless we attend to the deepest questions that characterize our existence. These questions are religious in nature. Religion is not an opiate for the masses, it is part of the scaffolding of our being.

(Skolimowski, 1985: 61-62)

Is religion a necessary part of the being of humanity or is it something that is no longer of any value? Throughout the course of history humans have turned to religion in times of despair, loss, suffering, etc. With the dawn of the scientific revolution of the 17th century some felt that religion would become obsolete. The enlightenment was the dawn of a new consciousness that would liberate humans from the yoke of archaic values found within the Medieval Church. This turned out to be false, as Skolimowski points out. The movement from religion was seen as a movement towards freedom. The hope for Marx, for example, was the elimination of oppression that he saw during the industrial age of the

19th century. For Marx religion was the indicator by which to show that there was oppression. He felt that the elimination of oppression would mean the elimination of religion. The movement of history was a movement towards secular freedom and liberation. Yet history has given a different answer to Marx. History has not born out his conclusions. The consequence of any secular philosophy has denied us our humanity and has become what it set out to free us from, that is, the oppressor. "We no longer believe in the arrogance of secular humanism: we no longer believe in the pipe dreams of narrow minded scientists and technologists who have promised us salvation through material gratification" (Skolimowski, 1985: 6). It is Skolimowski's idea that only through religion can humanity become what it is meant to become, that is, sacred, spiritual, responsible, open, and liberating. Religion is such a structure by which humanity will liberate itself and all of nature. "The primary function of religion is to provide a framework for ideals which are inspiring and sustaining to life" (Skolimowski, 1981: 108). This is a symbolic transformation. Skolimowski goes on to state that this symbolic transformation of reality has been no less

significant in the ascent of humanized man than the invention of tools and of language. The role of religion in this symbolic transformation has been second to none. Religion transforms reality with a view to making man unselfish and altruistic; it inspires him with transcendental ideals which help him to live within the human family and help him to reconcile man with himself.

Religion, ultimately, is an instrument in man's search for his identity, his integrity, in his painful struggles with himself to attain and preserve his humanity and his spirituality.

(Skolimowski, 1981: 108)

To answer the question of why turn to religion is to say that religion enables us to be who we are and who we should be. In this sense it helps answer the question of purpose, the meaning of life, and of wholeness (Skolimowski, 1985: 3).

Skolimowski wants to make it clear that a 'return' to religion is not a return to any traditional religion. "Traditional religions have lost their visions; their creative substance is exhausted" (Skolimowski, 1985: 3). But the religious sense of life must be maintained for this is where ultimate meaning resides (Skolimowski, 1985: 4).

#### Knowledge and Religion

The question of whether or not knowledge is related to the sacred is no longer a valid question for Skolimowski but I do believe that the question related to understanding the relationship between the two is relevant.

The role of knowledge in traditional cultures shows itself in their awareness of the structure of wholeness. Devall and Sessions give the example of a traditional Eskimo song to demonstrate this type of knowledge.

*The great sea  
Has sent me adrift  
It moves me  
As the weed in a great river  
Earth and the great weather  
Move me  
Have carried me away  
And move my inward parts with joy  
(1985: 96)*

Traditional cultures were and could still be embedded within 'nature's project' for they were (and to some extent still are) able to live with nature (Skolimowski, 1983: 28). This way of thinking about themselves as a part of a larger whole is part of the religious heritage of traditional peoples. Humans did not create life but they have the ability to destroy or enhance it. In the context of wholeness this will call for a attitude of reverence, or what Skolimowski has called reverential thinking. This is indeed a new way of thinking religiously. Skolimowski wants to show that traditional cosmologies and their religious structures tried to formulate a system of rules that would endeavour to maintain an equalibruim between the natural resources and the demands of that traditional culture (1977: 322).

The relationship between knowledge and religion in aboriginal societies was interwoven. They had the ability to understand the purpose of humanity as a part of a larger frame, within life itself. They had a sense of wholeness and as such developed a set of social rules that kept this understanding, this balance.

Ecological devastation did not just arise at the dawn of the scientific revolution of the 17th century culminating in industrialized societies but a new 'era' of devastation was dawning with this new mindset. Skolimowski has made it clear that knowledge is important for 'right' behaviour. "Knowledge is a necessary condition of human behaviour and human experience" (Skolimowski, 1967: 61). Scientific knowledge

allowed humans to articulate, to manifest, and to form a concept of human knowledge (Skolimowski, 1967: 62). Without such knowledge, states Skolimowski, knowledge of the world would "have been submerged in eternal fog" (1967: 62). Any knowledge that does not relate in any way to our cognitive framework is incomprehensible and is not to be considered as knowledge (Skolimowski, 1967: 63). Any form of knowledge must be meaningful and coherent.

There are two understandings that Skolimowski wants to make clear: that science does not bring about the destruction of human values; that science does not give humanity absolute truth, certainty, and infallibility (1967: 64).

The relation of philosophy to science is clear, that is, the questions posed by scientists constantly involve philosophical issues. All of these cognitive understandings are, in turn, evolving, "of recognizing that science, and all our cognitive products, must be viewed as part of the evolving film as well" (Skolimowski, 1985: 15). Hubner states this a little bit differently but he is supportive of Skolimowski. He states "I will begin with the thesis that it is a historical situation which decides what the scientific facts and fundamental principles will be, and not vice versa" (1983: 108).

The foundation of knowledge and religion is the cosmology within which they reside (Skolimowski, 1985: 12). In Skolimowski's understanding evolution is that cosmology. This is evident in his delineation of the relationship between the

'New Physics' and the 'New Theology'. All are

parts of some larger process of evolution or process of becoming, so that we can say that human knowledge and human spirituality (including religion and images of God) are subjects of the same all pervading evolutionary flow. We have to have the courage of accepting the ultimate consequences of the evolutionary perspective.  
(Skolimowski, 1985: 16)

In order to place science within a wholistic perspective and to, at the same time, become who we are as spiritual beings, both science and religion have to be bound up with reverential thinking. This is true for religion, as a structure that enables transcendence. It is also true for science, for without it science will regress into a reductionistic understanding. "The extension of the ideal of social justice for all the world of all living beings becomes reverence for life" (Skolimowski, 1984: 405). Knowledge must seek to bring about a wholeness, enhance the humanity within us and without us. It must seek to enhance the spirituality within and enable us to see the sacred around us.

Reverence for life is a spiritual principle. It is based upon a deeper understanding of what the universe is about. Let us emphasize that at a certain level of understanding we are so struck with the beauty and the intricacy of the universe that we cannot help but behold it reverently. At this level, our deeper understanding gives rise to enlightenment. This enlightenment generates reverence. It may come as a surprise to a rational thinker that reverence for life is, indeed, a form of understanding.

(Skolimowski, 1984: 405)

Unless we teach and learn that the basic *modus operandi* of Nature, of Evolution, of human societies is symbiosis, given-take, reciprocity, seeing the unity of it all, we shall not secure peace via piecemeal strategies.

(Skolimowski, 1984: 406)

## Religion and the Values of Wholeness

Religion seeks to enable humanity to transcend its current state of affairs. It seeks to give us values that will enable us to be whole and to realize who we are within an evolving history. In doing so a religion 'for our times' must have within it particular values, values that are related to ecological evolution which will in turn be related to a certain way of living.

These values need to be articulated for humanity in such a way that they correspond to those values found in the universe. There is no alienation if the human being is at home within this world. Humanity dwells in a home, the universe.

Ecological values are an integral part of a life sustaining understanding and they should be a part of any new religious structure. The basic values of ecology are, interdependence, symbiosis, reverence, responsibility, frugality, and compassion (Skolimowski, 1989: 159-161). Goldsmith states that the features of a climax ecosystem are "order, teleology, wholeness, co-operation, stability, and internalized control" (1988: 66). Skolimowski, though, is not advocating a 'blind transplant' of values but he is "rather maintaining that the implementation of the laws of the ecological heritage may be an important step to lasting peace" (Skolimowski, 1989: 160). These values must reside within an eschatology or, if you like, an ultimate purpose. In this sense values are related to transcending the moment,

in striving for the sacred (Skolimowski, 1985: 62). The mere doing means nothing, that is, the value of action in isolation has no meaning. Values must be placed in some larger frame. The ultimate purpose of the human condition gives these values meaning, it allows them to be sustaining in that they sustain the human condition, life itself, and thus evolution.

The conception of evolution as a wholistic category is a novel conception. The idea of identifying oneself, as an individual and a species, with evolution and considering it a necessity to do so in a conceptual as well as in an existential way is necessary when evolution is given such a standing. It is necessary because evolution, from such an understanding, holds the values commonly associated with religion. Evolution is a unifying perspective, articulating the human condition and our purpose within life. It enables us to find ourselves. The values of responsibility, frugality, reverence, and self-realization are held within this purpose.

### Religion and Cosmology

I said at the beginning that right peace means the implementation of right values. Now, after closing full circle, I am maintaining that right peace means the development, articulation, and implementation of a right cosmology. This realization may weigh heavily upon us.  
(Skolimowski, 1985: 66)

"If religion is about wholeness, what is the structure of the wholeness appropriate for our times?" (Skolimowski, 1985: 1). Skolimowski has commented that institutionalized

religions, such as Christianity and Buddhism, may well have exhausted their ability to 'nourish' humanity. Yet religion itself is not to be thrown out for a vision of wholeness still needs to be articulated, its structure made explicit. It is within this wholeness that ultimate meaning is found.

Even if one wishes to dissociate oneself completely from traditional religion, and from traditional concepts of deity, one has to acknowledge the religious sense of life for without it life is singularly empty. We have lost the religious sense of life within which the ultimate meaning resides.

(Skolimowski, 1985: 3-4)

The religious sense of life is about wholeness, it is about cosmology. Skolimowski's cosmology is the ground for values and is about wholeness. Evolution, as a cosmology, can now be understood as a religious structure. It is this understanding that Skolimowski has in mind when he wrote his booklet *Eco-Theology: Toward A Religion For Our Times*. His eco-philosophy, grounded upon evolution, has become an eco-theology. This is a recognition of the religious nature of life. There is a structure which is life sustaining. There is a structure which transforms reality. There is a structure by which humans can find themselves, find their identity. There is a structure by which humanity can find unity with the cosmos. There is a structure through which humans can transcend themselves and become sacred.

A sustaining picture of the cosmos usually gives us an illuminating image of what the human person is in this cosmos and the role he/she plays in its overall plan.

Thus we see that neither vagueness nor precision of formulations are factors that count. In the ultimate matters of cosmology and human destiny, vagueness is not necessarily bad and precision is not necessarily good.  
(Skolimowski, 1989: 156)

A sustaining structure, a sustaining cosmology, a sustaining religion must not necessarily be precise or vague but must connect up with an understanding of the human condition. This link is necessary. The interconnections become complex and precision in the articulation of this complexity may not be as important as the sustainability of an articulated view point. As Skolimowski states, "Truth is a subtle and difficult matter. When we look deeper into it, we really do not know what it is" (1989: 155-156).

#### Religion and Dialogue

The search for truth is an elusive one and yet the search must continue. This search is related to the question of the relationship between dogma and dialogue. Skolimowski has made it quite clear that as dogma decreases dialogue increases and vice versa. The openness one has to transcend, to see beyond the narrow confines of one's self or society depend on ones ability to dialogue.

Truth is not, so far as Skolimowski is concerned, a dogmatic statement about reality. It would seem that truth is metaphorical, personal, relational, and meaningful. This does not make truth subjective, as values are not. Religion, understood as a path towards enlightenment and as a structure by which we perceive our wholeness (Skolimowski, 1985: 52), is an openended structure not a set of dogmatic statements.

Heidegger points out that

the essence of truth is not the empty 'generality' of an 'abstract' universality but rather that which, self-concealing, is unique in the unremitting history of the disclosure of the 'meaning' of what we call Being - what we for a long time have been accustomed to considering only as being as a whole.

(1977: 139)

Such a dialogue of disclosure will not just be of words. If Christianity, or any other traditional religion, is to enter into a dialogue with eco-theology it will have to "happen as the result of the creative acts of the living. Through the transformation of our own consciousness we shall live the new path" (Skolimowski, 1985: 54). Dialogue is not simply an act of finding common ground for the description of abstract concepts but a transformation of being into becoming, it is the very foundation upon which any search for truth is based, upon which any religion is based. It is a commitment by the individual involved to enter his/her being into dialogue. Tillich understands that the individual will have to answer the question: what have they made of themselves? In today's world of human artifacts humanity, states Tillich, has lost a meaningful world and the self that participates in that meaningful understanding. "He has sacrificed himself to his own productions" (1952: 139). Yet humanity knows that they have lost something important and so humanity still experiences this "dehumanization as despair...[and this is a] meaningful attempt to reveal the meaninglessness of our situation" (Tillich, 1952: 140). Tillich understands that one's being must be committed to

establishing and understanding meaning in the world through participation.

This type of dialogue is a reversal of our current conception of power. To understand power as the control, manipulation and domination of that which is around one is also to understand truth as dogma. If humanity chooses the path of evolution, a religious path, then tolerance, openness and humility will be the accepted conception of power, that is, the power to transform the individual being. Truth is indeed a subtle and unknown power.

#### Religion and Evolution

I have earlier referred to Skolimowski's understanding of four types of evolution, those being: geological (associated with Lyell); biological (associated with Darwin); conceptual (associated with Popper); and theological (Skolimowski, 1985: 10). A relationship between evolution and theology is not new for people such as Peacocke (1971), Teilhard de Chardin (1959) and others have done so. Yet, a deeper discussion has become necessary if religion is, in my mind, to continue to be a viable option. To make evolution a cosmological and thus a religious conception there needs to be the development of a whole conceptual framework dealing with the interrelated areas of a cosmology.

To begin the discussion of the relationship between religion and evolution Skolimowski touches upon that which he considers the important aspects of Teilhard's evolutionary

vision, those of "complexity, love, [and the] Omega point" (1984: 46).

Evolution occurs through increasing complexity of organisms and systems. Complexity in time breeds consciousness. There is thus this extraordinary bond which could be called complexity/consciousness. The role of complexity in the unfolding of the evolutionary panorama is most remarkable. On the one level, it is a mere description of the degree of organization of matter; on another level (that of consciousness and self-consciousness) it is a creative principle of the transformation of less knowing-systems into evermore knowing intelligent systems.

(Skolimowski, 1984: 46)

Skolimowski goes on to state that "complexity is, then, this process which makes the actual out of the potential. More than this: it even creates the potential" (1984: 47).

In terms of the concept of love, Skolimowski contends that it, like consciousness, is an emergent quality born from evolution (1984: 48). The reason for this understanding is that Skolimowski does not believe that love and consciousness are latent in all that exists, in all matter. If such were the case then he would claim that there is no freedom to develop and evolution would, therefore, become a trivial process. In this understanding he rejects both the Vitalist school of biology and the mechanistic understanding. Skolimowski also rejects any form of dualism such as the relativistic dualism Needham holds (1955). Evolution is not a random process but neither is it pre-ordained, it is a creative force from which there emerge new species, new values, new qualities. It is only from viewing evolution as a creative process that, Skolimowski believes, one can talk

about responsibility and freedom and thus love (1984: 49).

The 'Omega Point' is the destiny or purpose found within evolution. For Teilhard, this point was conceived of as both personal and universal, where time and space become 'humanized', for both the personal and the universal "grow in the same direction and culminate simultaneously in each other" (1959: 260). Skolimowski considers evolution to be an 'arrow' in which there is a 'one way' flow of time. There is no return to the old Christian doctrines, to the 'Garden of Eden' (Skolimowski, 1984: 49). Skolimowski rejects the idea that God had originally made humans essentially perfect and thus it is only a matter of finding the process by which we can manifest our perfection. He rather believes that humans are imperfect with respect to the destiny of evolution. But the destiny of humanity lies within its own hands. "God is spirituality actualizing itself in us" (Skolimowski, 1984: 50).

The view that evolution moves towards an end point, or rather, that it has a purpose is related to the concepts of complexity and love.

In terms of complexity, Skolimowski has stated that complexity is bound up with consciousness. An awareness of the imperfection of the universe would seem to indicate that there are further stages to come. One such stage is ecological consciousness (Skolimowski, 1989: 9). There are certain descriptive values associated with eco-consciousness. These are: evolutionary, participatory, wholistic,

qualitative, spiritual, and reverential (Skolimowski, 1989: 5). This step in evolution is yet another step towards 'self perfectibility', that is, towards the Omega Point. Humans are unfinished, spiritual beings.

The evolutionary plan of self-perfectibility is not a selfish desire for power but rather it is the purpose of life. It demands responsibility on the part of the individual to transcend the self. Salvation rests not in a force outside of each individual but it rests upon each one of us. To be responsible is to be on the path of self-perfectibility, of self-transcendence (Skolimowski, 1985: 24).

This process of self-perfectibility is a humanizing process. The spiritual quest is a quest of self-transcendence. Spirituality, in this understanding, is not a glance back into the past but a life sustaining practice of self-perfection.

Spirituality is a vessel within which the most important characteristics of human beings as humans are contained, and through which they are perpetuated. Spirituality is a safeguard of not only the sanctity of life that we consider sacred, but also of the very life itself.

(Skolimowski, 1985: 25)

Skolimowski has linked spirituality with self-perfectibility. Spirituality is what gives meaning to life in that it links human actions with the purpose of evolution through the stages of evolution. It is an ontological state for it is an expression of the human condition (Skolimowski, 1985: 26).

This evolutionary movement is both an outward and an inward movement. This movement must occur in order for us to

exist, in order for us to be human. The link has been made between evolution, Spirituality (self-perfection), and being human.

### Religion and Consciousness

The rise of ecological consciousness through the process of evolution is a unique event. Unique in that it is a new quality. While the evolution of consciousness is an historical movement, that is, it is rooted in history, consciousness also determines history. In terms of Christianity, the ecological consciousness has interpreted it in a different light and this interpretation is not a movement backward but a movement forward towards the end point of evolution, self perfectibility. Schrodinger believed that "we are...at the moment in grave danger of missing the 'path to perfection'" (1967: 124). He stated that science can no longer remain silent, its ethical ground will need to be re-established and to do this care will be needed (1967).

In this sense the movement of consciousness is a religious movement because such a consciousness promises liberation from the current crises humanity now faces. Wholism is the first step in this movement towards liberation, i.e., liberation from the oppressive technological consciousness of modern society (Skolimowski, 1989: 4). For Heidegger, technology need not be the oppressive for it need not be understood as a mere means, "technology is a way of revealing" (1977: 295). Technology, understood as revealing

truth, stands not as a challenge to the natural world. Heidegger states that the type of technology that does not challenge means that there is a need "to take care of and maintain" (1977: 296). Could it be that in today's society the human need to reveal the truth has become obscured, the revealing process has become destructive through the use of destructive technology? It is important to be reminded that liberation is not simply a liberation from the oppression that lies outside of us but is a liberation within, it is a new consciousness. It is an understanding and not simply a 'fact'. There is meaning connected with this new consciousness.

The healthy and complete human person is a micro-universe which is wholistic and qualitative - there can be no doubt. The human being who seeks meaning beyond the triviality of consumption is on some spiritual path - there can be no doubt either. The quest for meaning is a spiritual quest.

(Skolimowski, 1989: 5)

This new consciousness is part of a vast new whole which seeks to understand the human condition in its relation to the cosmos. Let us remember what Skolimowski said about the relationship between the mind and the cosmos.

To the divine mind the cosmos is divine. To the crass mind the cosmos is crass. To the monkey's mind the cosmos is monkey-like. These propositions must be taken with all seriousness. For it is the mind which rules over the unruly cosmos. Whatever order we have found in the universe, it is one which the mind has invented.

Mircea Eliade is exactly right when he says that the sacred is an element of the structure of consciousness, not a stage in the history of consciousness. Sacredness is an attribute of the mind, not an attribute of the cosmos. Only when we approach the universe with a reverential attitude and behold it by the mind that is sacred, do we find the universe sacred.

(Skolimowski, 1989: 8)

With this new consciousness humanity enters into a world which is revealed as sacred. Humans are able to participate in a world that they view as creative. Humanity views this cosmos with respect and reverence because that is the reality that is found. Humanity now dwells in a sacred cosmos for humanity sees itself as a part of the evolving process of life, as the process of evolution 'speaks' through humanity, through each of us.

#### The Quest For Meaning

Skolimowski, in the fourth chapter of *Eco-Philosophy*, makes reference to the 'Quest for Quality'. This he does through the use of architecture. In this quest Skolimowski relates the overall concept of quality to four different types of quality. This search, he maintains, is sought in architecture in particular and should be sought in all human activities.

The search for quality is clear proof of the fact that we have not lost the sense of the concept and, moreover, that we are transcending the boundaries of technological culture. The search for quality can be seen in unlikely places.

(Skolimowski, 1981: 99)

One such unlikely place is architecture.

The true purpose of architecture is to continue, enhance, and celebrate life. The phrase 'to continue, enhance, and celebrate life' must be seen in its proper context. The industrial sharks who destroy our ecological habitats for profit and often force architects to design anti-life environments can claim to be continuing, enhancing, and celebrating their own lives. Individual greed must not obscure from our view the fact that the eco-system urges various constraints upon us. In addition to our ecological awareness we must have a coherent conception of man and a viable model of culture that is capable of sustaining us in the long run.

(Skolimowski, 1981: 100)

The search for quality is not just an individual search but a communal search that takes place within life itself. This inner struggle to move outward is a struggle for humanity to "transcend their obsession with material acquisitiveness" (Skolimowski, 1981: 101). This is a reorientation, a shift from a technological mindset to an understanding of the quality of life.

Some types of architecture, states Skolimowski, have recognized the social, ecological, and religious aspects of humanity "by acknowledging the spiritual aspects of man's existence and designing spaces in which these aspects can be fulfilled" (Skolimowski, 1981: 103). This understanding is not simply an addition to architecture, but it is a shift in thinking about the organization of space itself, a space that will enhance and celebrate life.

The quest for quality, particularly within architecture, has some broad ramifications, that is, the call for decentralization, the call for appropriate technologies, frugality and durability, and "a new attitude towards work - you cannot have a quality of life environment if human work is

systematically degraded or reduced to stupefying, mechanical, repetitive tasks" (Skolimowski, 1981: 104).

At the end of the chapter Skolimowski admonishes us not to blame everything on 'the system', as he calls it. He claims that this would be 'too easy'. It is indeed an inner struggle in which each of us must have an experience of caring, of an inner connection with the environment (Skolimowski, 1981: 105).

With reference to architecture Skolimowski just touches upon the aspect of religion. The question as to the relationship between religion and the quest for quality remains unclear in terms of defining that relationship. The definition of quality, like that of religion, is impossible to absolutize in any articulated form.

What I mean (and what everybody else means) by the word quality cannot be broken down into subjects and predicates. This is not because Quality is so mysterious but because Quality is so simple, immediate and direct... Quality cannot be defined...If we define it we are defining something less than quality itself.

(Skolimowski, 1981: 99)

Skolimowski has related quality to the phrase 'continue, enhance, and celebrate life'. It is in this context that religion has entered into the picture, for this is how he starts Chapter five of *Eco-Philosophy*, "Religion as a Life Enhancing Phenomenon". Here he talks about life having a quality of vision, of purpose, of eschatology. "Sooner or later life in us will alter those destructive structures which threaten not only human societies but a larger heritage of evolution" (Skolimowski, 1981: 107).

Life has become God-like, or to use a Bohm-like metaphor, Life is God. Bohm and Peat, in defining what a metaphor is, use the example from Shakespeare where he declares that 'all the world is a stage'. In this example A = 'the world' and B = 'the stage'.

The corresponding metaphor then takes the form of A = B. But commonsense dictates that the world is not a stage and therefore A ≠ B. The metaphor therefore appears to involve a simultaneous equating and negating of two ideas, concepts, or objects.

(1987: 33-4)

For Skolimowski life could be called divine. Now I have come full circle for once again I need to talk about the primary function of religion. Religious structures are those "that provide a framework for the ideals which are inspiring and sustaining to our life" (Skolimowski, 1981: 108). The role of religion and quality is that of the enhancement of life, in this sense it is also transformational, that is, humanity seeks to mirror the attributes of the deities that they have made. Religion, as does the search for quality, transforms our perceptions and thus it transforms "reality with a view to making man unselfish and altruistic" (Skolimowski, 1981: 108).

I stated earlier that evolution has a purpose, an eschatology. If Skolimowski is to reconstruct our current metaphysical reality there has to be this deeper element to the reconstruction.

Any large scale movement which attempts to replace empiricism must find an antidote to the gospel of material progress, must be capable of creating a new foundation for meaning.

(Skolimowski, 1988: 124)

Traditional religions have failed to wrestle ultimate meaning from the current destructive philosophies of society. They have failed or seemed to have failed to address these problems now facing humanity. Yet Skolimowski maintains that at the heart of any metaphysical reconstruction, the religious sense of life, the sacredness of our home must be present.

Any thoroughgoing metaphysical reconstruction must find some answers to the deepest problems that have always fascinated and troubled the human mind - and these are the problems of human destiny, a dilemma which is ultimately religious in nature.

(Skolimowski, 1988: 125)

This relationship between religion and quality has an epistemological side. The current epistemology is based almost solely on abstraction and objectivity and this is not the only way of knowing. Kohak calls for the 'bracketing' out of such abstractions and objectivity in order to 'see' again (1984: 202). There are other ways to understand the world which are religious in nature. Ecological evolution and theology are not separated from one another but are understood as interrelated. This is to say that "an epistemology of life has to be created" (Skolimowski, 1981: 110).

The religious sense of life is that of embracing humanity within a larger frame. Humans will find themselves not only dwelling within their home but also co-creating that home.

That they not only see the universe and themselves as sacred but they create the sacred universe. Evolution is a part of the religious structure in that there is the continual creation of new sensitivities, new windows through which one can view reality and create reality. Through the creation of sensitivities people become both divine and human.

Through sensitivities evolution is articulated.

Through sensitivities the mind of the human being is created.

Through sensitivities the scope of our humanity is delineated.

Through sensitivities matter is transformed into spirit.  
(Skolimowski, 1984: 28-29)

The quest for meaning is a religious quest. Meaning is only arrived at through context, and language, along with other tools, tries to convey this context and thus meaning to others. Here, the conception of technology should be understood as being responsible for something else, the other, and to be indebted (Heidegger, 1977: 290-1). This is an act of faith. Humanity must have faith that there is meaning in the universe. "Faith is thus the cornerstone of meaning, a precondition of our life" (Skolimowski, 1984: 60). Humanity has understood meaning through the transformational capacity of the tools that they have, and this meaning is based on faith. Skolimowski has stated that evolution is teleological, as human life is, that is, it is directed towards the transcendent. In order to create this future, humanity must have faith in such a vision, and it is in this sense that faith is a condition of our being (Skolimowski, 1984: 60-61).

Skolimowski wants to also make it clear that "the terror of this realization must not be a license for arrogance but an invitation to humility" (Skolimowski, 1984: 164). The creation of new sensitivities is bound together with empathy, responsibility, caring, and to a sense of humility.

### A New Religion

The search for new religious bearings is not limited to the western World and the Christian culture. This search can be seen the world over. Religion is a most mysterious aspect of man's being. So often it is found oppressive, a kind of prison which we are impatient to leave. When we find ourselves out of this 'prison', we also find that something is missing. Thus we cannot live with religion, and we cannot live without one. It is obvious, in our time, that traditional religions have exhausted their creative substance.

(Skolimowski, 1985: 51)

Skolimowski's Eco-theology is a statement concerning the spiritual condition of a universe which is evolving and which is home for humankind, "for it is this universe which has engendered, nursed and nurtured spiritual qualities which eventually made our Oikos sacred" (Skolimowski, 1985: 55). Eco-theology recognizes the process of divinization of the universe and of humanity. This process is not a devaluation of our humanity or of the ontology of the world around humans but it is a process by which we become human.

According to Skolimowski Eco-theology also provides a different understanding of God. God is within us, that is, the eschatology of the cosmos is the self-perfectibility of it. It thus redefines the divinity of humanity as the process by which humans become divine (Skolimowski, 1985: 55).

Eco-theology is also understood as a unifying process. It unites the sciences with religion, for it unites individual ontology with the ontology of the universe. Because of this unifying understanding it spells out a conception of "human liberation based on creativity, responsibility, self-reliance, all of which are rooted in the notion of the self-creative character of the universe, of which we are, as God-in-the-making, a part" (Skolimowski, 1985: 56). The sacred is a part of human consciousness and as such we don't as much discover the sacred as we co-create the sacred around us. Humans, as is life, are meaning makers.

Evolution not only creates diversity but also articulates an underlying unity. Eco-theology can give humanity a new sense of wholeness. But this new understanding is achieved by our own effort, when we take life into ourselves, no one else will do this. This new vision of wholeness "is reaching out to the transcendental heaven, to the sacred, while our feet are firmly on the ground and our own person is in the service of others" (Skolimowski, 1985: 57).

As our condition changes from the amoeba to sentient beings, we enlarge our consciousness. As we enlarge our consciousness, we reach upward toward self-consciousness. As we acquire self-consciousness, we reach for understanding. As we reach for understanding, we reach for meaning. As we reach for meaning we reach for grace. As we reach for grace, we reach for God. All is natural, and in a sense inevitable - when the cranium of the brain becomes a source of light.

(Skolimowski, 1985: 59)

**CHAPTER FIVE**

## A RELIGIOUS SOLUTION

The Religious solution could be legitimate only if it reflected a fundamental awareness of God's living presence. A religious solution to the crisis of reason in a meaningless world cannot be a theoretical one, adding a theological plank to a metaphysical one, recovering our lost awareness of the world as the Lebenswelt Gottes.

(Kohak, 1986: 106)

It is to this new resolution to reassert our indivisibility with life, to recognize the obligations incumbent on us as the most powerful and deadly species ever to exist, and to begin making amends for the havoc we have wrought, that my hopes for a revival and continuance of life on earth now turn. If we persevere in this new way, we may succeed in making man humane...at last.

(Mowat, 1984: 405)

### The Perception Of Crisis

There are those who understand that, at this point in history, humanity is facing a crisis and that this crisis is environmental and technological. I believe that, at a fundamental level this crisis is one of reason and morality in which humanity's ability to act and think in certain ways has been eroded or damaged. Unlike a machine, these repairs require more than a simple replacement of a damaged part. Skolimowski has suggested that there is no such damage and that the crisis is rather to be connected with evolution, characterized by a 'sacrificial' shift in consciousness. In any case, there is a perception that current reason and

morality are inadequate for us to live in the 21st century.

Kohak, near the beginning of his article *The Crisis of Rationality and the 'Natural' World*, asks the historical question as to what will guide us into a mature and responsible species.

It was the nineteenth century, recovering from the shock of war, that stumbled upon rather than forged the answer to which we have fallen heir - that science and its offspring, technology, will provide the guidance. At a loss as to how to bring about moral progress, the nineteenth century set about transforming the material world, blithely assuming that moral growth will follow automatically in the wake of scientific and technological advance.

(Kohak, 1986: 86)

He states that science has failed to bring about such moral growth. This, for Kohak, is the crisis. The question is: why has science failed to bring about such growth? Kohak gives the answer through a phenomenological diagnosis. "The great error was its attribution of the ontological validity to its own idealizations until it came to regard them as reality itself, dismissing the one reality actually accessible to us, that of lived experience, as merely a subjective reflection" (1984: 88). Science, for Kohak, had dismissed the world of experience, the meaningful world, as merely subjective. With this rejection all "reflective judgements" become conventional or arbitrary. Both Kohak and Skolimowski reject such an understanding of morality.

For Skolimowski, the mind plays an important role within evolution. The mind is the organic structure that can

recognize the universe as sacred or as a machine. Both thinkers have agreed to is that nineteenth century science has been inadequate for humanity and has not allowed us to 'see' a moral and sacred universe. Without a faith that understands reality as meaningful Nihilism is the end result. Both argue that to 'see' reality as moral is not a subjective statement but it is a statement related to a subject. Reality is personal. Scientific language has become unclear with respect to any meaningful understanding of the words 'objective' and 'subjective'. In modern physics as well as in ecology these terms may be irrelevant to any meaningful understanding of reality.

This thesis is not an investigation into the philosophy of the perception of reality as 'crisis' but it is important to realize two things: 1) that reality is rooted in the subject. This does not mean that knowledge or the sacred is subjective or individual. The conception that humanity is at a crisis point is then rooted in the subject but it is not subjective. It is a reality that persons have perceived. This reality, once perceived, is a changed reality. It has become a meaningful reality. "The act of comprehension is at the same time the act of transformation" (Skolimowski, 1984: 112); 2) that the perception of crisis, being rooted in the subject, is not an absolute reality. It is a relational reality and is subject to evolution, as knowledge should be. In this sense, dialogue becomes important to understand reality.

The crisis is real and it needs to be addressed. What is at stake is not only the environment, the cosmos, but also our humanity and a vision of a moral and sacred universe.

### Evolution

For Skolimowski, evolution has eschatological, cosmological, epistemological, and spiritual dimensions. "To understand the nature of evolution is to understand how it transcends itself" (Skolimowski, 1984: 41). It holds the key to understanding who we were, are, and ought to be. This view is echoed by Teilhard (1959), Keener (1983), Cobb, Jr. and Griffin (1976), Bookchin (as found in Shulman, 1985), and Wicken (1989).

The ability to think along the lines of process and development, rather than compartmentally, analytically, and statically, enable one to collapse the 'dualisms' associated with analytical and compartmental thinking, whether they are the dualisms of freedom and necessity or nature and society. If, for example, evolution is understood as a process of chance and necessity, then there truly is a fundamental split between nature and society. On the other hand, Wicken has suggested that "evolution might be better understood as a process of ongoing creation than as a gratuitous production of chance" (1989: 157). Wicken also suggests, as does Skolimowski and Teilhard, that "it may be that the thrust of the evolutionary process is toward the perfectibility of humanity within a just society" (1989: 170). Wicken goes on to seemingly reiterate the words of Skolimowski, in that if

humanity is to understand itself within evolution, then the 'sensitive self', that is, consciousness (reflective thought) must be taken seriously. "[F]or that, we need an evolutionary ecology of the mind" (1989: 170).

With regards to teleology within evolution, Collins states that when the evolutionary biologist asks the question 'why?' it is not a question of purpose in any teleological sense but rather it is the historical 'how come?' (1986: 270). Many evolutionists have continued to close their minds to the question of a teleological explanation for evolution. Collins states that the question of 'why?' is often reduced to the analysis of the maintenance of a specific trait, yet Collins wants to put a qualifier on such an argument. The answers found in this type of analysis "should be framed carefully with the awareness of the relative effectiveness with which selection of different levels of organization can act in order to influence the final expression of a trait" (Collins, 1986: 287).

The question is: Does humanity exist to further certain traits within evolution? Sociobiology states that humans, specifically individuals, exist to propagate their own genes, a genetic selfishness. Morality only becomes 'real' as it furthers this genetic selfishness. Wicken rejects this notion as does Skolimowski.

Evolutionary theory is central to this mapping out of conditions in which theology must operate, for evolution locates humans in nature as products of, and actors in, cosmic process. Mainstream Neo-Darwinian theory is unable to provide this bridge, since its genetic

reductionism prevents it from connecting life with the rest of nature. Neo-Darwinism is hopelessly over its head in connecting the human spirit with its resources. (Wicken, 1989: 160)

Wicken states that such a reductionism errs, in that it is unable to understand organisms as historical beings and as "selfreferential ecological entities" (1989: 161).

Skolimowski makes it clear that the experiencing self is as much a product of evolution as is the genetic self and in fact the two are linked. Evolution is as much a metaphysical process as it is a physical process. Bohm and Peat also make such a statement, implicitly, when talking about the concept of stable structures found in the 'process' of becoming, that is, the idea of generative fields which generate order within evolution. This "is of crucial importance not only for an understanding of inanimate matter but also for living beings, consciousness, and society" (Bohm & Peat, 1987: 144). These generative structures are metaphysical in nature, structural orders beyond space and time. Bohm calls them implicate orders. The implicate order is wholistic in nature as it relates to the structure of reality (Bohm & Peat, 1987: 202).

Lovelock, with his Gaia hypothesis, has moved to a wholistic understanding when he states that the earth itself is a living being. "To me it was obvious that the earth was alive in the sense that it was a self-organizing and self-regulating system" (1988: 31). In his cybernetic understanding of the earth he rejects the idea of an established end point of evolution, "it just settles down, like a cat, to a comfortable position and resists attempts to

dislodge it" (Lovelock, 1988: 61). But Gaia does have a telos in that it seeks

a planet fit for life. If humans stand in the way of this, we shall be eliminated with as little pity as would be shown by the micro-brain of an intercontinental ballistic nuclear missile in full flight to its target.  
(Lovelock, 1988: 212)

For Lovelock, Gaia is both spiritual and scientific, both wholistic and reducible. Yet he has failed, in my view, to recognize the emergence of the whole within the part, the emergence of consciousness within a single species (as far as we know) and all this within the process of evolution. This is important for Skolimowski for it gives evolution a definite direction.

For Teilhard evolution has a direction. He writes, in *The Phenomenon Of Man*, that the emergence of the nervous tissue provides a direction for evolution and this, for him, "proves that evolution has a direction" (1959: 146). Evolution has proceeded from geogenesis to biogenesis, which expresses itself in psychogenesis (Teilhard, 1959; 148). This closely corresponds to Skolimowski's four part evolution.

For Skolimowski and Teilhard the seemingly 'dualistic' nature of the cosmos between society and nature can be resolved within an understanding of evolution. This dichotomy is resolved in evolution, between the transcendent and the physical (Teilhard, 1959: 169). It is this final process that Teilhard wants to talk about, that of psychogenesis, of thought. It is in this process of evolution that thought is associated not only with a single species but with evolution.

It exists because of an interplay between unity and diversity.

We are not only concerned with thought as participating in evolution as an anomaly or as an epiphenomenon; but evolution as so reducible to and identifiable with a progress towards thought that the movement of our souls expresses and measures the very stages of evolution itself. Man discovers that he is nothing else than evolution become conscious of itself, to borrow Julian Huxley's concise expression.

(Teilhard, 1959: 220)

The association of complexity with consciousness is not new. In theology, for example, Cobb and Griffin have placed this evolving complexity with God's creative purpose (1976: 64). They equate greater complexity with greater enjoyment, a harmony which is associated with God's divine purpose.

One of the key components to understanding transcendence, harmony, humanity, and nature is to examine the structures of relationships as they relate to the process of evolution. There is an emergence of structures involved in the 'whole' of evolution in which there is a complex interaction between the internal and external aspects of evolution.

Evolution constructed as a cosmology may not be unique to Skolimowski but the binding together of freedom, responsibility, epistemology, eschatology, and transcendence (the sacred) all within the process of evolution is of crucial importance. Evolution can answer the basic question of meaning in the world in a meaningful way without being absolute (dogmatic). It demands dialogue and not dogma from the universe. Metaphor becomes the basis for reality and not objective fact. Existence is characterized by being and

becoming based on the interrelationships of all beings. If absolutes are not to be found and relationships are foundational to existence then dialogue will continue. This dialogue will be life-enhancing and transcendent. It will, therefore, be religious in nature.

Skolimowski has contended that such terms as symbiosis, interrelation, complexity, wholism, etc. are not only descriptive terms but value terms. Norton has suggested that these terms led Aldo Leopold to develop a 'contextual' approach to environmental management which was expressed through the use of organic metaphors (1990: 121). This contextual approach to environmental management can be found in a relatively new theory of environmental management called Hierarchy Theory. There has been a continuing tension within ecology between a) population-community ecologists and b) process-functional ecologists (O'Neil, DeAngelis, Waide, and Allen, 1986: 8). For ecologists in group A the focus has been on the conception of ecosystems as networks of interacting populations where as the ecologists in group B see ecosystems as "composed of physical-chemical-biological processes active within a space time unit" (O'Neil et.al., 1986: 9). Controversies continue over the ideas of complexity, cybernetic organization, instability-stability, and hierarchy. In the final analysis, specifically when investigating hierarchical systems theory, the way one views reality depends upon one's view point.

Depending on the spacio-temporal scale or 'window' through which one is viewing the world a forest stand may appear as 1) a dynamic entity, 2) a constant backdrop, 3) an inconsequential noise in major geomorphological processes.

(O'Neil et.al., 1986: 83)

Yet "it does not appear that we are artificially imposing this hierarchical structure for the convenience of explanation. This is what we experience" (O'Neil et.al., 1986: 121). In this instance, though, it is a good idea to remember Rumi's metaphor of the blind men and the elephant for it continues to be relevant for ecological management as well as for any meaningful understanding of reality.

The significance of the above quotes is that it combines consciousness in any understanding of reality with out denying reality itself, that is, there is a reality that "I" can know. Reality is relational and metaphorical. This is echoed by Goldsmith. "Qualitative language is more flexible and can be used to express vivid metaphors that provide a more accurate picture of the ecosphere than can the more precise language of mathematics" (1988: 165). With such controversy between whole and part, Hierarchy Theory provides a unity. As Bohm and Peat state.

At present the word hierarchy...contains the tacit idea that the lower parts are dominated by higher ones. But in the spirit of generative orders it is possible to consider hierarchy in quite a different sense...Rather the general is now seen to be present concretely, as the activity of the generative principle within the generative order. This suggests a new notion of hierarchy, in which the more general principle is immanent, that is, actively pervading and indwelling, not only in the less general, but ultimately in reality as a whole.

(1987: 164)

This conception of hierarchy is very close, in my view, to the conception that Skolimowski has of evolution writing its story through him. Here the general pervades the specific and pervades all reality. This is a dynamic dialogue that expresses itself through the selfconscious human species by enabling us to become responsible and to have compassion for life and evolution.

### Value And Knowledge

Skolimowski has stated that there is a very intimate relationship between knowledge and values. Knowledge is fundamentally connected to who we are, to our being. Thinking 'correctly' can change the structure of our mind and create a new reality, a new cosmology. Therefore, knowledge is related to thinking reverently, enabling us to transcend the destructive structures of society. It enables us to regain a moral insight, to liberate us from the moral vacuum of today's society. Skolimowski, therefore, shows us the interconnections between knowledge, ethics, and cosmology.

This epistemology rests on a new perception of the universe and ourselves. For Kohak, this new epistemology must recognize the world as personal. He states that "it is reason reflecting on the empathic identification with the Other that opens us to an awareness of that moral law" (1985: 34). This overlapping of reason and morality is echoed by Rolston (1981: 60) and Bohm and Peat (1987: 14).

Bohm and Peat go on to give an evolutionary view of knowledge when they state that "any search for absolute fixed

knowledge is illusory, since all knowledge arises out of shifting, changing activity of creative perception, free play, unfoldment into action, and its return to experience" (1987: 56). "Knowledge and reality does not, therefore, lie in the subject, nor in the object, but in the dynamic flow between them" (Bohm & Peat, 1987: 67). The understanding of reality in experience is, indeed, what enables us to understand reality as moral, as sacred, and the particular individual as imbedded within the natural order and as sacred. We do not understand the world to be a thing, an it, but as a 'thou'. The ontological order is not built upon isolation nor domination but on compassion and reverence. These values are found within the natural order as they are found within humanity. These thoughts of Skolimowski are again recited, in a different way, by Bohm and Peat.

It is the view of this book that the potential for creative perception is natural. Creativity originates in the depths of the generative order, and the proper role of mental energy is to respond to such perception, and ultimately to bring it to some manifest level of reality.

(1987: 250)

The openness to a religious understanding involves opening up to the presence of other beings, the experience of the sacred. When humanity reduced the experience of the sacred to a subjective feeling they tended to elevate the conception of human rights to be the supreme values within a society and as such humans became the measure of all and the only meaning giving creatures in the universe. Other beings had no meaning unless given to them by humanity, they were

'its'. There is no responsibility to a higher order outside the isolated individual. Skolimowski argues, and rightly so, that responsibility for the diversity of life, to treat all life as an end and not as a means only, comes not from an extension of human rights but from understanding all life as sacred in its unity and diversity. Skolimowski does not use rights language.

Our understanding of the structure of reality is not just a creation of the human mind as formed by an isolated brain. The mind is a part of a larger reality, that is, an interactive reality where our ethics and knowledge "is based upon a dimension of reality itself and not just upon conventions" (Klostermaier, TGN: 7). Klostermaier goes on to state that the "moral consciousness is as 'natural' a part of consciousness as consciousness is a part of nature" (TGN: 11).

The understanding that the 'within' and the 'without' are woven together still leaves us with the problem of actually seeing correctly, that is, of actually knowing what is good. In this instance, traditional religions have sought to clear away the illusions in order to actively bear witness to the truth. As to the question of truth, truth is related to an understanding of being, becoming and meaning.

It was Reinhold Niebuhr who stated that individuals have a moral sense that insists that they think of others. This moral sense is linked with humility (Harland, 1960: 135). For Wicken, this moral sense is an evolutionary product which is

based on a deeper level of understanding.

We have two generally evolutionary sources of value, both of which contribute to the relational ontology of life. One reaches downward from individuals to raw materials of environments, relating to life as meaning-investor to nature as elaborating repository of meanings. The other reaches outward from individuals as "selfish" surviving-reproducing systems to ecosystems, and systems of ecosystems, that contextualize selfish interests within higher-order functional frameworks - so that there is a sense in which the whole community interest is written into the individual adaptive strategy.

(1989: 172)

The example he uses to demonstrate such an understanding is that of nitrogen-fixing bacteria. Their own success for reproduction and their service to the other is linked through the fixation of nitrogen. "Its 'value' is its existence". It is a functional framework of parts and whole. These co-defining relationships underscore the fact that life is the creator of meaning and of value (Wicken, 1989).

The creation of value by life is real, value is present because of existence. Yes, value is related to individual existence but that value is always related to others that exist, other beings. There is a part-whole relationship that is necessary to take into account when valuing creation. It is through courage that humanity affirms value in the world, in life, and that value is not something illusory. Tillich makes a bold statement in that "this courage is effective in all beings" (1951: 194). This courage to affirm a finite and transitory yet real existence is a courage not found in a secular world but in a sacred world. For where else can courage come from but through an ability to see life as

transcendent. The courage to be altruistic is not found outside of existence but within it.

To puzzle over the adaptive sources of "altruism", as most evolutionists do, betrays a certain peculiar inability to understand the historical sense in which wholes are manifest in parts...laws and moral codes are not really for curbing the cosmic process at all; rather they constitute the human contribution to the direction of this process in the generation of meaning.

(Wicken, 1989: 174)

In this sense, knowledge is related to meaning and value in that it provides an understanding that is relational in orientation. Relational in terms of part-whole and biological-spiritual understanding. Tillich refers to this form of understanding where he states that this type of "knowledge is a form of union" (1951: 94) and as such it has a healing and transforming ability as well as fulfilling (Tillich, 1951: 95). It is this association of knowledge to transformation and healing that Skolimowski, so rightly, puts forward. The problem of absolute knowledge is now thrown out by a deeper felt evolutionary need to relate knowledge to context, to evolution and to the ability of knowledge to transform and transcend. For knowledge to do so, it must be related to both the whole and to the part, that part is, in particular, humanity. The transforming power of love, that love is real and rests within our capacity of understanding and responsibility, is a meaningful transformation enabling us to 'see' correctly. Love moves beyond the self. It is an "ecological self-transcendence" (Wicken, 1989: 174). To understand is to participate in that understanding, to give it meaning and to realize meaning. Knowledge is no longer an

objective understanding but it is related to who I am. It is fundamental for understanding others and life itself.

### Freedom and Responsibility

Lovelock, in his book *The Ages Of Gaia*, set up a model in order that his theories might be tested, for example, that of planetary homeostasis. He called this model Daisyworld. It has a world that spins like the Earth and goes around a star. On this world the principal plant species are daisies.

What is it, then, that confers the great stability and freedom from cyclical and chaotic behaviour on the Daisyworld models?...It is the close coupling of the relationships which constrain both daisy growth and planetary temperature that makes the model behave.

(Lovelock, 1988: 52)

Lovelock adds to this conception of freedom. When interpreting the survivability of a species "it is necessary to add that the growth of an organism affects its physical and chemical environment; the evolution of species and the evolution of rocks, therefore, are tightly coupled as a single, indivisible process" (1988: 63). Lovelock demonstrates that the freedom to evolve in certain directions is a planetary process. In this understanding, relationships are primary and freedom is developed within this framework. Responsibility is tied up with this framework because evolution is a wholistic movement and does not just involve isolated change. To become free is to understand the relationships the individual has with other beings, Being itself, and life. As Lovelock points out, "life is a planetary-scale phenomena" (1988: 63).

Diversity may be regarded as a source not only of greater ecocommunity stability; it may also be regarded in a very fundamental sense as an ever expanding, albeit nascent, source of freedom within nature, a medium for anchoring varying degrees of choice, self-directiveness, and participation by life-forms in their own evolution.

(Bookchin, 1986: 31)

Bookchin feels that within evolution freedom has been born out of diversity and that evolution, therefore, proceeds along the participation of individuals within this larger frame. He goes on to state that a species that does not recognize its responsibility to evolution 'betrays' their own species (1986: 34). This betrayal could lead, in the case of humanity, to the loss of our species along with countless others. For Bookchin, ecological evolution is the grounding for moral choices, human freedom, and, therefore, human liberation and individual empowerment. Skolimowski agrees with this point of view. Liberation is the responsibility of the individual to participate in a larger frame, i.e., evolution.

Responsibility is a personal obligation yet it has consequences beyond the self. It is my belief that individual responsibility and thus the choices one must make and be responsible for are not tragic 'possibles' but liberating 'possibles'. It is possible that I will make a life-enhancing choice or a life-destructive choice or both may happen from a single choice I make. In any case, the possible choice does not become tragic because of the consequences of the choice made, but rather the choice is liberating because I have the freedom to become responsible, to be a steward of life, and,

therefore, to realize my sacredness. The desire for liberation is rooted in my responsibility in this sense individual choices are no longer seen as isolated either in the choosing or in the consequences. When the choice is a meaningful one and, therefore, a responsible one it will be a liberating choice.

The responsible choice and thus freedom has ontological foundations. When making a choice one has to have a 'feeling' of certainty about that choice, that is, that it will be life enhancing. Kohak is right when he states that moral choices must have moral grounding (1986: 89).

The world of our lives is not defined simply by the interaction of one subject-body with other bodies in space. It is a human world, one defined by the presence of moral-subjects whose relationship to others are from the start not spatial and causal merely, but meaningful relations informed by empathy and responsibility.

(Kohak, 1986: 92)

The transformation of the individual is of critical importance to the conception of freedom. To see others as objects is not to take freedom responsibly, as liberating. We must see all species, all life, and all matter as participating in being and, therefore, understood to have intrinsic moral worth.

"Spirituality is the capacity to invest with meaning. We seek clarity within a world of meaning" (Wicken, 1989: 168). A being that participates within evolution, that is not preordained, must be responsible. The vision one has needs a responsible articulation if humanity is to move evolution in the direction of transcendence, of enhancing life. This is,

as Wicken points out, an ecological and historical view of freedom and responsibility for meaningful liberating choices lie in the part-whole relationship.

The freedom to choose must be combined with responsibility to care, to 'see' a field of care as Heidegger conceptualized it (1977: 199). It is in recognizing the other as thou that freedom bursts forth and responsibility becomes a joy and not a burden. To understand life as a whole-part relation, humanity will reason that the meaningful choice is the responsible choice, the moral choice. Life is not selective, not relegated to an elite. All is moral or nothing is.

Any philosophy that establishes a category of beings exempt from moral considerations can always include subcategories of humans within the exempt category, and invariably does.

We can only survive by being God in the crucial respect - that God is love.

(Kohak, 1985: 41)

Liberation, therefore, is not found in the culmination of history with the eternal. It is not found only in some future state. It is the ability to be transformed within this life, to see the sacredness of the universe and to make life-giving choices in the here and now. Klostermaier is, I believe, correct when he states that "historic liberations have always become beginnings of new forms of domination (1985: 63). Freedom must, then, be disassociated from domination, greed, and destructive competitiveness. If freedom is indeed to be found within ecological evolution then order, teleology, cooperation, wholeness, stability and symbiosis must be

primary over and against competition, isolation, instability, and dominance (Goldsmith, 1988: 66). At each stage of human evolution, love, compassion and reverence must be seen as the primary forms of evolution.

### Being, Becoming, and Meaning

One of Skolimowski's concerns is that of meaning as it relates to this world of being and becoming. In traditional religions, such as Buddhism, a central understanding of this world is that of becoming (change) understood as an illusion. The linkage between the cosmos as becoming and finding liberation from this world is that of having a "correct" perception of this world, of the cosmos, and this leads one to salvation. Both the traditional religions of Islam and Buddhism view the cosmos as interrelated, that there is a unity of the self with the divine or that which lies beyond being, and the submission of the self to this larger frame of reference.

In modern times Prigogine and Stengers ask a very important question about the nature of reality as it relates to ontology. The question comes after a look at classical dynamics and the second law of thermodynamics, where the first is reversible and the latter irreversible, one eternal, the other evolutionary. It is a question of the relationship between permanence and change.

The forces of interaction described by (classical) dynamics cannot explain the complex and irreversible behaviour of matter. Ignis mutat res. According to the ancient saying, chemical structures are creatures of

fire, the results of irreversible processes. How can we bridge the gap between being and becoming - two concepts yet both necessary to reach a coherent description of this strange world in which we live?

(1984: 209).

What they argue is that the synthesis is between order and chaos. This seems to be close to what Skolimowski has said about evolution.

Time dependent, one way processes, are not merely aberration or deviations from a world in which time is reversible. If anything, the opposite is true, as it is reversible time, associated with "closed systems" (if such, indeed, exist in reality) that may well be the rare or aberrant phenomena.

What is more, irreversible processes are the sources of order - hence the title Order out of Chaos. It is the process associated with randomness, openness, that lead to higher levels of organization, such a dissipative structure.

(Prigogine and Stengers, 1984: xxi)

Being and becoming, therefore, express two important facets of reality. Becoming is linked to the points of bifurcation and being is linked to the order of the universe that exists between these points. These bifurcation points are linked to ethics, right perception, and meaning.

There is a need for new relations between man and man and man and nature. We can no longer accept the old a priori distinction between scientific and ethical values.

(Prigogine and Stengers, 1984: 313)

Skolimowski reiterates this evolutionary call to connect knowledge and ethics. This is a call to relate existence with ethics in the process of becoming and this linkage becomes very important in humanity. There is a definite ethical component to becoming as Prigogine and Stengers perceived. Tillich affirms such a joining between ontology and ethics,

in his case, ontology and the divine life (1951: 255).

Bohm and Peat make the argument that the relationship between the eternal order (the generative orders) and the temporal orders is one of 'interpenetration'. These orders interact to make an overall order (1987: 198). These orders effect each other and so ethical considerations enter in. If in fact the ability to perceive the 'good' can be damaged in some way, if the damage to the generative order is such that goodness is no longer generated then this might mean the end of existence itself.

Being and becoming are good and, I believe, that the ability or inability to perceive this may be as much biological as learned. The ability to see being and becoming as good is to judge, in the sense of value. This ability to value, as stated above, "is a natural function of humans - a function which is essential for the very survival of humans" (Klostermaier, TGN: 5). The process of valuing is essential for meaning and truth. "The 'natural' world is not a world of naive perception but rather the world as a meaning context, constituted by our incarnate presence as moral subjects" (Kohak, 1986: 100). Bohm and Peat also share this view of meaning as having "intention, purpose, and value" (1987: 245). It is an existential engagement that leads to a judgement, a question of value.

The understanding that meaning is a part of the teleology (becoming) of the evolutionary process is given by Wicken.

Life creates relation as meaning structures. These structures, born of the goal directed activity of life to produce and reproduce itself, are the concrete objects of knowledge of all life, and their "objective descriptions" are assuredly not detached descriptions but contain always the formative process of the knower...These meaning structures emerge in the context value that merges into those human systems of values that are religions.

(1989: 170-1)

Life creates meaningful understandings (found in the part-whole relationships) that enable a single species to perceive the truth and goodness of being and becoming and to, therefore, enable one to participate in this meaningful action. To say that goodness is relative and found only within the individual is to deny the contextual approach to meaning, truth, being, and becoming. If it is the case that meaning and truth rest upon the individual to create them, then the annihilation of meaning and truth can just as easily take place within each individual. This would truly be metaphysically tragic for the perception of a meaningful whole and a meaningful individual could be made forever extinct with the passing of an individual. This would make life meaningless. Skolimowski does not understand meaning to be individualistic, rather meaning is found in evolution. He has also pointed out that humanity is not a pawn in this construction of meaning.

KÜng states that to find life meaningless is possible and, in some sense, irrefutable.

There is no rationally conclusive argument against the possibility of nihilism. It is indeed at least possible that this human life, in the last resort, is meaningless, that chance, blind fate, chaos, absurdity and illusion rule the world, that, in the last resort, everything is contradictory, meaningless, worthless, null.

(1981: 423)

There is a fundamental uncertainty of life, yet, reality understood as meaningful must not only be conceived of as such but must also be perceived as meaningful (Kohak, 1986: 106). Reality must be experienced as meaningful or any solution to nihilism will be superficial at best for it will eventually be discarded. A meaningful world must be perceived. I want to assert that there is a correct way of 'seeing' and that we can find this path.

The search for meaning for humanity is tied to the way humanity discloses being and becoming, how humanity experience them.

'Truth' is not a feature of correct propositions which are asserted of an 'object' by a human 'subject' and then 'are valid' somewhere, in what sphere we know not; rather, truth is the disclosure of beings through which an openness essentially unfolds.

(Heidegger, 1977: 129)

It is within this openness to being and becoming and to that which these point to that one finds the proper limits to behaviour. Rights language, I believe, is inappropriate for the governance of behaviour (Zimmerman, 1983: 119).

-to let beings be- does not refer to neglect and indifference but rather the opposite. To let be is to engage oneself with beings...To let be- that is, to let beings be as the beings which they are- means to engage oneself with the open region and its openness into which every being comes to stand, bringing that openness, as it were, along with itself.

(Heidegger, 1977: 127)

There must be participation within the process of evolution to allow being to be and to become. This is to engage in truth and meaning and, I believe, to be open to the perceptual shift that would be necessary for such participation. "To be is always to be with. Being is always being-with-another" (Baltazar, 1965: 140). In this notion of unity and participation the understanding of being as an island is converted to being-with-another. The individual can only be who he/she is and is yet to become if the other is with them.

#### Transcendence And The Sacred

I think that it is important to understand that reality, metaphorically speaking, is hierarchical in nature and, in this sense, transcendent. This understanding is Skolimowski's understanding of evolution.

Norton, in his article *Context and Hierarchy In Aldo Leopold's Theory of Environmental Management*, writes about the reality of Hierarchy Theory's conception of the relationship between the parts and the whole. Hierarchy theorists presume that the 'window' through which they understand reality is not necessarily reality in any absolute way but rather it is an understanding of reality. The point being, they say, that it is not important "whether natural systems are themselves hierarchical" (Norton, 1990: 124). Norton is speaking of an objective truth, that this type of truth may not be necessary for environmental management. This

interpretation of reality has been metaphorical, not objectively true.

Bohm and Peat also assert that "metaphorical perception is, indeed, fundamental to science and involves bringing together previously incompatible ideas in radically new ways" (1987: 35). Metaphoric interpretation of reality can bring together radically different ideas which can, in turn, form a new totality. Metaphorical thinking refers to reality in terms of value. Hierarchy Theory insists that subsystems are imbedded within larger systems and that the behaviour of these smaller systems ought not to 'overbound' the parameters of the larger system (Norton, 1990: 119). The ought question becomes important and the question of absolutes is of secondary importance.

A metaphorical understanding, for Bohm and Peat, suggests that reality is fundamentally creative and our knowledge arises out of such creative participation and free play of thought (1987: 56). It is in understanding reality as metaphorical that truth and meaning are joined. This is clear in Aldo Leopold's metaphorical idea of thinking like a mountain, that there is value associated with such thinking, value for ecological management and for humanity.

The idea that the self is imbedded in larger 'wholes' seems to indicate that the parts are organized in such a way as to be functional, to have purpose and to be teleological (Goldsmith, 1988: 162,169). This can be seen in the evolution of Gaia and in the human species. It is this part-

whole understanding that conveys meaning, value, and purpose.

The animating breath of what we feel, know, and invest with meaning, simply is: the spiritual is the fundamental ground from which all discussions of life and life's significance must begin. The reality of evolution cannot diminish that which is experientially.  
(Wicken, 1989: 166)

Wicken clearly states that "spirituality is the capacity to invest with meaning...A teaching of ecology is that a 'part' can never know the full extent of the whole that invests it with meaning" (1989: 168). Wicken goes on to state that

In the ecological view of the relational, bilaterally forming part-whole interaction by which we know selves as valuational creatures, our own spiritual self-affirmations point ineluctably toward a deeper Ground of Being of which we are jointly participants and creators, mist and substance.

(1989: 169)

It is the participation within the whole that could be termed the "movement of transcendence, [a] subject's relating to the world as a meaningful whole rather than as a set of present facts" (Kohak, 1986: 93). The spiritual task is then to transcend the particular and to relate to the whole, to the world of meaning. Skolimowski states that life continues to transcend itself within evolution which is a search for meaning. This search is a spiritual search found within the larger process of life. The self-conscious individual seeks to participate in meaningful understanding, this requires transcendence and a vision of the sacred.

I started this section with the concept of metaphor as fundamental to free play, creative thought and to understanding transcendence and the sacred. Metaphor allows

humanity to understand radically different reality as related and it enables a whole-part understanding of life. All diverse reality, being, participates in meaning and becoming (Tillich, 1951: 181). Is this transcendence in the sense of the sacred? Certainly Wicken thinks so. Pannenberg agrees with Wicken.

Self-transcendence is to be regarded at the same time as an activity of the organism and as an effect of the power that continually raises the organism beyond its limitations and thereby grants it its life. The functions of the self-creative and self-integration of life depend on the ongoing process of its self-transcendence. If the self-transcendent tendency of life could be exhaustively explained in terms of an autonomous activity of the organism, there would be no room left for the assumption of a spiritual reality involved in his life.

(1973: 34)

The sacred is involved in self-transcendence. To 'see' is to transcend your present mode of existence, from a meaningless existence to a meaningful existence. This demands that there be a meaningful reality, a sacred reality. Reality must be experienced as sacred.

The experience of a humanly untouched environment, a nature not subdued by man, seems to be a better starting point for the awareness of transcendence than the city, the epitome of a totally man-made and man-controlled environment.

(Klostermaier, 1985: 67)

Kohak, as well as Skolimowski, would agree with this technique to transcend the individual and to 'see' meaning again.

### Messiah, Grace, and Religion

Skolimowski has made it clear that the conception of a

'messiah', someone who will come and save us, needs to be abandoned and with that abandonment there will need to be a revival of individual responsibility. This process of abandonment does not mean that there is no grace but what it does mean is that humanity can no longer think of grace without individual responsibility. There is a need for each of us to allow that grace, that state of being, to be within each of us.

In the book of Job the confession of ignorance was the beginning of wisdom. In today's world humans must again recognize that they do not know all things. Those who possess 'just the facts' and have no wisdom will find the encounter with the universe meaningless. Sin could be considered a loss of wisdom, a loss of the sense of responsibility and, therefore, a loss of a meaningful and moral universe.

We have, as part of our evolutionary heritage, a moral sense which wants to reach out on behalf of others... This seems much of what Christ's teachings were about: not privilege or after world payoffs, but the responsibility of opening up, of love. Opening involves a recognition of indeterminancey, of love, and risk.  
(Wicken, 1989: 178)

Individual responsibility is not a form of isolation but a way of stating quite clearly that the individual must participate in envisioning a world of possibilities, a world that enhances life. This process of participation is coupled with hope and faith. A faith and a hope that the possibilities for a life enhancing future are in fact possible. Kung, in quoting Bloch, states that "where there is hope there is religion" (1981: 486). While all hope may not

be religious in nature, certainly a necessary dimension of the sacred is hope.

Responsibility and the necessary grace to manifest that responsibility within us is a struggle both within ourselves and without. It is a struggle to do what is life enhancing and, therefore, to be filled with grace. Grace is related to who I am and to being responsible. Grace has a liberating aspect where responsibility is no longer understood as a burden but as liberating. It is life enhancing. Grace is a form of love and a form of harmony with the world. Responsibility is liberating because it allows us to live in a state of love and, therefore, in a state of grace.

Because one's being is centered within the process of life the fact that the choices I make may well have life destructive consequences will not disqualify me from the possibility of making life enhancing choices in the future. The life-enhancing choice will continue to be placed in front of me by life itself. Grace is the possibility to see this sacredness of life and thus the continued possibility to make the liberating choice, the life enhancing choice.

I believe that Kohak and Skolimowski are correct in their realization that the moral sense of nature must be perceived and not just conceived as such, that is, held within our being (Kohak, 1986: 106). There are structures that will enable us to transcend our current limited moral sense and, I believe, these structures are religious in nature.

These religious structures enable us to be life-enhancing for they are structures found within existence, within life. They are transforming structures because they enable us to see the universe as moral and unified. The religious sense of life is a meaningful life and Skolimowski is right in saying that the quest for meaning is a religious quest.

The function of religion is not the propagation of dogmatic statements but in co-creating a reality which is meaningful. In this understanding language and actions are transcendent in that they move humanity to discover who they are and where they should progress to. They point to a larger purpose, a meaning that is found both within the individual and the cosmos.

The religious sense of life is not only without but also within. It will take courage and trust to perceive and manifest the connection between the two, that the two are in fact one and the same. The ability to love is not an imposition from without but also comes from within. To see the universe as sacred is as much a struggle without as within. I believe that one cannot take place with out the other. To disclose being and becoming within this larger religious perception is to clear away dogma and all other illusions. Humans do have the ability to 'see' the sacred and to be sacred within history. This, I believe, should be a function of religion.

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