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**ECOLOGY AND ETHICS:
RELATION OF RELIGIOUS BELIEF TO ECOLOGICAL PRACTICE
IN THE BIBLICAL TRADITION**

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I. Practical Politics

In 1972 I ran for political office in my Town of Dunn-- a community just south of the capitol city of Madison, Wisconsin. Several citizens decided to come to grips with rampant urbanization of rural land and natural ecosystems in our community of 4000 people. Housing developments had begun to emerge here and there across our 34.5 square miles; our agriculture was threatened and so too were our wetlands, lakes and streams. Our decision to replace our local government brought a new Town Board, and a subsequent two-year moratorium on all land division gave us the peace to conduct an inventory of everything natural and human-made within our borders. Our inventory was extensive, covering the various ecosystems, biodiversity, agriculture, and human community past and present. It was extensive, but we came to realize that it was not complete, nor could it ever be complete. The scientific and ecological description in all its detail, in all its incompleteness, provided the base for ethical political action: it was the primary motive for our implementing a land stewardship plan in the late 1970s and codifying it into law. Despite continuing battles with those who would destroy this land and its life for immediate personal gain, we now have gained and hold together a town with ecological and social integrity. It stands in contrast to communities around us, not merely because of the scientific and ecological knowledge we have gained about where we live, but because we decided to act on that knowledge for the benefit of the land and its life. A land ethic has been instilled, and we have dedicated our lives to it and its defense. It is an ethic now published in the landscape. It is published abroad in the form of vital and intact ecosystems, restored wetlands, non-structural flood controls, roadsides replanted to prairie, vibrant human community, and much more. Of all its publications in land and life, perhaps none is more dramatic than its citizens' recent decision to add to its only burial ground-- a site unused since the late 1880s. These townspeople have put together the science of their community, they have acted upon it with fervor, and they are determined not only to live here but also to be buried in what has become their native place.

Max Planck, in his 1937 essay, *On Religion and Science*, wrote: "Man needs science in order to know; religion in order to act." Did we in the Town of Dunn act religiously? Planck would suggest we did, and continue to do so. Planck notes that "our decisions, made by our will, cannot afford to wait until we gain complete knowledge or become omniscient. We stand in the stream of life, surrounded by a multitude of demands and needs. We must often make quick decisions or immediately implement certain plans..." "There is no better way to achieve a proper understanding of these remarks" he says, "than to make the sustained effort to understand more deeply the nature and function of science on the one hand and of religion on the other."

This, of course, has gotten me to think about the meaning and roles of science, ethics, and religion. Particularly intriguing to me is that Planck saw both religion and science confronting the same struggle-- "a constant, continuing and unrelenting struggle against skepticism and dogmatism, against disbelief and superstition."¹ What is the role of science, of ecological knowledge? What is the role of ethics and of religion?

Planck observed that "Beliefs about the universe can as little take the place of knowledge and skills as the solution of ethical problems can be achieved through pure intellectual knowledge." Planck's reference to "ethical problems" and the vital importance of religion for addressing them, brings us to an important discovery: our environmental problems are **ethical** problems. Contrary to what our legal and technical approaches to environmental problems may have implied, legal and technical solutions are not sufficient. Laws can and are circumvented and techniques inadequately applied meaning that our major task might be to find "loopholes," "mitigations," and "rationales for non-compliance." We have come to realize that we are deficient in practical ethics. Meeting this deficiency in practical ethics, with deep belief and fervor, is the behavior we observe in the Town of Dunn.

Among those first able to recognize environmental problems as ethical problems were ecologists and environmental scientists. Ecologists frequently see land degradation and deforestation not as things merely to describe but as situations calling forth ethical response. "More than any other single segment of general public today-- certainly more than government leaders, lawyers, philosophers, and educators-- more, even than most mainline preachers, it is the scientist who are telling us that our world is in critical shape and that the human element is chiefly to blame for it. In fact, there has been a conspicuous about-face in the scientific community within the past two or three decades." So writes Douglas John Hall in 1986.²

Thus, our recent discovery and conviction is this: that technical and legal approaches are not sufficient in themselves, and must be joined by ethics. And not only ethics, but ethics put into effective practice. Academic ethics, while beginning to address the ethical questions two decades ago, largely has failed, as Baird Callicott has pointed out. Confinement of ethics to the academy and to philosophy in particular has done very little practical good. We have found that the academy is not the repository of practical ethics; religion is; and we know that religious institutions are major curators of practical ethics.

Recent summaries that suggest that religious institutions can help in addressing environmental issues and problems. Specifically, the Assisi Declarations give us some sense of this through various spokespersons for these faiths: "destruction of the environment and the life depending upon it is a result of ignorance, greed and disregard for the richness of all living things" (Buddhist); that we "repudiate all ill-considered exploitation of nature which threatens to destroy it" (Christian); that we should "declare our determination to halt the present slide towards destruction, to rediscover the ancient tradition of reverence for all life" (Hindu); that "now, when the whole world is in peril, when the environment is in danger of being poisoned and various species, both plant and animal, are becoming extinct, it is our... responsibility to put the defence of nature at the very centre of our concern" (Jewish) and that people as God's trustees "are responsible for maintaining the unity of His creation, the integrity of the Earth, its flora and fauna, its wildlife and natural environment" (Muslim).³

However stated, the environmental teachings of religion in general, or these religions in particular, are not necessarily effective-- passively or actively-- in bringing appropriate care to the Earth. Chinese-American geographer Yi-Fu Tuan, in his study of environmental situations in several eastern environments "discovered that, despite their different religious traditions, their *practices* were every bit as destructive of their environments as in the West."⁴ David Livingstone points out the significance of Tuan's observation "that the 'official' line on [Chinese] attitudes towards environment (the quiescent, adaptive line) in Chinese religions is at odds with what actually is practiced. "Quite simply, Chinese mistreatments of nature abound-- through deforestation and erosion, rice terracing and urbanization."⁵

Thus, we can conclude that religion need not necessarily help address environmental problems, and in fact may hinder it. What a given religion or its adherents do depends upon (1) whether what is believed is put into practice and (2) whether the religion itself has provisions for putting belief into practice, and (3) what Huston Smith refers to as the quality of the religion.⁶ Beyond these considerations, it is also important to recognize that whatever the contributions of religion, religion is not peripheral in the reality of human societies, and thus it should not be peripheral in our minds and scholarship.

How then should we approach consideration of religion? While many approaches are possible, I here use an approach that moves directly to the religion and its written text, without which, in the words of philosopher, Max Oelschlaeger, Western civilization "is incomprehensible." The importance of so doing is illumined by the introduction Professor Oelschlaeger writes to his 1994 book, *Caring for Creation*, in which he describes his "conversion" from believing religion as a principle cause of environmental degradation to religion as a solution. He writes, "For most of my adult life I believed, as many environmentalists do, that religion was the primary cause of ecological crisis... I lost that faith by bits and pieces, especially through the demystification of two ecological problems-- climate heating and extinction of species-- and by discovering the roots of my prejudice against religion. That bias grew out of my reading of Lynn White's famous essay blaming Judeo-Christianity for the environmental crisis."⁷

Oelschlaeger continues, "I think of religion, or more specifically the church-- both the public church and congregations of people or fellowships of believers gathered in places of worship, engaging in discourse about their responsibilities to care for creation in the context their traditions of faith-- as being more important in the effort to conserve life on earth than all the politicians and experts put together. The church may be, in fact, our last, best chance. My conjecture is this:" states Oelschlaeger, "*There are no solutions for the systemic causes of ecocrisis, at least in democratic societies, apart from religious narrative.*"⁸

Religion based upon the Bible is important for us to address, not only because it is the code apart from which Western civilization "is incomprehensible," but also because it has within it a long-standing Stewardship Tradition that incorporates ecological considerations. The Stewardship Tradition, in the words of Robin Attfield, "has historically stressed responsibility for nature, and that not only in the interest of human beings..." This is further supported by the conclusion of his analysis: "whatever the causes of the problems may be, our traditions offer resources which may, in refurbished form, allow us to cope with these problems without resorting to the dubious and implausible expedient of introducing a new environmental ethic."⁹ And, "These traditions... may

well be considered to offer materials from which an environmental ethic equal to our current problems can be elicited, without the need for the introduction of a new ethic to govern our transactions with nature. Indeed, in our existing moral thought and traditions (whether religious or secular) the roots may be found from which, with the help of findings of ecological science, a tenable environmental ethic can grow."¹⁰

This leads us, of course, to asking what the contributions of this tradition are to ecologists and ethical judgements. Analysis of textual material from the Bible provides a set of principles that stand in strong contrast to the eight points presented in Table 1. In Table 2 these biblical principles are presented in parallel with these eight points. In Table 3 these biblical principles are briefly explained.

II. The Bible and Western Civilization

Before considering the Bible, it is important to recognize that there have been many developments and accretions to this code. There are the developments of the Talmud that through medieval Judaism produced new interpretations of ecologically based laws and principles in the context of urban society in contrast to the pastoral roots from which it came. There are the developments of the Christian Church that sometimes brought separation of people from the world of nature, or in what the Jewish and Christian traditions is called the Creation. And so, while recognizing that many of these derivatives of the Bible themselves were helpful and fruitful elaborations and developments of the Bible itself, I will confine my analysis to the ecological teachings of the Bible and not its derivatives. This will have the added advantage of dealing with what is largely held in common by three of the great religions: Judaism, Christianity, and Islam.

Thus the approach I will be using in probing the ecological teachings of the texts of the Bible will be one informed both by the ecological workings of the biosphere and the texts themselves. Reference to land in the texts will be linked with an ecological understanding of land in the world, reference to animals and plants in the texts will be connected with an ecological understanding of the biota in their habitats. This of course, is in the spirit of the long-standing "two-books" tradition, one expression of which was recorded in Belgic Confession of the year 1561¹¹ where under article II entitled, "The Means Whereby God is Made Known to Us," it is stated that:

We know him by two means:
 First, by the creation, preservation, and government of the universe;
 which is before our eyes
 as a most elegant book,
 wherein all creatures,
 great and small,
 are as so many characters
 leading us to see clearly
 the invisible things of God,
 even his everlasting power
 and divinity,
 as the apostle Paul says (Romans 1:20).

All which things are sufficient to convince men
and leave them without excuse.

Second, He makes Himself
more clearly and fully known to us
by his Holy and divine Word,
that is to say, as far as is necessary for us
to know in this life,
to His glory
and our salvation.

While our quest here is not for knowledge of God, but rather, for ecological teachings of the Bible, our quest, like that of Article II of the Belgic Confession, is based upon two books: the book of the biosphere and universe, and the Bible. A traditional support given for this approach is that the Law contained in the Bible is consistent with Law in the natural world and thus are never in conflict, or, that since these two books are by the same Author, who is just and right, they must be in accord. Problems we find of apparent inconsistency between the two books are our problems, not those of the Author, the text, or the natural world. In using the two-books approach to interpretation, therefore, I am operating on the premise that discovery of environmental ethical principles is possible when both books are read authoritatively and interactively.

A. Economy of the Biosphere: Four Basic Ecological Principles of the Bible.

The teachings of the Bible include four basic principles with great ecological import: the Earthkeeping Principle, the Fruitfulness Principle, the Sabbath Principle, and the Fulfilment and Limits Principle.

1. Earthkeeping Principle: As the Creator's keeps and sustains us, so must we keep and sustain the Creator's Creation.

Genesis 2:15 expects that Adam and Adam's descendants to *serve* and *keep* the garden. The Hebrew word upon which the translation of *keep* is based is the word "shamar."

"Shamar" means a loving, caring, sustaining keeping. This word also is used in the Aaronic blessing, from Numbers 6:24, "The Lord bless you and *keep* you." When God's blessing is invoked to keep God's people, it is not merely that God would keep them in a kind of preserved, inactive, uninteresting state. Instead, it is that God would keep them in all their vitality, with all their energy and beauty. The keeping expected of the Creator when the Aaronic blessing is invoked is one that nurtures all of our life-sustaining and life-fulfilling relationships-- with family, spouse, children, neighbors and friends, the land that sustains us, the air and water, and with the Creator. And so too with the keeping of the Garden-- in keeping of the Creation. When we *keep* the Creation, we make sure that the creatures under our care and keeping are maintained with all their proper connections-- connections with members of the same species, with the many other species with which they interact, with the soil, air and water upon which they depend. The rich and full keeping invoked with the Aaronic blessing is the kind of rich and full keeping that should be brought to the Creator's creatures and to all of Creation.

2. Sabbath Principle: We must provide for Creation's Sabbath Rests.

Exodus 20 and Deuteronomy 5 require that one day in seven be set aside as a day of rest for people and for animals. As human beings and animals are to be given their times of sabbath rest, so also is the land. Exodus 23 commands, "For six years you shall sow your land and gather in its yield; but the seventh year you shall let it rest and lie fallow, that the poor of your people may eat; and what they leave the wild beasts may eat." "You may ask, 'What will we eat in the seventh year if we do not plant or harvest our crops?'" God's answer in Leviticus 25 and 26 is: "I will send you such a blessing in the sixth year that the land will yield enough for three years," so do not worry, but practice this law so that your land will be *fruitful*. "If you follow my decrees and are careful to obey my commands, I will send you rain in its season, and the ground will yield its crops and the trees of the field their fruit." Christ in the New Testament clearly teaches that the Sabbath is made for the ones served by it-- not the other way around. Thus, the sabbath year is given to protect the land from relentless exploitation, to help the land rejuvenate, to help it get things together again; it is a time of rest and restoration. This sabbath is not merely a legalistic requirement; rather, it is a profound principle. And of course, it is not therefore restricted to agriculture but applies to all Creation. The Bible warns in Leviticus 26, ". . . if you will not listen to me and carry out all these commands, and if you reject my decrees and abhor my laws and fail to carry out all my commands and so violate my covenant, . . . Your land will be laid waste, and your cities will lie in ruins... Then the land will enjoy its sabbath years all the time it lies desolate . . . then the land will rest and enjoy its sabbaths. All the time that it lies desolate, the land will have the rest it did not have during the sabbaths you lived in it."

3. Fruitfulness Principle: We should enjoy, but must not destroy, Creation's fruitfulness.

The fish of the sea and the birds of the air, as well as people, are given the Creator's blessing of fruitfulness. In Genesis 1:20 and 22 God declares, "Let the water teem with living creatures, and let birds fly above the earth across the expanse of the sky." And then the Creator blesses these creatures with fruitfulness: "Be fruitful and increase in number and fill the water in the seas, and let the birds increase on the earth." Creation reflects the Creator's fruitful work of giving to land and life what satisfies. As it is written in Psalm 104, "He makes springs pour water into the ravines; it flows between the mountains. They give water to all the beasts of the field; the wild donkeys quench their thirst. The birds of the air nest by the waters; they sing among its branches. He waters the mountains from his upper chambers; the earth is satisfied by the fruit of his work." And Psalm 23 describes how the providing Creator "... makes me lie down in green pastures, ... leads me beside quiet waters, ... restores my soul."

As the Creator's fruitful work brings fruit to Creation, so too should ours. As God provides for the creatures, so should people who were created to image God's care for the world. Imaging God, people too should provide for the creatures. And, as Noah spared no time, expense, or reputation when the creatures were threatened with extinction, neither should we. Deluges-- in Noah's time of water, and in our time of floods of people-- sprawl over the land, displacing creatures, limiting *their* potential to obey God's command, "be fruitful and increase in number." To those who would allow a human flood across the land at the expense of all other creatures, the prophet Isaiah warns: "Woe to you who add house to house and join field to field till no space is left and you live alone in the land" (Isa 5:8).

Thus, while expected to enjoy Creation and expected to partake of Creation's fruit, people may not destroy the *fruitfulness* upon which Creation's fullness depends. While human beings are commanded to increase from their original number (Gen 1:28), so also are fish and birds (Gen 1:22). It is thus clear that human fruitfulness must not be accomplished at the expense of the rest of Creation. Beyond not destroying, we must, with Noah, save the species whose interactions with each other, and with land and water, form the fabric of the biosphere. We should hear the profound admonition of Ezekiel 34:18: Is it not enough for you to feed on the green pastures? Must you also trample them with your feet? Is it not enough for you to drink clear water? Must you muddy it with your feet?

4. Fulfilment and Limits Principle: We should fulfil Creation but within its limits. The fruitful and abundant life, according to the Bible, is not something measured by mere numbers. Achieving biotic potential is not what the abundant life is about. As children are a gift from the Creator to be nourished and treasured, so is the great biotic potential a gift from God-- a gift that enables human beings and other creatures to make a rapid come-back following a period of depopulation, or a species in its earlier days to establish itself. Of course if all creatures were to meet their biotic potential life on Earth would be impossible. And this is acknowledged in the Bible in biblical passages on fruitfulness: "... fill the earth, the sky, the seas." There is no doubt that this "filling" means a rich, abundant, flourishing fullness-- a fullness that envisions Creation so fruitful that it literally swarms with a full spectrum of vibrant and energetic creatures, people included. But it is fruitfulness within bounds and limits. The word for "fill" used in these texts, and biblical texts on filling wineskins and rivers, means "filling up" and "fulfilling." Both indicate an end point, a capacity, a fulfilment. Thus this blessing is not a blessing without limits; instead, it envisions living creatures, including people, as flourishing within the bounds of God's Law for Creation-- within the physical and biological boundaries God has established. Even though the sea is vast and bountiful, and blessed with fruitful and multiplying creatures, limits are set on its size and extent. Even though they are blessed and commanded to fill the seas, the sea creatures are not to overfill them. Thus, the Creator "made the sand a boundary for the sea, an everlasting barrier it cannot cross" and storks in company with other birds fill and fulfil the skies but do so within God-appointed seasons and spaces. Fruitfulness is commanded, but it has its boundaries.

B. Economy of Human Behavior: Four Basic Human Behavior Principles of the Bible.

5. Sabbath Buffer Principle: We should measure our actions by respect for the Sabbaths rather than by meeting absolute limits. How then are we to tell when we as people are at whatever limits there are for the human population? How are we to tell when the force we exercise on the Earth, multiplied by our numbers and our energetic machines, are "the limit?" The Bible has a remarkable answer in its teachings about the Sabbaths. The Bible's answer is to provide a means for sensing limits before they are reached. The Sabbath laws say something like this: "You may go sixth/sevenths of the way to the limit and no further," and, "If you find it necessary to press yourself, your family, your employees, or your animals to work more than six days in seven then you are in danger of transgressing the limits." And, "If you find it necessary to stop giving the land time for regeneration by not letting it rest one year in seven, you also are approaching the limits." The teachings on the Sabbath of the week in Exodus 20 and Deuteronomy 5, and those on the Sabbath for the land in Exodus 23 and Leviticus 25-26 provide

"buffers" that help us stop short of confronting head-on the crises of species extinctions, starvation, environmental genocide, and the generation of environmental refugees. The Sabbaths prevent us from reaching "the end of our leash."

Beyond mere law however, the Sabbath laws proclaims a **principle**: good rulers give themselves and the creatures under their care rest as often as needed. For example, a farmer who lives in the Alberta farming community of Neerlandia gives his land rest every second year, because he practices the sabbath principle from the heart by giving to his land the rest it needs to be fully fruitful-- to be truly fulfilled. His practice, informed by biblical teachings, comes from the conviction that, "The Sabbath is made for the land and not the land for the Sabbath." There are some places on Earth where once in two years is not enough and land must be in continuous sabbath. The Sabbath laws must be practiced from the heart and not just legalistically.

When we find ourselves rationalizing the need to violate Sabbath rests and restoration for people, land, and creatures, we are seeking ways to exploit time and space that soon will plunge us and other creatures headlong toward the hard and fearsome limits of ecological collapse, starvation, and extinction.

Thus responsible rule, in the Sabbath view, is not to fill every available niche in space and in time with human activity and physical transformation. Instead, life under human rule must be worked significantly short of its absolute limits; Creation must be so ruled that it may enjoy its Sabbaths.

Creation must be so nourished with Sabbaths that it and all its creatures achieves its God-intended abundant and sustained fruitfulness. The model for all of this is the Creator who on the seventh day, also rested.

In the Scriptural view then, the question is not whether we are at the limit, but whether we can and do practice the Sabbaths. It is the Sabbaths that assure that the ultimate and fearsome limits will not have to be experienced. In the Scriptural view, it also is the question of whether we have been able to achieve our fruitfulness while not diminishing God's blessing of fruitfulness to the other creatures. For in so limiting ourselves and our use of Creation, the world will be more of what, in the teaching of the Bible, it is intended to be. The whole Creation must have its times and spaces for rest and restoration.

6. Contentment Principle: We must seek contentment as our great gain. The fruitfulness and grace of the Garden-- the gifts of Creation--did not satisfy Adam and subsequent generations (Gen 3-11). Even as God promised not to forsake them, they chose to cut out on their own-- squeezing ever more from Creation. The Creator wants people to pray: "Turn my heart to your statutes and not toward selfish gain" (Psalm 119:36). Paul, who has learned the secret of being content (Phil 4:12b), writes: "...godliness with contentment is great gain..." (1 Tim 6:6-21; also see Heb 13:5).

7. Priority Principle: We must seek first the kingdom, not self-interest. "This, then is how you should pray: "Our Father in heaven, hallowed be your name, your kingdom come, your will be done on earth..." (Matt 6:9-10). It is tempting to follow the example of those who accumulate

great gain, to Creation's detriment. But the Bible assures us: "Trust in the Lord and do good; dwell in the land and enjoy safe pasture... those who hope in the Lord will inherit the land" (Psalm 37; Matt 5:5). Fulfilment is a *consequence* of seeking the kingdom (Matt 6:33).¹²

8. Praxis Principle: We must not fail to act on what we know is right. Knowing the requirements of the Bible for stewardship is not enough; they must be practiced, or they do absolutely no good. Hearing, discussing, singing, and contemplating God's message is not enough. The hard saying of scripture is this: We hear from our neighbors, "Come and hear the message that has come from the Lord." And they come, "but they do not put them into practice. With their mouths they express devotion, but their hearts are greedy for unjust gain. Indeed, to them you are nothing more than one who sings love songs with a beautiful voice and plays an instrument well, for they hear your words but do not put them into practice" (Ezek 33:30-32; see also Luke 6:46-49). Believing on God's Son (John 3:16), we must *do* the truth, making God's love for the world plainly evident in our own deeds, energetically engaging in work and action that are in accord, harmony, and fellowship with God, and God's sacrificial love (John 3:21).

III. Conclusion

The Bible, apart from which Western civilization is inexplicable, has powerful ecological teachings that support an ecological worldview and oppose a utilitarian world view. Better understanding of these biblical teachings by ecologists and adherents to the Bible will help develop a mutual understanding of how better to make ethical ecological judgements and put them into practice. If religion is a help, then we should encourage it. If it is a hindrance, then we should nurture it in quality. Either way ecologists need to deal with it. And we should recognize the importance of this by being ready to assist churches in their care and keeping of Creation. In doing so, we should be aware of the difference between subverting religion and nurturing it. To syncretize two religions likely will be to profane both. Neither can religions be invented, as we invent machines or social clubs. Religions, such as those in the Judeo-Christian traditions we have been tracing here, need to be seen as ties that bind together people and bind them together with the land, the creatures and the whole of Creation.

Table 1.***UTILITARIAN WORLD VIEW*****ECONOMY OF THE BIOSPHERE:**

1. **Earthconsumption** - the biosphere & ecosystems are merely resources for consumption.
2. **Expendibility/substitutability** - ecosystems and species are expendible not only of their surplus but also substance, including extinction
3. **Continuous exploitability** - the Earth and the biosphere can be relentless pressed without need for restoration or recuperation
4. **Unlimited human population** - human population is not limited by resources but only human ingenuity

ECONOMY OF HUMAN BEHAVIOR:

5. **Crisis Management** - we adjust behavior only following definitive evidence of substantial consequence
6. **Discontent as best personal condition** - people are best motivated by convicting them of discontent irrespective of their situation
7. **Self-interest as best motivation** - people are best motivated to serve the needs of society and environment through pursuit of self-interest
8. **Dualism of belief and practice as best policy** - people are best when their beliefs are kept separate from their work and actions

Table 2.***GREAT CODE WORLD VIEW*****ECONOMY OF THE BIOSPHERE:**

1. **Earthkeeping** - serve and keep Creation with all its dynamic integrity and fullness
2. **Fruitfulness** (bal taschit) - while taking of the fruit of Creation, never destroy its fruitfulness
3. **Restoration/sabbath** - provide for adequate time for restoration of the ecosystems you use
4. **Fulfillment and limits** - bring yourselves and the creatures under your care to fulfillment, observing the limits

ECONOMY OF HUMAN BEHAVIOR:

5. **Regulation by Sabbath** - respect and assure the times and places for ecosystem rest and restoration
6. **Contentment** - in whatever state you are, learn to be content
7. **Seek system integrity as first priority** - seek integrity of Creation first, with justice
8. **Put beliefs into practice** - do not fail to act on what you know is right

Table 3.***UTILITARIAN AND GREAT CODE WORLD VIEWS*****ECONOMY OF THE BIOSPHERE:**

1. Earthkeeping	Earthconsumption
2. Fruitfulness (bal taschit)	Expendibility/substitutability
3. Restoration/Sabbath	Continuous exploitability
4. Fulfillment and limits	Unlimited human population

ECONOMY OF HUMAN BEHAVIOR:

5. Regulation by Sabbath	Crisis Management
6. Contentment	Discontentment as best condition
7. Seek system integrity first	Self-interest as best motivation
8. Put beliefs into practice	Dualism of belief & practice as best

Endnotes

1. Max Planck, *On Religion and Science*, 1937, reprinted in translation in *On Creation and Science*, by Jerusalem Post Press, Jerusalem.
2. Douglas John Hall, *Imaging God: Dominion as Stewardship* (Grand Rapids: Eerdmans), p. 8.
3. Quotations from *The Assisi Declarations: Messages on Man & Nature from Buddhism, Christianity, Hinduism, Islam & Judaism*. World Wildlife Fund, 1986. Authors are the Venerable Lungrig Namgyal Rinpoche, Abbot of Gyuto Tantric University (Buddhism), Father Lanfranco Serrini, Minister General of the Franciscan Order (Christian), His Excellency Dr. Karan Singh, President, Hindu Virat Samaj (Hindu), His Excellency Dr Abdullah Omar Nasseef, Secretary General of the Muslim World League (Muslim), and Rabbi Arthur Hertzberg, Vice-President of the World Jewish Congress (Jewish). For additional similar material, see DeWitt, C. B., "The Religious Foundations of Ecology." In: Scherff, Judith, ed. *The Mother Earth Handbook*. New York: Continuum Publishing Co. pp. 248-268, 1991.
4. Quotation from David N. Livingstone, *The Historical Roots of Our Ecological Crisis: A Reassessment* (unpublished paper prepared for Christianity Today Institute, October 28-29, 1993., p. 4.
5. Livingstone, p. 5.
6. It is not enough to respond or to respond religiously; the response must be of the right kind. Whatever the response, it must be appropriate; it must be in accord with the way ecosystems and the biosphere work. While Huston Smith in his *The Religions of Man* (Harper & Row, 1958) writes of quality in general terms, in ecological terms quality religion brings people in accord with the principles by which ecosystems. The result of such quality religion should operate so that ecosystem processes are not degraded or destroyed, and that where systems have been degraded or eliminated that they are restored. This of course implies that way things are is ecologically is right. While this may contradict philosophers such as Immanuel Kant, it still may be right thinking according to environmental philosopher Laura Westra (Ecology of animals: is there a joint ethic of respect? *Environmental Ethics* 11(3):215-230). Ecological concordance with the way the world works is an important measure that can be applied to evaluate the quality of a given religion and its expression in practice.
7. Max Oelschlaeger, *Caring for Creation* (New Haven: Yale University Press), 1994, pp. 1-2.
8. Oelschlaeger, p. 5.
9. Robin Attfield, *The Ethics of Environmental Concern*, (Athens: University of Georgia Press,), Second Edition, 1991, p. 34.
10. Attfield, pp. 45-46. Before beginning consideration of the Great Code, however, it is important to recognize that there have been many developments and accretions to this code. There are the developments of the Talmud that through medieval Judaism produced new

interpretations of ecologically based laws and principles in the context of urban society in contrast to the pastoral roots from which it came. There are the developments of the Christian Church that sometimes brought separation of people from the world of nature, or in what the Jewish and Christian traditions is called the Creation. And so, while recognizing that many of these derivatives of the Great Code themselves were helpful and fruitful elaborations and developments of the Great Code itself, I will confine my analysis to the ecological teachings of the Great Code and not its derivatives. This will have the added advantage of dealing with what is largely held in common by three of the great religions: Judaism, Christianity, and Islam. By so doing I will be putting before us the question with which we began, "Religion: help or hindrance?" More specifically, I will be asking the question: "The Great Code: help or hindrance?" The reason for so restricting my analysis is clear: if the Great Code is found a hindrance, then we likely will have little need to explore its derivatives. However, if it is a help, we will have our reasons for probing its derivatives, and well as its own substance. There is sense in this approach as there is in the case of law and the courts: the Great Code remains a principal basis, if not the basis, upon which these three great religions depend.

11. Guido de Bres, Belgic Confession, reprinted in the Psalter Hymnal, Centennial Edition, Grand Rapids, Michigan: Publication Committee of the Christian Reformed Church, 1959, p. 3 of the section on Doctrinal Standards.

12. For a related theological study see "The Kingdom of God and Stewardship of Creation," by Gordon Zerbe, in C.B. DeWitt, ed., *The Environment and the Christian: What Can We Learn from the New Testament*, Grand Rapids, Michigan: Eerdmans, 1991, pp. 73-92.