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Shalom and the Character of Earthkeeping

Steven C. Bouma-Prediger
Hope College, boumapred@hope.edu

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THE
MARYVILLE
SYMPOSIUM:

*Conversations on Faith
& the Liberal Arts*

*Discerning a Moral
Environmental Ethic*

*Volume 2
2008*

THE MARYVILLE SYMPOSIUM
Conversations on Faith & the Liberal Arts

The Proceedings

Discerning a Moral Environmental Ethic

Volume 2
2008

Maryville College, Tennessee

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Symposium Opening Remarks

Ronald A. Wells
Director, The Maryville Symposium

As we begin this second annual Maryville Symposium, a fair question to ask is: why should a small liberal arts college host a scholarly meeting, “Discerning a Moral Environmental Ethic,” under the heading of “Conversations on Faith and the Liberal Arts?”

The short answer is this: it springs from the twin pillars of Maryville College’s identity and aspiration, that is, a liberal arts consciousness formed in a church-related context. On the one hand we join with many other liberal arts colleges in supporting the ideal of the free and untrammelled pursuit of truth in all academic disciplines. We are unafraid of where ideas might lead us. At the same time, the church-relatedness of the college invites the perspectives of faith-based inquiry. Even as we are unafraid of where ideas lead, we are unembarrassed that faith is part of the mix in the education and the scholarship to which this community of learning aspires.

We are not unaware of the tensions and contradictions that this conjunction might leave us with. But, we choose to embrace those tensions, and not give up just because it is hard. We are aware that in North American higher education, a majority of liberal arts colleges, despite the religious roots of most of them, have elected to distance themselves from their religious heritages. They say that to strive for academic quality must mean keeping religious viewpoints marginalized, in what one scholar has called “the God box,” i.e., the religion department and the chaplain’s office, and/or in the realm of private belief. We are also aware that a minority of liberal arts

colleges takes the opposite tack, that is, they believe that faith-based ideas must lead the discussion, and, in some cases, be the essential filter through which all academic work must be done. For them, “God” is not in the box but on the throne of the college.

Maryville College and this Symposium take a determinedly moderate approach in this regard. We embrace the tensions involved, and acknowledge that the seeming paradoxes are hard to resolve, if they can ever be resolved. By my count, there are about eighty colleges in North America committed to this moderate approach. It is President Gibson’s hope that we might join with them in this on-going discourse, and that our Maryville Symposium might play a modest part in it.

This year our “big idea” is “Discerning a Moral Environmental Ethic.” The thinking behind organizing this conference is this: scholars and activists have, in recent years, given us a full catalogue of “inconvenient truths.” We need not repeat them here. Yet, even now there are religious and political leaders who have doubts about – or even reject – the findings of the International Panel on Climate Control. On the other hand, there are those who, while fully committed to environmental stewardship, are nevertheless doubtful about human agency in accomplishing gains for the common good. What we hope to do this weekend is to look with care at overarching ideas and at local realities in our colleges; and at cutting edge philosophical theology as well as the contributions of specific religions expressions. While we value all the contributors to this conference we are particularly gratified that the keynote address will be given by Holmes Rolston, III, a person widely-known as the parent of environmental ethics as an academic discipline.

So, “Faith and the Liberal Arts.” For me, the operative words are “Conversations on....” This weekend, and in future Symposia, we hope to continue this way of going about it: civil conversations between colleagues that are meant to open discourse, not close it, to see what can be learned not what is to be told; to include rather than exclude, and to value new conversation partners.

Those making presentations today and tomorrow have agreed to come to share their ideas with you all. Later this fall, I will receive the revised versions of the papers and of the invited comments, as well as the wrap up remarks of Thomas Kennedy. In a few months we will publish The Proceedings, thereby we hope to continue this weekend's conversations in many other places.



Caring for Nature: From Respect to Reverence

Holmes Rolston, III
Colorado State University

How do we rise from the facts of natural history, earth's biodiversity, to what ought to be, human caring for a valuable creation? Notice that the signs posted which forbid trespassing this is-ought boundary are themselves cultural artifacts, deriving from certain theories about ethics, the moral neutrality of nature, or value as human-interest satisfaction. Experienced naturalists are often inclined to ignore signs about where one can and cannot legitimately go. I cannot promise to provide you with a formal logic across the fact/value gap, but I can give you a good story, exciting natural history. There is something awesome about an Earth that begins with zero and runs up toward 5 to 10 million species in several billion years, setbacks notwithstanding. That history, fact of the matter, seems valuable; it commands respect, even reverence.

Now we confront another alleged fallacy: the genetic fallacy. One cannot move value judgments back and forth from present to past. One does not dismiss the greatness of Abraham Lincoln as president by discovering that he was born in the backwoods. One does not dismiss a scientific theory by discovering that it originated in idiosyncratic circumstances. One cannot undermine presently encountered value--so this argument goes--by discovering that it had uncertain origins. Can we not remain puzzled about origins while we greatly respect what we now find on Earth?

One does not have to go so "deep down" to know the "native range" worth. A husband can respect his wife, and does

not need to know what kind of proteins she is made of, much less that she is made of quarks, and that her ancestors evolved over millennia of natural selection. Possibly we can know that value is present without knowing its origins. Still, in historical events, processes such as speciation do not separate so easily from products such as species. Upon finding a goose that lays golden eggs, it would be odd to admire the eggs and ask no questions about the goose.

Biodiversity and plenitude of being

Something is increasingly learned across evolutionary history: how to make more kinds and more complex kinds. This seems undeniably a truth about natural history, although we next wonder how far neo-Darwinism, the prevailing paradigm, is competent to provide an adequate explanation how this happens. We do not think that there is any progress as the planets spin round the sun; or gases swirl around Jupiter. There is none on Earth with the passing of cold and warm fronts; they just come and go. Likewise with the rock cycles, orogenic uplift, erosion, and uplift again.

There is no natural selection there either, nothing is competing, nothing is surviving, nothing has adapted fit, and biology seems different. All those climatological and geomorphological agitations continue in the Pleistocene period more or less like they did in the Precambrian, but the life story is not the same all over again. Where once there were no species, now there are five to ten million. It seems evident that, on average and environmental conditions permitting, the numbers of life forms start low and end high. Diversity increases.

So does complexity. With the evolution of genetics, organisms gain the capacity to acquire new information over historical time and to store and transmit this information. All of them start simple and some end up complex; there are trends over longer-range time scales, and something is at work additionally to merely tracking drifting environments. The life process is drifting through an information search, and locking onto discoveries. It is cybernetic or hereditary, as geomorphic processes are not. There is no accumulation of information in the hydrologic, climatological, orogenic cycles, but there is in the

birth, life, death, and genetic cycles. Biology is historical in ways impossible in physics or geophysics. Ernst Mayr, though he realizes that "higher" is a troublesome word in biology, still asks:

And yet, who can deny that overall there is an advance from the procaryotes that dominated the living world more than three billion years ago to the eucaryotes with their well organized nucleus and chromosomes as well as cytoplasmic organelles; from the single-celled eucaryotes to metaphytes and metazoans with a strict division of labor among their highly specialized organ systems; within the metazoans from ectotherms that are at the mercy of climate to the warm-blooded endotherms, and within the endotherms from types with a small brain and low social organization to those with a very large central nervous system, highly developed parental care, and the capacity to transmit information from generation to generation? (Mayr 1988, 251-252).

Recalling that this diversity also includes vertebrate brains, nothing seems more evident over the long ranges than that complexity has increased. In the Precambrian there were microbes; in the Cambrian Period trilobites were the highest life form; the Pleistocene Period produced persons.

Against this background, we have to confront the current fashion among social constructionists and postmodernists. A scholar's chosen opinions reflect his or her social and cultural climate as much as they do what is objectively there in the fossil record. On this point philosophers of science and even the paleontologists themselves may nowadays join the social constructionists. Michael Ruse insists, "Evolution is going nowhere--and rather slowly at that" (Ruse 1986, 203). A frequent argument is that most forms of life, although they may respicate and differ, do not get any smarter--the beetles or the plants. The linchpin of contemporary biology is that the better adapted survive, but the better adaptations with which most species survive have nothing to do with evolutionary progress--those beetles and plants again. Anyone who today believes that

progress was a heading during evolutionary history, Ruse concludes, is guilty of "pseudo-science," an overlaying of European ideologies onto the fossil record (Ruse 1996, 526).

Stephen Jay Gould, the most visibly outspoken paleontologist of the last century, insists that belief that there is "inherent, stately progress as a hallmark of life's history" is foolish prejudice. "The history of life ... is not going anywhere intrinsically" (Gould 1980a, 31-32). Biology has no covering law, or trend, enabling one to say that microbes, or mammals, or men could statistically be expected. Evolutionary theory offers no explanation of the crucial journey, indeed it claims there is none, but that the results are random. All that is selected for is capacity to survive, unrelated to any increase of worth or value.

Perhaps the philosophical interpretation is not science; nevertheless we have a metaphysical problem on our hands as a result of the science. John Maynard Smith says, "There is nothing in neo-Darwinism which enables us to predict a long-term increase in complexity." But he goes on to suspect that this is not because there is no such long-term increase, but because Darwinism is inadequate to explain it. We need "to put an arrow on evolutionary time" but get no help from evolutionary theory. "It is in some sense true that evolution has led from the simple to the complex: procaryotes precede eucaryotes, single-celled precede many-celled organisms, taxes and kinesis precede complex instinctive or learnt acts. I do not think that biology has at present anything very profound to say about this" (Maynard Smith 1972, 89, 98).

We survey evolutionary history to find, to use an old category, plenitude of being. The modern term is biodiversity. If you want a still older, earthier term: Earth has brought forth "swarms of living creatures" (Genesis 1.20). The long evolutionary creativity seems pretty much fact of the matter; see it with what social constructions we may. Steven M. Stanley concludes: "The empirical record of diversification for marine animal life since Paleozoic times represents actual exponential increase" (Stanley, 2007, 1). Geerat J. Vermeij finds that "escalation characterizes the Phanerozoic history of life" (Vermeij, 1987, 419). Andrew H. Knoll celebrates "Earth's

immense evolutionary epic": "The scientific account of life's long history abounds in both narrative verve and mystery" (Knoll, 2003, xi).

Darwinian nature and sufficient cause

Perhaps one does not need to go "all the way down," but it will enrich our valuing and our ethics if we can go "all the way up," that is if we can gain some systemic, comprehensive view. "Down under the quarks" may be a bad analogy. One might need to know the origin or context of some values to authenticate this value. One might need to know, for example, whether one's wife is made in the image of God to treat her with full respect. Value will be piecemeal without a system, "a grand narrative." At least we need, in Maynard Smith's metaphor, a phylogenetic "arrow."

Without systemic tendencies, the biological richness we find on Earth is an anomaly, that is, a cascading value stacking that cannot be predicted, derived, or given account of out of the theoretical model. If the species one encounters are results of being buffeted about by random winds of change, if their adaptation to the drifting environments is by variations arising from a genetic crashout, then one may by good fortune luck into spasmodic wealth, but one is not systemically wealthy. The biodiversity we find ourselves surrounded with is, Stephen Jay Gould insists, only "chance riches" (Gould, 1980b).

A person who has riches by chance (a winning lottery ticket) is less wealthy than one with riches who has earned them, or one who inherited them from a family with decades of hard work and achievements. Certainly, you can value what you have by luck. But if you just luck into all your goods, you have no cause to expect more value and no explanation for what you have got. A person who finds on Earth only accidental riches is less wealthy than one who inhabits a system bent on enriching the diversity of life. Lucky people may still be inclined to respect their wealth. But they will be unable to respect any system that produced such wealth. Without any phylogenetic arrow, they are as likely to drift out of their wealth as to be aimed for more. They might respect life, but they are not likely to reverence it, because they do not have any account of its origins or matrix in the scheme of things.

Did not John Maynard Smith complain that an increase of complexity, an arrow on evolution time, seemed fact of the matter, about which contemporary biology theoretical biology had little to say? Biology does have some things to say about life. One cannot construct life (as we know it at least) without carbon, hydrogen, oxygen atoms, without a source of energy, such as the sun. One cannot construct complex forms without beginning with simpler ones. In such biological theory we have necessary cause but find no sufficient cause.

John Maynard Smith and Eörs Szathmáry analyze "the major transitions in evolution" with the resulting complexity, asking "how and why this complexity has increased in the course of evolution. ... Our thesis is that the increase has depended on a small number of major transitions in the way in which genetic information is transmitted between generations." Critical innovations have included the origin of the genetic code itself, the origin of eukaryotes from procaryotes, meiotic sex, multicellular life, animal societies, and language, especially human language. But they find "no reason to regard the unique transitions as the inevitable result of some general law"; to the contrary, these events might not have happened at all (Maynard Smith and Szathmáry 1995, 3).

Meanwhile, biology is value-laden. Biologists talk about values all the time. "An ability to ascribe value to events in the world, a product of evolutionary selective processes, is evident across phylogeny. Value in this sense refers to an organism's facility to sense whether events in its environment are more or less desirable" (Dolan 2002, 1191). Adaptive value, survival value, is the basic matrix of the governing Darwinian theory. An organism is the loci of values defended; life is otherwise unthinkable. But this is value individualized; or, to put it more provocatively, piecemeal value. Darwinian value comes in particulars, packed into individuals, who survive and flourish, adapt and die, regenerate themselves. We do find golden eggs, but we are not sure whether there is a systemic goose. If there is, it looks as though the goose lays eggs chaotically; and when they hatch things at once become ugly, red in tooth and claw.

Frances Crick complains that biology is not "elegant." As organisms evolve through that interplay of chance and necessity called evolution, they become encrusted with mechanisms and tricks that might have no more overarching logic than the layout of the Manhattan subway system. An organism has an accidental history in a way that an atom or a galaxy does not (Crick 1988, 6, 137-142). Despite finding pandas and orchids among his chance riches, Stephen Jay Gould that the panda's thumb is makeshift and that orchids are "jury-rigged" (Gould, 1980c, pp. 20-21). Francois Jacob characterizes evolutionary history as millennia of "tinkering" (Jacob, 1977).

If, however, we return to basic Darwinian theory, biologists do have "niches" into which these organisms, each with a good-of-its own, must be placed as an "adapted fit." That invites thinking about the interdependence and community in which organisms participate. If so, we need to move from x has a value of its own to x is valuable in the system. If x serves a role as an adapted fit, we might often find that x expresses some value not otherwise present in the system, enriches it by being there. Of course, it might be the case that x has a value of its own, but that the pursuit of that value is bad for the system, or bad for people. That x has a good of its own does not entail--therefore--that the good of x should be promoted. Disease germs have a good of their own, but we do not wish to promote that good. The first is fact of the matter; the second is a normative judgment.

With a more systemic set of facts, however, diseases are parasitic on a larger wealth of biodiversity. Parasitism is a subroutine in a larger value-capture system. The whole idea of parasitism is conceptually parasitic on values elsewhere present and flourishing enough to be parasitized. The parasite that loses skills borrows those skills because these remain in the host. The disvalue, parasitism, is privative on some value, autonomous life; and all life is interdependent. Seldom does the system as a whole degenerate. Sometimes it may, as when climates turn colder or drier, but even then new skills appear. On planetary scales there is that overall increase of diversity and complexity we earlier considered. If one values life at all, one must value it generically, collectively, as with the term "biodiversity." The

burden of proof will be on those who single out germs, or skunks, weasels, poison oak, as bad kinds. For the most part, these swarms of creatures are very good--as is already affirmed early in the book of Genesis. Every individual organism is a distributive increment in a collective good, presumably.

Whether biologists can find such selective principles or not, it seems that something is at work making the system fertile, prolific, and developmental, combining both innovations and novelties with stabilities and regularities so as to order the story and perpetuate a swelling wave. This portrays in some respects a loose teleology, a soft concept of creation; and yet one which permits genuine, though not ultimate, integrity and autonomy in the self-developing creatures. What comes to pass wells up from below, congealing out of the quantum states. After that welling up is underway the higher levels can also come to superintend the lower, responding to potentials presented there, as when an organism with its genetic program executes its lifestyle, commands and puts to use resources in its metabolism. The life adventure overall seems more an interaction phenomenon, where a prolife principle is overseeing the affairs of matter.

Theories are like suits of clothes; they do have to fit the data more or less, but a great deal depends on how you want to dress things up. Maybe you want to dress up randomly and chaotically. Maybe you want to dress up red with tooth and claw. Maybe you want to dress nature up with "selfish genes" (Dawkins, 1989), defending local values in a system where conflict and combat is all that one can see. But there is another way to dress nature up, seen in those conservation biologists ready to rejoice in the richness of biodiversity.

When we celebrate the biodiversity and wonder whether there is a systemic tendency to produce it, biology and theology become natural allies. The classical theology of design perhaps needs reforming, but just as much the biology of randomness and bloody struggle may need reforming. The paradigms need to change; and to that end, I am arguing that the better biological categories are those of values achieved, actualized, shared, and conserved in a natural history of dramatic creativity. Such a reinterpreted biology will be much more congenial to theology.

The facts of the matter may give us, so to speak, sufficient cause to wonder about reverence for creation. Where there is creativity, we will have to wonder whether there may lurk a Creator.

Earth as providing ground

Every animal, every plant has to seek resources, but life persists because it is provided for in the system. Earth is a kind of providing ground. I am choosing my words deliberately, if also provocatively: provide, providence, promised land, Earth with promise, resources, sources, provisions for life on Earth. "Ground" has an earthy tone, at once with a cosmic possibility. Life needs an earthy "grounding," and when we find how prolific Earth is, we need some metaphysical "ground" of such a nature. "Provide" has echoes of "providence," and classical theological convictions that God provides for an abundant life, and that those provisions include a Promised Land, a garden Earth. Yes, Earth has provisions, or, as scientists, prefers "resources." But what are we to make of the deeper sources by which there come to be these resources. What are we to make of these "provisions" for life on Earth, found as fact of the matter by science, judged valuable, respected in environmental ethics, even revered by the ecological theologians? There is biodiversity, plentitude of being, because Earth is a resource-full, a resourceful place. How does this come to be? If we can answer that, we may want to go on to ask, why does this come to be?

Physics has discovered the so-called "fine-tuned universe." Astrophysics and nuclear physics, combining quantum mechanics and relativity theory, have made dramatic discoveries at astronomical and submicroscopic ranges. Recent theories interrelates the two levels; astronomical phenomena such as the formation of galaxies, stars, and planets depend critically on the microphysical phenomena. In turn, events at the mid-range scales, where the known complexity on Earth mostly lies (in ecosystems or human brains), depend on the interacting microscopic and astronomical ranges. These results have been summarized as the "anthropic principle," which argues that the universe has been configured from the start in the fundamental characteristics of its construction for the subsequent construction of stars, planets, life, and mind. Paul Davies, a cosmologist, claims that we hit "the cosmic jackpot," a universe "just right for

life" (Davies, 2007). (For summaries of a large literature, see Barr 2001; Leslie 1989).

There are naturalistic ways of interpreting these discoveries, which, rather curiously, typically multiply universes generously enough so that our prolific universe can be a rare piece of good luck—one among myriads of stillborn universes. By this account not only are the achievements of evolutionary history on Earth, starting some five billion years ago, mostly a matter of luck, even more, some ten billion years before that, getting the kind of universe started up that can later become a providing ground is fantastically lucky.

If one is a metaphysician unhappy with multiplying other speculative and otherwise unknown universes sufficiently that we can have this one by luck, then one needs to look more closely at the remarkable features of this one that make it possible for there eventually to be life. But now the luck problem returns in events within in our home universe. It is difficult to tell whether these astronomical and microphysical relationships are necessary or contingent, or both. So far as these relations are necessary, we seem to have some pro-life principle there before the startup; so far as they are contingent, we seem to need some pro-life principle appearing as things get underway. There is already at the astronomical levels this "readiness" for life, in the sense of constructing the sorts of atoms that--as we later discover but so far only on Earth--can be organized this way.

Contingent or necessary, dramatically on Earth, we have a striking result where life and mind are absolutely dependent on some deep structure that makes this universe right for life. None of this prevents an inquiry, beyond the natural, why there is this natural and improbable or inevitable prolific universe. We live in what K. G. Denbigh calls "an inventive universe" (Denbigh, 1975). But that there exists a universe with such a fundamental makeup nowhere seems necessary or self-explanatory, either in its fundamental astronomical makeup or in the specifics of events on Earth. A striking property is that the universe is prone to form pacts of energetic matter, stars, assembled in galaxies, and these stars have served as furnaces, in which all the higher

elements have been forged, with a cooking time of many millions of years. The products have included carbon, oxygen, nitrogen, iron, silicon, and other elements in proportions that later have proved fortuitous for evolving dirt and, out of the dirt, life. But life needs a place to happen, and such places are not so easy to find.

Located at a felicitous distance from the sun, Earth has liquid water, atmosphere, a suitable mix of elements, compounds, minerals, and an ample supply of energy. Radioactivity deep within the Earth produces enough heat to keep its crust constantly mobile in counteraction with erosional forces, and the interplay of such forces generates and regenerates landscapes and seas--mountains, canyons, rivers, plains, islands, volcanoes, estuaries, continental shelves. "It appears that Earth got it just right," conclude Peter D. Ward and Donald Brownlee (2000, 265).

On Earth life appears. Coded in DNA molecules, there is information breakthrough with resulting capacity for agency, for doing something. Something can be discovered, learned, conserved, reproduced on Earth, but not on the moon. What is novel on Earth is this explosive power to generate vital information. In this sense, biology radically transcends physics and chemistry. An organism is a spontaneous cybernetic system, self-maintaining with a control center, sustaining and reproducing itself on the basis of information about how to make a way through the world. Organisms employ physical and chemical causes, but, distinctive to life, there is information superintending the causes. This information is a modern equivalent of what Aristotle called formal and final causes; it gives the organism a telos, an "end," not always a felt or conscious end-in-view. The major discovery of biologists in the last half century has been massive amounts of information coded in DNA, a sort of linguistic molecule.

Physics is often taken to be the ultimate science; it is also the simplest of the sciences, in the sense that it leaves out all the later and higher-level complexities to focus on the search for what is "down under," for the elemental particles and processes out of which everything came. But we do not hit any rock

bottom at the start; we just quit in physics because there is no more fundamental sciences to which to turn. And sometimes we fail to realize how a fundamental element in the story is not present in physics at all.

In nature, once there were two metaphysical fundamentals: matter and energy. The physicists reduced these two to one: matter-energy; the biologists shortly afterward discovered that there were still two metaphysical fundamentals: matter-energy and information. Norbert Wiener insists: "Information is information, not matter or energy" (Wiener, 1948, 155). George C. Williams is explicit: "Evolutionary biologists have failed to realize that they work with two more or less incommensurable domains: that of information and that of matter. ... The gene is a package of information" (In Brockman, 1995, 43). John Maynard Smith says: "Heredity is about the transmission, not of matter or energy, but of information" (Maynard Smith, 1995, 28). The most spectacular thing about planet Earth, says Richard Dawkins, is this "information explosion," even more remarkable than a supernova among the stars (Dawkins, 1995, 145).

When sodium and chlorine are brought together under suitable circumstances, anywhere in the universe, the result will be salt, sodium chloride. There is no information input needed. When nitrogen, carbon, and hydrogen are brought together under suitable circumstances anywhere in the universe, with energy input, the spontaneous result may be amino acids, but it is not protein molecules, not hemoglobin molecules or lemurs--not spontaneously. The know-how, so to speak, to make salt is already in the sodium and chlorine, but the know-how to make hemoglobin molecules and lemurs is not secretly coded in the carbon, hydrogen, and nitrogen. The essential characteristic of a biological molecule, contrasted with a merely physicochemical molecule, is that it contains vital information. All such information once upon a time did not exist, but came into place; this is the locus of creativity.

In the ongoing story, especially after biology arrives, with its genetic capacities to store information, transitioning across those levels noted by Maynard Smith, we keep getting

more out of less. The ultimate phenomenon to be explained is not really energy physics but information history, especially the natural history on Earth. The creativity in nature is poorly authorized by the best causal accounts; there is little or no imperative for the commanding drama. We get lots of explanations, and yet the sense of mystery does not go away. The secular autonomy that once seemed to banish any Presence turns out to veil a kind of haunting incompleteness.

True, there are always some causes behind effects, but these nevertheless have surprising effects that the causes never seem completely to specify. The stream steadily rises above its source. The effects over time, whether probable or improbable, initiate events the likes of which have nowhere been seen before. Theologians, when they turn from conversing with physicists to dialogue with biologists will want to notice that, although the physical universe is necessary for life, perhaps even fine-tuned for life, this physical universe is not yet known to be sufficient for life. Indeed, so far as we yet know, life has in fact occurred only in the tiniest fragment of it. The universe as a whole is quite lifeless. Even if there is extraterrestrial life, life will still be among the rarest things in the universe. Earth stands somewhere midscale in the spectrum of levels from quarks to galaxies, and at this midscale take place the most complex events known anywhere in the universe. We seem to reside on some providing ground, and Earth seems to be an intense expression point of how dramatic these provisions can be. Earth is indeed a promising planet. But if we claim that science is explaining how, much less why, this is so, we are only holding out a promissory note. Such a promissory note must compete with, or complement, religious explanations of earthen creativity.

One can, one ought to respect such creativity. If you see nature only instrumentally, you are inclined to manipulate it, our providing ground, and our provisions. If you see these evolutionary and cybernetic processes and the resulting products, Earth's biodiversity, more deeply as having intrinsic value, you are inclined to respect it and you will often pass over unawares to reverence for life. If you come systematically to venerate the productive processes, the Ground that provides for life, you have passed into the domain of the religious.

Nature as grace

Nature is struggle. Nature is grace. I recall, in Appalachian woods, stumbling on a whorled pogonia flowering in spring in a secluded glade to exclaim, "Amazing grace!" Life persisting in the midst of its perpetual perishing is a kind of gift. Scientists may prefer the word "given" to "gift," and they will definitely prefer "law" to "grace." The secular will say only that life is a "given," and also perhaps that one ought to respect such a given. But the religious will think that "gift" is more insightful than just a "given." And then we may need a "Giver" with the "gift," or if that is too monotheistic, at least some metaphysical explanation that seems adequate to what is given.

There is creativity by which more comes out of less. Though the system provides for it, no logic demands it. Scientific theory doubtfully predicts it. Actually, neither scientific logic nor theory handles historical explanations very competently, especially where there are emergent novelties; science prefers law like explanations in which there are no surprises. Given initial conditions, one predicts, logically unfolding one's theory, and the prediction comes true. But nevertheless biology is full of unpredictable surprises. The account of natural history will not be by way of implication, whether deductive or inductive.

There is no covering law (such as natural selection), plus initial conditions (such as one-celled eucaryotes), from which one can deduce persons. There are no humans invisibly present (as an acorn secretly contain an oak) in the primitive eucaryotes, to unfold in a law like or programmatic way. All we can do is tell the epic story—eucaryotes, trilobites, dinosaurs, primates, persons who are scientists, ethicists, conservation biologists--and the drama may prove enough to justify it.

So how far can we get toward the conviction that nature is grace, left to our own wits? Maybe we can get halfway there with another experience: the sense of the sublime. "Sublime" is today thought to be an archaic word. But that word has a way of re-appearing, when we really get "archaic" in the deep sense, that is, back to the "archetypes," which happens more often in the

wilderness than in town. The experience of the "sublime" literally "takes us to the limits" and is closer to mystery and the religious than mere respect. Nature is the first mystery to be encountered; and society comes later, much later after one learns evolutionary history. In the primeval forest (or on the desert or tundra) humans get transported by forces awful and overpowering, by the signature of time and eternity.

"The trees of the Lord are watered abundantly; the cedars of Lebanon which he planted" (Ps. 104.16). With forests, America is even more of a promised land than is Palestine. John Muir exclaimed, "The forests of America, however slighted by man, must have been a great delight to God; for they were the best he ever planted" (Muir 1901, 331). Such forests are a church as surely as a commodity. Trees pierce the sky, like cathedral spires. Light filters down, as through stained glass. The forest canopy is lofty; much of it is over our heads. In common with churches, forests invite transcending the human world and experiencing a comprehensive, embracing realm. "The groves were God's first temples" (Bryant 1825).

So far from being unaware that nature is grace until after one has been to church, for many it is the other way round. Forests serve as a more provocative, perennial sign of the mysterious, the awesome, than many of the traditional, often outworn, symbols devised by the churches. Muir continued, "The clearest way into the Universe is through a forest wilderness" (quoted in Wolfe 1938, 313). Christians will regard that as an overstatement; they clearest way into the Universe is through Jesus Christ.

Christians may also wish to remember that Jesus Christ saw the presence of God clearly in the natural world in which he resided. The birds of the air neither sow nor reap yet are fed by the heavenly Father, who notices the sparrows that fall. Not even Solomon is arrayed with the glory of the lilies, though the grass of the field, today alive, perishes tomorrow. There is in every seed and root a promise. Sowers sow, the seed grows secretly, and sowers return to reap their harvests. God sends rain on the just and unjust. Divinely given, earthen nature is the original act of grace.

Being among the archetypes, a forest is about as near to ultimacy as we can come in the natural world--a vast scene of sprouting, budding, flowering, fruiting, passing away, passing life on. We get goose pimples with mountaintop experiences, hearing the wind in the pines, with solitude in a sequoia grove, watching the falling autumn leaves. We feel life's transient beauty sustained over chaos. A forest wilderness is a sacred space. There Christians recognize God's creation, perhaps cued to look for it when they were back in church at the altar. Others may find the Ultimate Reality or a Nature sacred in itself. A forest wilderness elicits cosmic questions, differently from town, and it seems to do this whether you have been reading your Bible or not. Christians ought to have a particular interest in preserving wild lands as sanctuaries for religious experiences, both for Christians and others inspired there.

If the word "sublime" is too archaic for modernists who visit the woods, perhaps we can get halfway to the sacred with the word "wonder." If we wonder at nature, do we not thereby consider nature a "wonderland." A wild land is a wonderland, standing on its own. "Praise the Lord from the earth you sea monsters and all deeps, fire and hail, snow and frost, stormy wind fulfilling his command! Mountains and all hills, fruit trees and all cedars! Beasts and all cattle, creeping things and flying birds!" (Psalm 148.8-9). "Thou crownest the year with thy bounty; the tracks of thy chariot drip with fatness. The pastures of the wilderness drip, the hills gird themselves with joy, the meadows clothe themselves with flocks, the valleys deck themselves with grain, they shout and sing for joy" (Psalm 65.11-13). "Who has cleft a channel for the torrents of rain, and a way for the thunderbolt, to bring rain on a land where no man is, on the desert in which there is no man; to satisfy the waste and desolate land, and to make the ground put forth grass?" (Job 38.25-27).

Stephen Jay Gould finds Earth the scene of "wonderful life," even if this is just "chance riches" (Gould, 1989; 1980b). Indeed, in the last words he wrote, he was moved to use the word "holy":

Something almost unspeakably holy—I don't know how else to say this—underlies our discovery and confirmation of the actual details that made our worlds and also, in realms of contingency, assured the minutiae of its construction in the manner we know, and not in any one of a trillion other ways, nearly all of which would not have included the evolution of a scribe to record the beauty, the fascination, and the mystery (Gould 2002, 1342).

In this deeper sense, says Ernst Mayr, though hostile enough to traditional monotheism, "Virtually all biologists are religious, in the deeper sense of the word, even though it may be a religion without revelation.... The unknown and maybe unknowable instills in us a sense of humility and awe" (Mayr 1982, 81). E. O. Wilson, a secular humanist, ever insistent that he can find no divinity in, with, or under nature, still exclaims, with emphasis: "The flower in the crannied wall – it is a miracle" (Wilson 1992, 345). "The biospheric membrane that covers the Earth, and you and me,... is the miracle we have been given" (Wilson 2002, 21). Daniel Dennett, as resolute a naturalist as one can find, still ends his survey of natural history: "The world is sacred." Apparently not even Darwin's "universal acid" can dissolve that claim, dissolve God though this acid can (Dennett 1995, 520-521).

Maybe these code words "miracle," "sacred" and "holy" are just rhetoric; maybe they are provocative. But I suspect even these three secularists are tugged by a deeper undertow than they realize in their encounters with these archaic orders. The secular—this present empirical epoch, this phenomenal world, studied by science—does not eliminate the sacred after all; to the contrary, the secular evolves into the sacred. Surveying paleontological history, Loren Eiseley exclaims, "Nature itself is one vast miracle transcending the reality of night and nothingness" (Eiseley 1960, 171).

When J. B. S. Haldane found himself in conversation with some theologians and was asked what he had concluded from his long studies in biology about the character of God, he replied that God had an inordinate fondness for beetles. God must have loved beetles, he made so many of them. But species counts are only one indication of diversity, and perhaps the fuller response is that God must have loved life, God animated such a prolific Earth. Haldane went on to say that the marks of biological nature were its "beauty," "tragedy," and "inexhaustible queerness" (Haldane, 1932, 167-169). This beauty approaches the sublime; the tragedy is perpetually redeemed with the renewal of life, and the inexhaustible queerness recomposes as the numinous. Biology produces many doubts; here are two more. I doubt whether one can be a biologist without a respect for life, and the line between respect for life and reverence for life is one that I doubt that we can always recognize and one that is more important than we think. If anything at all on Earth is sacred, it must be this enthralling creativity that characterizes our home planet. If anywhere, here is the brooding Spirit of God.

Viewing Earthrise from the moon, the astronaut Edgar Mitchell, was entranced: "Suddenly from behind the rim of the moon, in long, slow-motion moments of immense majesty, there emerges a sparkling blue and white jewel, a light, delicate sky-blue sphere laced with slowly swirling veils of white, rising gradually like a small pearl in a thick sea of black mystery. It takes more than a moment to fully realize this is Earth ... home."

Mitchell continued, "My view of our planet was a glimpse of divinity" (Mitchell, quoted in Kelley 1988). The astronaut Michael Collins recalled being earth struck: "Earth is to be treasured and nurtured, something precious that must endure" (Collins 1980, 6).

Those are astronauts, not biologists, but what they see is the home planet, the living planet in all its startling possibilities, of which evolutionary history is the most indisputable evidence. The vision of the land of promise originated in Israel. What we have discovered is that this is a global vision. The land of promise is the Planet of Promise.

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Response to Holmes Rolston

**Drew Crain
Maryville College**

The year was 1870. Our nation was healing from the Civil War. Construction had just begun on the Maryville College campus, after the original campus in downtown Maryville was destroyed in the war. Thomas Huxley (known to his contemporaries as Darwin's Bulldog due to his tenacious advocacy of Darwin's theory on natural selection) stated that we should "Learn what is true in order to do what is right."¹ One hundred thirty eight years later, we struggle as a society to do what is right in terms of the environment, even though we have learned so much. As a scientist, I find this troubling, but the words of Holmes Rolston give me hope that perhaps we are at a point in history where science and theology together can create a shift from mere respect for nature to reverence for nature, and in doing so can move society from exploitation to preservation of our natural resources.

Huxley's encouragement to "Learn what is true in order to do what is right" has not been followed for many environmental issues. During Huxley's life, forests throughout the southeast were depleted through industrial logging. Even though scientists at the time understood and communicated the problem, tremendous deforestation occurred throughout the southeastern U.S. For example, in the area currently in the Cherokee National Forest, 90% of the land was completely deforested. In a 1924 letter concerning the land that would later become the Cherokee National Forest, it was noted that: "On most of the area they have taken everything. The only timber left is a few clumps of hemlock so difficult to take out that they left it."² As Bob Lewis, District Forester in the Cherokee National

Forest, told me “It was all about money and a resource hungry nation” (Bob Lewis, pers. comm.). Science was clear, but ignored. It was only the establishment of the National Park Service and National Forest Service in the 1930s and early 1940s that circumvented a widespread ecological collapse.

A more contemporary example of the lack of science alone to lead to environmental health is found in the story of bisphenol-A (BPA). BPA is a synthetic chemical added to many plastics. It is added to the thin lining of soup and vegetable cans (to prevent a metallic taste), and is a component of polyvinyl chloride (PVC, used in piping and water bottles), polystyrene (used in meat trays, plastic flatware, and packing peanuts), and Tupperware and Nalgene bottles. Plastics were not used on a large scale until the 1950s, so humans and animals were not exposed to BPA prior to this time. What scientists have learned over the past 15 years is that BPA is an endocrine disrupting compound. Such chemicals alter the normal hormonal signaling in the body, leading to reproductive and metabolic health problems. Today, the two places in the environment that you can measure relatively high levels of BPA are in the water downstream of landfills (as a result of BPA leaching from discarded plastics) and in the water flowing out of sewage treatment facilities (as a result of BPA being consumed by humans and subsequently excreted).³ At environmental concentrations, BPA adversely affects the reproductive system of animals, decreasing both male and female fertility in wildlife and lab animals. Given the widespread incidence of human infertility, it has been hypothesized that BPA also contributes to decreased human health. The majority of scientific studies reach the same conclusion – exposure to BPA in levels that humans and wildlife are exposed to cause health problems.⁴ Yet, BPA is still added to plastics, and exposures to newborns and children, the most sensitive developmental stages, still occur. Why is this?

The answer to this is that science does not reign as the only source of influence, or even as the primary influencer, in our society. Economics, politics, the arts, religion are also pieces in the fabric of our society. In 2008, BPA remains on the market in the United States as a result of the influence of economics and politics. The U.S. Food and Drug Administration in August of

this year decided to keep BPA unregulated. In the words of the world's leading researchers on BPA "The fact that the US regulatory community is willing to accept these industry-funded, antiquated and flawed studies as proof of the safety of BPA, while rejecting as invalid for regulatory purposes the findings from a very large number academic and government investigators using 21st century scientific approaches, is of great concern."⁵ Science has spoken, but the voice of science has been silenced by the voice of economics. To a biologist, this is disturbing. However, Rolston posits that humanity needs, even requires, religious insight into nature, and that such insight can promote a movement from simply admiring and respecting nature to revering nature. I am hopeful that the combined influences from science and religion will eventually prevail in eliminating harmful substances from our environment and, as a result, preserve the beauty in creation. But my hope will remain just that unless a reverence for the earth, a viewing nature as grace, becomes incorporated into the mindset of the majority of people.

This idea that nature is grace, an undeserved gift to humanity, is a difficult concept for most biologists to accept, as people in my profession typically view nature simply as an ecosystem that exists as a result of random chance. In essence, nature just is. This idea is a result of the theory that underpins all of biology, the theory of natural selection. But, to use Rolston's analogy, the process of natural selection itself can be dressed up and presented many ways. Some clothe natural selection with garments meant to depict death and destruction, and by others it is dressed up as a bride at a wedding. Natural selection is a process, neither good nor evil, but just a process. Through this process, creation continues; in other words, natural selection is the process of continued creation. When I first came to realize that creation was not a historical event, but a continuing process, it led me from respect to reverence, much as it did Charles Darwin. The closing lines of his famous work, Origin of the Species read "There is grandeur in this view of life, with its several powers, have been originally breathed into a few forms or into one; and that whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning

endless forms most beautiful and most wonderful have been, and are being, evolved.”⁶

Rolston speaks of science and theology as being allies, not combatants. Indeed, our understanding and full appreciation of this world requires an integration of science and religion. Such an integration is inhibited when scholars compartmentalize “fact finding” to science and “value judgment” to theology. But as Rolston clearly articulates, value is a component of contemporary science. For example, funding agencies are always judging what research questions and projects are more valuable. The National Institutes of Health does not fund “the best” grant proposals in a given year; yet, funding goes to the solid proposals that address the NIH prioritized initiatives. These initiatives are nothing more than what is valued by the current NIH board.

To value something is to appreciate its importance or preciousness, and it is easy to see that science includes importance (such as grant initiatives), but does science connote preciousness? I do believe that scientific facts necessarily lead to reverence, preciousness, and awe, terms previously relegated to theology. For instance, consider the development of a human from a single cell zygote to a 100-trillion cell adult. The orchestrated migration and differentiation of cells during animal development from a zygote to embryo to fetus to neonate is intricate, complex, and beautiful. During the developmental process called gastrulation, previously totipotent cells differentiate into either endoderm, mesoderm, or ectoderm tissues. These tissues further differentiate into particular cell types in our organs. How does a cell go from a totipotent stem cell to a specialized β -cell in the islets of Langerhans of the pancreas? The answer is through expression of 100’s of specific transcription factors, growth factors, and other proteins that are produced at a precise time in development. Developmental geneticist Veronica van Heyningen said it best; “the amazing thing about development is not that it sometimes goes wrong, but that it ever succeeds.”⁷ The fact that I can explain the detailed mechanism of development does not preclude reverence for the physical and chemical laws that dictate development. Development is a complexly orchestrated event, and the facts

learned about the details of Developmental Biology lead one past respect to a reverence for life itself.

Holmes Rolston's thesis is that our proper care for the environment requires a shift from mere respect to reverence, and this reverence can be gained from observing the historical increase in biodiversity over time, from valuing of natural selection as a continuing creative force, and from perceiving the earth as a providing ground that is created and sustained by an unimaginable force that gives us nature as grace. It is my hope that this insight will promote true environmental stewardship. Thomas Huxley's suggestion in 1870 to "Learn what is true in order to do what is right" has seldom been followed. In 2008, a more appropriate mantra to promote environmental health is "Do what is right because of the beauty of creation."

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Response to Holmes Rolston

D. Brian Austin
Carson-Newman College

Sometime about 500 years ago, the Western intellectual tradition began to see dead things as paradigmatic for the understanding of living things, a startling reversal from nearly 2000 years of seeing it the other way around. One result of this reversal was the eventual demotion of living things to the status of epiphenomena—accidental by-products of what was *really* going on in the natural world. As practical problem after practical problem was solved using this new method of reductionistic mechanical explanation and prediction, more and more people came to believe that this new way of solving problems was actually the literal description of the way things are in nature, and the hegemony of the mechanical metaphor, under which we still operate in the halls and basements of academia, took root. The worldview, as Rom Harre has called it, of mechanistic corpuscularian reductionism,¹ rose to pre-eminence, and has jealously guarded its dominance ever since.

Dr. Rolston's paper, as I read it, laments the ethical fruits of this hegemony and advocates a different way of valuing the natural world from which we and every other living thing emerged. What I hope to show in outline, in the small space allotted, is that the positive metaphysical speculations of American philosopher Charles Sanders Peirce can offer a most valuable framework for moving beyond, or beneath, or over, this hegemony, thus creating conditions for the more ready acceptance of the attitude toward the environment so ably suggested by Dr. Rolston. In developing this thesis, one or two minor points of contention with Dr. Rolston's argument will be

broached; but the view I will present is profoundly harmonious with the primary aims of his paper.

The Mechanical Metaphor and the Devaluing of Nature

As historian of science John Brooke and many others have noted, the prevailing picture of a universe resembling a cathedral gave way, beginning in the early modern period, to a picture of a vast, cold, harsh, and unwelcoming concatenation of machines.² This preference for mechanical metaphor over organic ones might be seen as the modern culmination of a perceived mandate to control and exploit nature for the immediate benefits of its human masters. Nature as machine provides the perfect metaphor for those who would see dominion as domination, since machines are quintessentially created for the purposes of meeting perceived human needs. Machines are supposed to be automatic, predictable, and dutiful executors of our commands, like a genie, or a golem, but less interesting. If organisms are really machines whose complexity has, until recently, disguised their machine-nature from us, then it is no surprise that life need not evoke reactions of reverence, wonder, or even respect, from the robot-masters.

So one way that we might move toward creating (or restoring) a sense of wonder, and then reverence, is to work to expose the widely held mechanical reductionistic reading of nature as the culturally conditioned metaphor that it is. A number of gifted thinkers from various academic fields have been working toward this end during my professional career. I especially commend the work of my friend and mentor, the late Arthur Peacocke, who, like Dr. Rolston, was awarded the prestigious Templeton Prize for Science and Religion. Dr. Peacocke tirelessly fought for a view of the world that emphasized emergent realities and the impossibility of explaining them solely in terms of the lower levels that they encompass.³ And his argument that the states of collectives could causally impact their component parts remains a powerful thorn in the reductionist's side.

Dr. Peacocke was a lover of music and poetry, so I think he would not mind if I bypassed his ideas this time in order to dwell for a moment on a poet/academic who I believe is among the most eloquent and insightful contemporary mimes of the

mechanical reductionistic worldview, Wendell Berry. Mr. Berry has produced a large number of poems and essays on the subjects of mechanism and reductionism, but I think the most successful (and the most relevant to our discussion here) is the monograph *Life is a Miracle: An Essay Against Modern Superstition*.⁴ Most of this book is a response to E. O. Wilson's well-known work, *Consilience*.⁵ Berry takes Wilson to be a representative of the reductionistic and mechanistic philosophy that downplays or even ignores the uniqueness of each organic entity. Berry is especially contentious toward the ambitious pursuit of "consilience" in which every pattern in nature will ultimately be explained by yet more general laws or patterns. In his attack on the reduction of the uniquenesses of one level of emergence to samenesses of the more general levels, Berry cites the irreducible singularity of every organism, its unique life history in its unique place. Any description in reductionistic terms, however useful for solving practical problems and answering practical questions, is always immeasurably *less than* the organism so described.

Berry recognizes that "machine" may be useful as a metaphor. It may have even once been very valuable in encouraging persons to acknowledge the complexity and coherence of the natural world. But he argues that in the minds of many, it was no longer seen as metaphor. He says, "When a metaphor is construed as an equation, it is out of control; when it is construed as an identity, it is preposterous. If we are to assume that our language means anything at all, then the world is not a machine, and neither is an organism. A machine, to state only the greatest and most obvious difference, is a human artifact, and a world or an organism is not."⁶

Berry concludes his line of argument by quoting an earlier and a later work of E. O. Wilson, and ponders why Wilson had apparently abandoned his earlier wonder at the inexhaustible riches of a single tree in favor a universalizing project—a theory that would encompass the whole of reality. "A single tree? Well, life is a miracle and therefore infinitely of interest everywhere. We have perhaps sufficient testimony, from artists and scientists both, that if we watch, refine our

intelligence and our attention, curb our greed and our pride, work with care, have faith, a single tree might be enough.”⁷

A Peircean Proposal for a different Metaphor

The portions of Peirce’s project relevant to this response have to do with his broadest metaphysical speculations—his phenomenology of Firstness, Secondness, and Thirdness.⁸ Using a very broad brush, these categories include respectively, Chance, Law, and something fruitful that is neither of the first two. Firstness includes phenomena such as spontaneity, mutation, variation, pure chance, the sources of novelty in the universe. Secondness includes lawfulness, regularity, cause-effect, predictability, action-reaction and related events. Thirdness, of particular concern here, is the realm of symbol, language, growth, history, information, and (most relevant here) “habit-taking.” It seems to me that the wonder of which Dr. Rolston speaks in the world of living things is precisely the wonder that Peirce sees in Thirdness, specifically in habit-taking.

Habit-taking is neither lawless chance variation nor automatic mechanical behaviors of systems. It is the story of life passing on information to successive generations; it is the story of convection currents in a cooling fluid; it is the story of autocatalytic chemical reactions; it is the story of streambeds digging ever-deeper channels into the earth after unpredictable beginnings. It is the tendency of any activity in the world to continue its work amidst ever-changing environments. Streams form habits insofar as they do not arbitrarily change course. At incredibly more complex levels, life forms habits by communicating genetic information to successive generations. And at even higher levels of complexity, minds form habits by, for example, continuing to believe ideas that provide beneficial results. This universal characteristic of development, which is neither arbitrary nor automatic, is, I think, what Dr. Rolston celebrates about the biosphere. And rightly so. Peirce, though, argues that this remarkable feature is to be found (admittedly incipiently) even in the rocks, the water, and the mud that is birthed by their combination. So I echo Dr. Rolston’s call for reverence toward nature, but I would extend that reverence down the developmental chain even to the mud.

A professor of mine a long time ago, inspired by the creation account in Genesis 2, was fond of referring to human beings as mudballs. He thought this would keep us humble. He's probably right about that. But I think the belief that God fashioned the human from the dust of the earth ought to impel a reassessment of the dust of the earth, also. That dust, and the mud made from it, is inspired. As I mused a few years ago,

[f]rom that mud, from its carbon, nitrogen, hydrogen, oxygen, and assorted metals, a child can be woven. The atoms in that mud, the same kinds of atoms that comprise my children and you and me, have existed for billions of years. Some of them, in all likelihood, at one time were part of a person.

Jesus the Christ, in whom God was reconciling the world to God's self, was made of those same kinds of atoms, very old atoms. This muddy clay is no trivial, commonplace annoyance. This mud is spectacular, and we believe that God made it so. This mud is rich, pregnant with possibility. It is worthy of God's becoming, in Jesus, a mudball like us. This is the incarnation, God become mudball. To see ourselves as made of the same stuff that rests under our boots as we journey a mountain path is no insult to human dignity, no affront to the image of God in us; it is rather a reminder of the majesty of inspired mud, a reflected majesty that gives us but one more fleeting glimpse of the blinding brilliance of the maker of the mud.⁹

¹ Rom Harre, *The Philosophies of Science: An Introductory Survey*, (Oxford: Oxford University Press, 1972), 140.

² John Hedley Brooke, *Science and Religion: Some Historical Perspectives*, (Cambridge: Cambridge University Press, 1991), 85.

³ Dr. Peacocke's views about this and other related issues are valuably summarized in the recent, posthumously published volume, *All That Is: A Naturalistic Faith for the Twenty-First Century*, (Minneapolis: Fortress Press, 2007).

⁴ Wendell Berry, *Life is A Miracle: An Essay Against Modern Superstition*, (Washington, DC: Counterpoint, 2000).

⁵ New York: Alfred A. Knopf, 1998.

⁶ Berry, 46.

⁷ *Ibid.*, 142

⁸ These notions appear in many places and guises in Peirce's work. One useful brief summary can be found in Nathan Houser and Christian Kloesel, eds., *The Essential Peirce: Selected Philosophical Writings, Vol. 1 (1867-1893)*, (Bloomington, IN: Indiana University Press, 1992), 242-244.

⁹ D. Brian Austin, *The End of Certainty and the Beginning of Faith: Religion and Science for the 21st Century*, (Macon, GA: Smyth and Helwys Publishing, 2000), 150.



Shalom and the Character of Earthkeeping

Steven Bouma-Prediger
Hope College

All over this magnificent world God calls us to extend His Kingdom of shalom—peace and wholeness—of justice, of goodness, of compassion, of caring, of sharing, of laughter, of joy, and of reconciliation. God is transfiguring the world right this very moment through us because God believes in us and because God loves us.

Desmond Tutu¹

Everything Is Wrong

The class discussion was animated. The students, second-semester seniors, were alternately hopeful and despairing. The topic of the day: home, and the world in which we live and a world that they, on the cusp of college graduation, would soon enter in a new and different way.

“I grew up in Michigan,” said Janet, “but my parents both grew up in Ohio, and so for a long time I felt like my second home was the house where my mother was raised. But last summer I lived and worked in the Boundary Waters, and so I still feel the tug of the Gunflint Trail in the northern tip of Minnesota. And because I had a wonderful semester abroad in Aberdeen, I have an irreversible emotional attachment to Scotland. It feels like home when I close my eyes and walk through the cobbled streets down to the rowing team’s boathouse, or to the train station where so many adventures

began. The attachment I feel to so many places does not decrease my liking for one place or another, but it does increase the feeling of a type of homelessness.”

“What do you mean?” asked Ari.

“I say ‘homeless’ not in the sense of living on the streets below the poverty level, but in the emotional sense of lack of geographic affinity. I still feel that my roots are in my parents’ home where I grew up, but I have lived in other places and now I face a new challenge of moving several states away for grad school. I have to ask myself the question: What is a home?”

“I can relate,” said Ari in response. “But my sense of homelessness comes from the mess we are in. I mean, look around. We are a broken people living in a broken world. And this brokenness is undeniable, even though we often fail to recognize all that brokenness until we are nearly buried by it. Creation seems so big and sturdy, but really it is made up of these incredibly intricate parts that are so susceptible to harm. We have forgotten how to be gentle. We have lost our sense of awe and respect.”

“But most environmental problems don’t really affect us,” avered Kevin. “Sure the earth is somewhat wounded, but the earth is resilient. Besides, every day we have better technologies to fix most of our problems.”

“But you fail to realize,” continued Ari, “that our health is inextricably linked to the health of our planet. We poison our bodies while simultaneously poisoning the earth, and if we are not extremely careful, if we don’t begin to make alterations in the way we live, we will surely perish.”

“Don’t be melodramatic,” interjected Jon. “We won’t perish. Sure, we have some problems, but they’re not that bad. People have made such half-baked claims before about the end of the world, and look where we are now. Lots of advances in medicine, faster computers, smaller cell phones. I call it progress.”

“I have to disagree, Jon,” responded Paul. “Evidence of our brokenness surrounds us. Just pick up a paper or watch the news. All you have to do is look around and you will see it. Violence, weapons of mass destruction, land disputes, extinction, civil war, famine, theft, rape, murder--on it goes. Do you feel the heartache?”

“We live in a world where money is power and peace is weakness,” continued Paul after a pregnant pause. “We are completely and utterly broken. Here in America children are raising themselves as they sit before the modern fireplace, the TV, fueled by the logs of CBS, MTV, and HBO. Parenthood has been replaced by pop-icon-teen-role-models. Video games and primetime TV have overtaken family dinners. And money-hungry investors have usurped the religious leaders of our day. We have lost our sense of home.”

“Listen to this from the jacket of a CD by Moby,” said Paul.

By ‘Everything is Wrong’ I mean EVERYTHING. I look around me. I’m typing on a plastic and metal and glass computer perched on a desk made from cut down trees and toxic paint. I sit in a building made of wood and bricks that were taken from the Earth on a street made of poisonous asphalt that was laid over an ecosystem that had thrived for hundreds of thousands of years. I’m clothed in cotton that was saturated with pesticides while it grew and treated and dyed with toxic chemicals while it was being processed. All of my possessions were made hundreds or thousands of miles away and shipped in styrofoam and plastic wrap via gas burning engines and destructive road and air ways to me. My food, although organically grown and completely vegan, is shipped from where it was grown to my local store and is often packaged in paper, plastic, metal, and toxic inks. I know tons of people who eat meat, smoke cigarettes, drive cars, use drugs, etc. even though they know that these things will ultimately hurt

the quality (and length) of their lives. I live in an apartment building where no one is on a first name basis. I know more about idiot actors in Hollywood that I've never met than I do about the woman who lives next door to me (and is probably more interesting). While walking to work I inhale toxic exhaust from cars sitting in traffic. To make sure that eating three cans of oven cleaner will make you sick, or to make sure that pouring nail polish remover into your eyes will hurt you, we torture mice, rabbits, dogs, cats, etc. We use toxic chlorine bleach to keep our underpants white. We cut down the rainforests to drill for oil so we can drive to the video store. Do you see what I mean? Everything really is wrong.²

With that onslaught of words, from a bona fide member of the pop culture crowd, the discussion came to a close.³ Clearly for these young men and women there was a feeling that the world is not the way it is supposed to be. And my sense is that many people today, not just the twenty-somethings, feel in their bones that something is wrong. The world is amiss. The earth is amuck. We are feeling homeless on our home planet.

Deafness, Ignorance, Indifference, Denial

Ecological degradation is real.⁴ But some of us seem deaf or ignorant, indifferent or in denial. According to Thomas Berry, we are deaf and dumb. "Our scientific inquiries into the natural world," he argues, "have produced a certain atrophy in our human responses" so that "we cannot speak" to the forms of existence around us. "Emotionally we cannot get out of our confinement," he continues, "nor can we let the outer world flow into our own beings." Hence "we cannot hear the voices speak or speak in response."⁵ We are unable to perceive either the wonder of the world around us or its tragic despoilment and ongoing destruction.

For others the problem is ignorance. If only people knew the scope and severity of the problems, some insist, they would take action. There is solid evidence for widespread ecological

illiteracy. For example, the National Environmental Report Card consistently shows that most Americans fail a basic environmental literacy test: “As the results of the most recent surveys make clear, Americans lack the basic knowledge and are unprepared to respond to the major environmental challenges we face in the 21st century.”⁶ Or as educators Joe Sheldon and Dave Foster succinctly state, “the lack of knowledge is a serious problem.”⁷ Whether or not overcoming ignorance is enough for all to be well, it is true that there is altogether too much we do not know.

Numerous earth-watchers note that many people seem apathetic. They simply don’t care. Whether adopting a hedonistic ethic of “Eat, drink, and be merry for tomorrow we die” or overcome by the ennui and cynicism of the times, some folks lack the concern sufficient to move them to responsible action. For others denial is the root problem. We know enough; we simply do not want to face the mess we have made. As Mark Lynas puts it: “We live in a society consumed by denial” where “politicians make the occasional speech about the gravity of the climate change crisis and then go right back to business” and we “claim to be worried about global warming...but we still do remarkably little to change our own habits and lifestyles.” Or, if not denying the problem, we deny that we have any responsibility--“it’s someone else’s problem and we vaguely hope that someone else will sort it out.”⁸ Denial in its many deceptive disguises clearly is very much with us.

But others of us feel our home is no longer fit for human habitation. Like Aldo Leopold, we are aware that we live in a world of wounds.⁹ While hard of hearing, we are not deaf to the groanings of the earth: we know too much to claim ignorance; we care too much to be indifferent; on our better days we reject denial, for the evidence is too hard to evade. These four ways are not open to us.

All of this raises a number of important questions. What sociocultural conditions have contributed to our deafness? What keeps us ignorant? What cultural pressures allow for apathy regarding this wounded world of wonders? And what allows for our patterns of denial and fuels our self-deception? All of the

above has to do with discernment. How can we develop discerning attitudes and actions among those who call themselves followers of Jesus, among our political leaders, among the general public? In order to answer that question, in what follows I first endeavor to put flesh on the biblical vision of shalom. I then explain what a virtue is and describe two virtues of shalom. I conclude with a portrayal of a person who embodies the virtue of ecological wisdom.

The Biblical Vision of Shalom

A vision of shalom (*sālôm*) is present throughout the Old Testament, but perhaps never more so than in the book of Isaiah. Isaiah envisions a kingdom of shalom. In wildly suggestive language the prophet says:

The wolf shall live with the lamb,
the leopard shall lie down with the kid,
the calf and the lion and the fatling together,
and a little child shall lead them.
The cow and the bear shall graze,
their young shall lie down together;
and the lion shall eat straw like the ox. (Is. 11:6-7)

Under what conditions could anyone imagine such a world of ecological harmony? When could it ever be said that “they will not hurt or harm on all my holy mountain?” (Is. 65:25) Only when the spirit of the Lord rests on the coming king—“the spirit of wisdom and understanding, the spirit of counsel and might, the spirit of knowledge and the fear of the LORD.” (Is. 11:2) Only when one comes to rule with righteousness (*sedāqāh*) and justice (*mispāt*). Only under such a rule will a peaceable kingdom come to be. Shalom is possible only if justice and righteousness first dwell in the land.

Of course, that is not the way it is now. Nor was it Israel’s reality after the exile. Shalom, justice, and righteousness were supplanted by enmity, oppression, and exploitation. But the ancient prophetic voice of Isaiah won’t have it. The prophet has two words for a world of weeping and distress--two radical words that imagine a different way of life: “No more.” No more weeping. No more cries of distress. No more premature deaths.

No more expropriation of land. No more injustice. No more cash crops. No more children for calamity. No more laboring in vain. Why not? Because God is making a new heaven and a new earth. Creation will again be a site of joy and delight. Jerusalem will once again be a city of shalom. Indeed, all cities will be cities of shalom. (Is. 65:17-25)

Isaiah offers us an audacious vision of a city that will bring an end to neglect, malnutrition, violence, disease, and premature death. There will be no children crying, because they will not be orphaned by either HIV/AIDS. There will be no expropriated land, because people will be secure in their homes, in a community with neighbors, with food sustainably produced. In this vision our labor is meaningful because we experience a day's good work as joy-filled stewardship of creation. In this vision we inhabit a city of shalom because it is a place of economic stability, care, and generosity. In this vision we indwell a renewed city in a restored creation. Isaiah's vision is of economic viability, ecological sustainability, and just resource distribution.

The New Testament has no shortage of similar texts, for this vision of shalom permeates its pages. To take only one example, Luke begins his gospel with multiple references to shalom (*eirênê* in Greek). After Mary has sung the Magnificat, about God's mercy to her and to her people, Zechariah the priest is filled with the Holy Spirit and full of joy at the birth of this baby boy. Praising God for his blessings and thanking God for his mercy, Zechariah exclaims:

By the tender mercy of our God,
the dawn from on high will break upon us,
to give light to those who sit in darkness and in the
shadow of death,
to guide our feet into the way of peace. (Luke 1:78-79)

God has remembered his covenant with the ancestors and raised up a savior-messiah who will guide the covenant people in the way of shalom—from darkness into light, from death to life. Not surprisingly, at the birth of this baby messiah the angels declare: “Glory to God in the highest heaven, and on earth peace among

those he favors!” (Luke 2:14) On earth, peace. In a time of violence, peace. This child shall be a harbinger and bringer of peace. And when the infant Jesus is brought to the Temple, devout old Simeon takes him in his aged arms and passionately prays:

Master, now you are dismissing your servant in peace,
according to your word;
for my eyes have seen your salvation,
which you have prepared in the presence of all peoples,
a light for revelation to the Gentiles,
and for glory to your people Israel. (Luke 2:29-32)

Now, says righteous Simeon, I can die in peace, for I have at last beheld with my own eyes the bearer of God’s salvation—not only for the Jews but also for the Gentiles.

Luke is not finished with God’s vision of shalom. Only two chapters later in his gospel he records Jesus’ inaugural sermon as he begins his public ministry. (Luke 4:14-30) Jesus returns to his hometown synagogue in Nazareth, where, filled with the power of the Holy Spirit, he is given the coveted chance to read the lesson from Scripture. In this case he reads from Isaiah 61: 1-2:

The Spirit of the Lord is upon me,
because he has anointed me
to bring good news to the poor.
He has sent me to proclaim release to the captives,
and recovery of sight to the blind,
to let the oppressed go free,
to proclaim the year of the Lord’s favor. (Luke 4: 18-19)

Jesus sits down to comment on the text, as the rabbis did, and not unsurprisingly we are told “The eyes of all in the synagogue were fixed upon him.” What will this crazy carpenter-rabbi say about this dynamite text? His first words fall like summer rain on parched ground: “Today this scripture has been fulfilled in your hearing.” In other words, Jesus says God’s Spirit is upon me. I am the one anointed to bring good news to the poor, the captive, the blind, the oppressed. I am God’s Chosen One, the Messiah,

who will, like Moses of old, bring God's people out of exile—an exile that engulfs them in their own land. I, says Jesus, am God's agent of shalom.

The story that follows, however, veers off in an unexpected direction. The Jews in Nazareth thought they had God all figured out. God loved them, but not the gentiles. God's salvation was for them, but not for people of another race or ethnic group and certainly not for those who had oppressed them and kept them as exiles in their own land. So Jesus deliberately picks a fight with the crowd by referring to two tales that were not exactly favorite bedtime stories for the folk in Nazareth: the story of Elijah saving the life of a Sidonite widow while Israelite widows died in a famine (1 Kings 17), and the story of Elisha healing the leprosy of Namaan, a Syrian military man who had oppressed Israelites and taken their children into slavery (2 Kings 5). By reminding them of what their very own Scripture teaches, Jesus insists that God's grace and mercy is as wide as the ocean and as high as the sky. God's love extends to widows in Zarephath and lepers from Syria—gentiles all. In God's kingdom of shalom there is no place for racism or ethnocentrism. As Luke makes crystal clear, this is precisely the kind of kingdom Jesus comes to inaugurate. If there is to be a realization of the prophetic vision of a kingdom of shalom, then this will be a kingdom as wide as creation, suffused with the most radical hospitality.

With Luke's special emphasis on God's mercy and Jesus' compassion – to all manner of outsiders, including slaves of Roman army officers, sonless widows, shunned women, bleeding women, crippled women, banished lepers, despised tax collectors – it is not surprising that Luke ends as he begins. Luke's Jesus bears witness to shalom. In his final chapter Luke records the last encounter of the disciples with the resurrected Christ. After two men met Jesus on the road to Emmaus, some of his disciples had gathered and were pondering that strange story. Jesus suddenly appears to them and greets them with "Peace be with you." (Luke 24:36) May God's assurance of safety defuse your feelings of fear. May God's blessing of knowledge answer your anxious questions. May God's promise of abiding presence

meet your lingering doubt. Luke's inclusion of shalom frames his gospel and its message.¹⁰

I offer three observations about this biblical vision of shalom. First, this vision of human flourishing is a vision of a flourishing *community*. This may seem an obvious or unnecessary statement, but not all visions of the good life are communal. Indeed, modernity privileges the autonomous individual as central to the good life.¹¹ In Scripture, however, shalom aims to describe a human community. In addition, shalom describes humans at peace *in all relationships*: with God, oneself, other people, and the natural world. We tend to limit shalom to our relationships with God or other people, but it is much more inclusive than that. Shalom is both communal and multirelational. Finally, this vision of human flourishing *includes more than humans*. Indeed, it is, strictly speaking, a vision of the flourishing of all things. As the biblical texts amply indicate, shalom includes wolves and lambs, trees and soil, forests and rivers. It has to do with all kinds of creatures living in right relationships.

In sum, shalom is the biblical vision of the flourishing of all things. Like a diamond with many facets, shalom is the name for that time and that place when all things thrive as God intends. Shalom is that end toward which God's people walk in faith. Walter Brueggemann observes: "The origin and destiny of God's people is to be on the road of *shalom*, which is to live out of joyous memories and toward greater anticipations."¹² We are pilgrims on the way of peace. We are sojourners on the road of shalom. We are homemakers yearning for the great banquet feast.

The Virtues

This discussion of the biblical vision of shalom naturally raises the question of how to bring such a state of universal flourishing into existence. For those wondering when I was going to get to the topic of this symposium, wonder no longer. With respect to "Discerning a Moral Environmental Ethic" my central claim is that the first (but not only) question to ask is: "What kind of people must we be?" In asking this question I mean to emphasize being rather than doing--virtues rather than

duties or consequences. Most scholars in ethics adopt one of two basic ethical perspectives: a focus on duties or attention to consequences. I side with those who argue that virtues are more important than either duties or consequences.

My reason, in brief, for adopting a virtue-based approach to ethics is quite simple. How we live depends on who we are. And who we are depends on the stories we identify with. Practices are rooted in character and character is rooted in story. My claim is that all human action is shaped in terms of narratively formed character. And this is so because human action, at least if self-aware and deliberative, is a matter of human intentionality. In other words, “We do not tell stories simply because they provide us a more colorful way to say what can be said in a different way, but because there is no other way we can articulate the richness of intentional activity—that is, behavior that is purposeful but not necessary.”¹³ There is, in short, a “narrative quality” to human action.¹⁴

Dwelling in our stories, we relate to “the origins and goals of our lives, as they embody in narrative form specific ways of acting out that relatedness. So in allowing ourselves to adopt and be adopted by a particular story, we are in fact assuming a set of practices which will shape the ways we relate to our world and destiny.”¹⁵ The stories we hear—of manifest destiny, of material prosperity, of a crazy carpenter from Nazareth—mold and shape our character.

Thus a virtue is a character trait formed by narrative. And because people are shaped by competing narratives, we find ourselves living in a world of competing understandings of what virtuous living looks like. For example, one strand of folk wisdom states that “Cleanliness is next to godliness.” But what is cleanliness? What is a clean home? That depends on what narrative most profoundly shapes that home. An American family shaped by 1950’s medically inspired preoccupation with germs and sanitation will have a different idea of cleanliness and defilement than a family that comes from a different part of the world and has been shaped by a different narrative. Indeed, Jesus found himself in a lot of trouble over the matter of cleanliness because he understood the story of the Jewish covenant

differently than the Pharisees. We may all agree that it is good to be clean, but the story we indwell will give us different understandings of what that actually means.

Thus our choices over time color the way we see ourselves and the world. There is an intimate connection between virtue and vision. As Gilbert Meilander states, "What duties we perceive--and even what dilemmas--may depend upon what virtues shape our vision of the world."¹⁶ We see the world differently, depending on how we have been formed by the virtues that constitute our character.

C.S. Lewis captures this point well in *The Magician's Nephew*, book 6 of *The Chronicles of Narnia*. The creation of Narnia by Aslan looks and feels very different for wicked Uncle Andrew than it does for the children. While the children find Narnia alluring and understand the words spoken by the animals, Uncle Andrew shrinks back in fear and hears only barking and howling. Indeed, because of his (evil) character he misses the whole point and misconstrues the very nature of both Aslan the creator and what is created. As the narrator comments: "For what you see and hear depends a good deal on where you are standing; it also depends on what sort of person you are."¹⁷

In summary, a virtue is a story-shaped, praiseworthy character trait formed by choices over time that disposes us to act in certain ways. It is a habitual disposition to act consistent with our most deeply grounded narrative. We know what is truly good and how to live well by drinking in certain narratives in particular communities and by looking to people of virtue as role models.

Virtues of Shalom or the Character of Earthkeeping

The vision of shalom we meet in the Bible arises out of a particular narrative preoccupied with themes of covenantal homemaking. To live into this story gives birth to the virtues of shalom in a community formed by this narrative. Let's go back to our original questions. What kind of people must we be in order to overcome the deafness and ignorance, indifference and denial that plague our culture? What traits of character are required to be discerning earthkeepers and agents of shalom?

There are many candidates. In my view four virtues are most important: peaceableness, justice, compassion, and wisdom.¹⁸ For this essay there is room to discuss only two.

Peaceableness

Before we can understand the virtue of peaceableness, we must first ask what peace is. Peace is, minimally, the absence of hostility. It is lack of enmity. It is a cease-fire between combatants. This is peace in the usual sense of the term. More positively, peace denotes concord or harmony in one's relationships. It is, to use the biblical language, righteousness. Peace in this sense is being in right relationships in all of the four ways previously mentioned: right relationships with God, with oneself, with other people, and with our non-human neighbors. The "rightness" in these relations is found in the absence of discord and the presence of harmony—a pleasing relationship of parts with each other.

If this is what peace is, then the virtue of peaceableness is the settled disposition to bring about concord among those in conflict. It is the rare and valuable skill of the consummate mediator who listens carefully to all sides, respects genuine differences, and manages to forge understanding and even agreement among warring factions—whether that is a married couple in crisis, union and management facing off across a picket line, or two countries locked in mortal combat. Peaceableness does not mean an inclination to appease or pacify by ignoring real conflict or sacrificing core principles. It does mean habitually acting in a conciliatory way, seeking by good will to bridge differences and unite antagonists.

Peaceableness requires, among other things, honesty. It demands a steadfast refusal to deceive oneself or anyone else, plus a perceptible sincerity of intention and straightforwardness of conduct. The making of peace, in other words, is contingent on truth telling and transparency. Peaceableness also requires courage, or firmness of resolve in the presence of danger. It entails tenacity in the face of opposition and persistence in the face of adversity, because the making of peace is seldom easy or quick. Peaceableness is, in sum, the settled disposition to seek concord, infused with honesty and courage.

As the example of Christ profoundly indicates, peaceableness may require great sacrifice. It may mean personally bearing evil in order to break the cycle of violence. This realization is powerfully evident in the writings and life of Martin Luther King, Jr. For example, in his essay "Nonviolence: The Only Road to Freedom" King writes that the creation of a world of shalom "will be accomplished by persons who have the courage to put an end to suffering by willingly suffering themselves rather than inflict suffering on others." And in his famous 1967 Christmas Eve sermon on peace, King states: "Somehow we must be able to stand up before our most bitter opponents and say: 'We shall match your capacity to inflict suffering by our capacity to endure suffering. We will meet your physical force with soul force. Do to us what you will and we will still love you.'¹⁹ "Blessed are the peacemakers," says Jesus in one of his famous beatitudes, "for they will be called children of God" (Matthew 5:9). Blessed are those who habitually act in ways that overcome enmity and bring about harmony, even when the personal cost is high.

The vice contrary to the virtue of peaceableness is contentiousness.²⁰ It is the disposition to be quarrelsome, belligerent, and disputatious. And beyond mere verbal attack, it is the disposition to foment strife and enmity. Contentiousness feeds on rage and rancor, antipathy and animosity, to fan the fire of discord and accelerate the spiral of violence. The contentious person relishes the dissonant chord and delights in despoiling right relationships. He or she habitually acts to disturb the peace, not in the manner of a righteous prophet disrupting a false "peace," but akin to a sullen adolescent who is always itching to disrupt life at home, or an ecological vandal whose actions foment more destruction.

In summary, peaceable people seek long-term, nonviolent solutions for those in the death grip of poverty. Peaceable people expose the emptiness of consumerism, not with an air of condemnation but in the spirit of conciliation. Peaceable people refuse to stereotype those with whom they disagree in the heated controversy over the local watershed, nor do they belittle those whose views of globalization do not coincide with theirs. Peaceable people know when to say enough is enough. In our

culture of perpetual conflict, people of peace are like a healing balm on an open wound.

Wisdom

Shalom includes more than peaceableness. Peaceableness is necessary but not sufficient for shalom. Shalom would not be shalom without it, but there is something more. Shalom can never be realized in the day-to-day messiness of our lives without wisdom. Wisdom is the ability to discern paths of shalom in the midst of competing visions and conflicting interests. Such wisdom, at heart, is not an achievement but a gift. Listen to the way Proverbs puts it:

For the Lord gives wisdom;
from his mouth come knowledge and understanding;
he stores up sound wisdom for the upright;
he is a shield to those who walk blamelessly,
guarding the paths of justice
and preserving the way of the faithful ones.
Then you will understand righteousness and justice
and equity, every good path. (Prov. 2:6-7)

Those who are given wisdom are those who “fear the Lord,” (Prov. 1:7; see also Prov. 9:10, Job 28:28; and Psalm 111:10), those who live in covenant with their Creator. Such people understand righteousness and justice. In their lives of compassionate fidelity, they discover that the ways of wisdom are “pleasantness, and all her paths are peace.” (Prov. 3:17)

Wisdom, then, is the ability to discern compassionate paths of justice and peace. But such discernment is rooted most foundationally in being deeply attuned to God’s ways with creation. Listen again to Proverbs:

The Lord by wisdom founded the earth;
by understanding he established the heavens;
by his knowledge the deeps broke open,
and the clouds drop down the dew. (Prov. 3:19; cf. Psalm 104:24)

Wisdom is depicted as the master craftsman at the Creator's side at the dawn of all things. (Prov. 8:22-31) Creation is founded upon and suffused with wisdom, and wisdom will not be found apart from a deep, ongoing attentiveness to this creation in all of its dynamic, complex, and wonderful interrelatedness. Wisdom will be "at home in the mind of the one who has understanding," (Prov. 14:33) and will direct how such a person, and such a community, will be at home in the world with each other. This is why Isaiah's messianic king is a man of wisdom and understanding, counsel and might, knowledge and the fear of the Lord. (Is. 11:2)

The virtue of wisdom, then, is the settled disposition to make discerning practical judgments. The wise person is disposed to make insightful judgments. The wise person is habitually discerning. The virtue of wisdom, furthermore, is shot through with an abiding awareness of life's precariousness, an understanding and prizing of the excellences of life, and an unwavering sense of thanksgiving for the sheer giftedness of life. As a student once wrote: "I realize now how fragile and delicate life really is, and that has helped me to appreciate it more. I also know that there are many things I cannot take for granted any more." Awareness, appreciation, gratitude--such is the grammar of wisdom.²¹

Therefore, in matters ecological the wise consider the long-term consequences. The ecologically wise exercise restraint and take their time because they are attuned to the cycles and scales of the natural world. And the ecologically wise see everything connected to everything else, and thus adopt the canoe camper's version of the Golden Rule: treat those downstream as you would have those upstream treat you.

If wisdom is a matter of being attuned to creation and discerning paths of justice, then foolishness is being profoundly out of touch; it is the habitual absence of sound judgment or discernment. The fool follows paths of self-interest and violence because he knows nothing of justice or compassion. The fool confuses the "goods life" for the "good life." Ecologically speaking, foolishness is the disposition to act as if the earth is endlessly exploitable and expendable. Ecological services such as the natural purification of water are invisible to the fool, and

ecological costs such as air pollution are mere externalities. By living only for today the fool acts as if the future does not matter. Blind to the future the fool eats the last seed corn.²²

In summary, wise people resist the siren song of the false god More Stuff. Wise people remind a culture infatuated with the “worldwide web” that the original and truly important worldwide web is biodiversity. Wise people take into account the consequences of their actions for at least seven generations. Wise people view our home planet as a holy mystery, finite in all its glory, and thus see “prosperity” for what it truly is—the long-term ruination of God’s good earth. In a world of short-term profit and long-term pain, people of wisdom are like a blaze of light on a dark night.

Practices of Earthkeepers

Kent runs a church camp in upstate New York. In the summer, he trains staff, deals with emergencies, and pays the bills. He also tells bedtime stories to the many kids who flock to camp, and when he gets a chance joins in the evening music by playing his mandolin. The rest of the year he runs retreats, raises money, and promotes the camp among neighbors near and far. In his spare time he puts up bat houses, cleans composting toilets, and cultivates an organic garden in unforgiving Adirondack soil. The work is seemingly endless, the job never done.

You sense things are different the moment you arrive at Camp Fowler. Whether it’s the sign by the parking area that reads “Future world and local leaders in training here,” the bicycles the maintenance workers use to haul their gear around camp, or log buildings that properly fit their north woods setting, you sense that this camp has been carefully thought through. Your first impressions are confirmed at the first meal: the menu includes organic and vegetarian items seldom found among typical camp fare, prepared by a woman who got a master’s degree in home economics so she could more knowledgeably align the kitchen practices with the core values of the camp. After the meal the campers have a competition to determine which cabin had the least amount of non-compostable food left over, with all the compostable leftovers going into the bear-proof compost bins near the garden.

This is no ordinary Christian camp. There are certainly many of the usual staples of church camp: morning worship before breakfast, time each day devoted to learning the stories of the Bible, chapel time at night with enthusiastic singing. Much of this is led by a local minister who volunteers as chaplain for the week. There are wilderness trips for fishing, sailing, canoeing, and backpacking. Indeed, the Camp Fowler philosophy is similar to many Christian camps: to glorify God, to foster growth in Jesus Christ as Lord, to experience life in a Christian community, to encourage people to live as disciples of Christ. But what is striking at Camp Fowler is that all of it is suffused with a spirit of shalom. Among the camp's core values are simplicity, hospitality, and community. In recent years its summer-long themes have been peace and justice. And woven through everything is the theme of earthkeeping.

Kent has been at Fowler since 1986, and his imprint more than two decades later is now considerable. Through the years he has intentionally and creatively shaped the place and its practices to reflect the core values of the gospel, not least of which is the commitment to caring for the earth. But that care is always specific to a particular place. So Kent knows the history of his camp, and while he has learned much from its past he is not slavishly bound by it. Kent also knows his home place well, the nonhuman as well as human inhabitants. He knows the pileated woodpeckers and barred owls, the tamarack and the golden birch, as well as the director of the library in the local village and the owner of the local paddle shop down the road. Because of his extensive local knowledge, Kent is able to discern the possibilities and the limits of his place. He knows when enough is enough, and thus resists the pressures to think bigger is better. Consequently, the camp remains relatively small--of a human and humane scale. In short, Camp Fowler incarnates a kind of wisdom, and this wisdom joins arms with an infectious joy, such that all who come to Fowler--campers, volunteers, staff--catch the spirit of Kent's joyful wisdom and wisdom-filled joy. Kent Busman embodies the earthkeeping virtue of wisdom.

Christians as Aching Visionaries

The epigraph at the beginning from Desmond Tutu captures well the essence of shalom. The summit of human

flourishing, Tutu affirms, is multifaceted: peace and justice, compassion and caring, joy and delight. Shalom is the flourishing of all things created, the reconciliation of all things estranged, and the consummation of all things incomplete. It is heaven on earth.

We who follow Jesus are called to make this vision of shalom real. We yearn for the fullness of shalom to come to fruition. As Richard Mouw puts it, “We must share in God’s restless yearning for the renewal of the cosmos”²³ So in the Lord’s Prayer we pray that God’s will be done *on earth* as it is in heaven. In the doxology we sing that all creatures *here below* might praise God. In the Apostles’ Creed we confess our faith in the *resurrection of the dead* and life everlasting. And in our everyday living we strive, with God’s help, to make this vision *incarnate*. We yearn for the biblical vision of shalom to be made real. We are, in short, visionaries.

In a world of ecological homelessness, shalom is often in short supply. It is known as much by its absence as by its presence. And so our yearning is tinged with sadness. We mourn the loss of what was good and right. We grieve for what could and should have been. Thus we are not only visionaries, but aching visionaries. We ache because we painfully realize that the time of shalom, in all its glorious fullness, is not yet here.²⁴

We followers of Jesus are called to be aching visionaries. Inspired by God’s vision of shalom and mindful of how far the world is from realizing that vision, we yearn for that realm of peace and justice and compassion and wisdom of which the Bible speaks. We yearn and work for God’s good future of shalom.

¹ Desmond Tutu, *God Has A Dream* (New York: Doubleday, 2004), 128. The issues of this paper have been explored in much greater detail in Steven Bouma-Prediger and Brian Walsh, *Beyond Homelessness: Christian Faith in a Culture of Displacement* (Grand Rapids: Eerdmans, 2008), especially chs. 5-6.

² Moby, from the CD *Everything Is Wrong* ©1995 Mute Records.

³ While the names have been changed, this discussion is based on actual student papers and conversation, used with permission. Reflecting the

ambiguity and ambivalence of this issue, one paper is entitled “Sad State of Homelessness” but is subtitled “Why Homelessness Is Not Necessarily Hopelessness.”

⁴ Many sources could be cited to support this claim. For one recent recital of evidence of ecological degradation, see James Gustave Speth, *The Bridge at the Edge of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability* (New Haven: Yale University Press, 2008).

⁵ Thomas Berry, *The Dream of the Earth* (San Francisco: Sierra Club, 1988), 16-17.

⁶ See www.neetf.org/roper/roper.shtm, the website of the National Environmental Education and Training Foundation.

⁷ This, in fact, is the title of one of the sections of their article “What Knowledge Is Required for Responsible Stewardship of Creation?” in *Christian Scholar’s Review*, vol. 32, no. 4 (summer 2003). For a trenchant critique of ecological illiteracy and a compelling alternative, see David Orr, *Ecological Literacy* (Albany: SUNY, 1992), especially part 2.

⁸ Mark Lynas, *High Tide: The Truth About Our Climate Crisis* (New York: Picador, 2004), 296.

⁹ Aldo Leopold, *Sand County Almanac* (New York: Ballantine, 1966), 197. James Speth, interestingly, titled the first chapter of his book *Red Sky at Morning* “A World of Wounds.”

¹⁰ In his second volume, the Acts of the Apostles, Luke includes a succinct summary of the gospel (Acts 10:34-43). In a speech to Cornelius and his clan, Peter states: “I truly understand that God shows no partiality, but in every nation anyone who fears him and does what is right is acceptable to him. You know the message he sent to the people of Israel, preaching peace by Jesus Christ—he is Lord of all.” In short, God’s message to his people is this: Jesus is Lord, and this Jesus is God’s embodiment of shalom.

¹¹ See Charles Taylor, *Sources of the Self: The Making of the Modern Identity* (Cambridge, MA: Harvard University Press, 1992).

¹² Walter Brueggemann, *Living Toward a Vision* (Philadelphia: United Church Press, 1982), 16. Neal Plantinga captures this well: “The webbing together of God, humans, and all creation in justice, fulfillment, and delight is what the Hebrew prophets call *shalom*. We call it peace, but it means far more than mere peace of mind or a cease-fire between enemies. In the Bible *shalom* means *universal flourishing, wholeness, and delight*—a rich state of affairs in which natural needs are satisfied and natural gifts are fruitfully employed, a state of affairs that inspires joyful wonder as its Creator and Savior opens doors and welcomes the creatures in whom he delights. Shalom, in other words, is the

way things ought to be. *Not The Way It's Supposed To Be* (Grand Rapids, Eerdmans, 1994), 10.

¹³ Stanley Hauerwas, *Truthfulness and Tragedy* (Notre Dame: University of Notre Dame Press, 1977), 76.

¹⁴ See Stephen Crites's influential essay, "The Narrative Quality of Experience," in Stanley Hauerwas and L. Gregory Jones, eds. *Why Narrative? Readings in Narrative Theology* (Grand Rapids: Eerdmans, 1989), 65-88. See also Paul Ricoeur, *Time and Narrative*, vols. 1-3 (Chicago: University of Chicago Press, 1990). I unpack the implications for a virtue ethic rooted in narrative and character formation for ecological ethics in Steven Bouma-Prediger, *For the Beauty of the Earth* (Grand Rapids, Baker Academic, 2001), ch. 6.

¹⁵ Stanley Hauerwas and David Burrell, "From System to Story: An Alternative Pattern for Rationality in Ethics," in *Why Narrative?*, 186.

¹⁶ Gilbert Meilander, "Virtue in Contemporary Religious Thought," in *Virtue--Public and Private*, ed. Richard John Neuhaus (Grand Rapids: Eerdmans, 1986), 9.

¹⁷ C. S. Lewis, *The Magician's Nephew* (New York: Macmillan, 1978), 125.

¹⁸ Why, some might ask, these four? In brief, these four are absolutely central to the embodiment of shalom. Peaceableness lies at the very center of what shalom is. Justice and compassion are essential to the realization of shalom. And the practice of love and compassion require wisdom.

¹⁹ In *A Testament of Hope*, ed. James Washington (New York: HarperCollins, 1986), 61, 256. This way of nonviolence is also prophetically clear in the writings and life of martyred Salvadorean archbishop Oscar Romero. See, e.g., the collection *The Violence of Love* (Farmington, PA: Plough Publishing House, 1998).

²⁰ Contrary to Aristotle, who argues that every (or almost every) virtue has two associated vices--since a virtue is a kind of mean between two extremes, I claim that the virtues outlined here have only one vice, since they are not means between extremes but intrinsic goods. So one can never get enough peaceableness or justice or compassion or wisdom. There is no vice of excess, only a vice of deficiency.

²¹ For an excellent discussion of gratitude, see Lewis Smedes, *A Pretty Good Person* (San Francisco: Harper and Row, 1990), ch. 1.

²² Holmes Rolston, III, *Environmental Ethics* (Philadelphia: Temple University Press, 1988), 278. Rolston's scientifically informed and philosophically sophisticated ethical theory is still one of the best, with many sound practical maxims for environmental policy and business.

²³ Richard Mouw, *When the Kings Come Marching In* (Grand Rapids: Eerdmans, 1983) 65.

²⁴ In his moving meditations on the occasion of the untimely death of his son, Nicholas Wolterstorff speaks of Christians in precisely these terms as aching visionaries. See Nicholas Wolterstorff, *Lament for a Son* (Grand Rapids: Eerdmans, 1987), 85-86.



Response to Steven Bouma-Prediger

**Errol G Rohr
King College**

I grew up in a small country town of 500 southeast of Dayton, Ohio. Bellbrook was surrounded by lush farms irrigated by the Little Miami River and the picturesque Sugar Creek. The town was gated on the east, west, and south by three covered bridges that lent themselves not only to traffic but to various rites of passage for our youth. Whether we grew up on the farm or in the town, whether our dads and moms tilled the soil or worked in the Dayton factories, we were all physically and spiritually connected to the land. We knew where our food came from and we knew the sweat, hard work, and worry it took to get food to our tables. Like all my friends, if we did not live on a farm, we at least spent our summers working on one by bailing hay, planting crops, and stringing fences. The local employment agency was a wood bench at the singular gas station in the center of town. We would sit there sipping cokes infused with peanuts until a farmer would show up and hire us for the day at 50 cents an hour. My maternal grandfather was a farmer. Some of my earliest recollections are those of riding on the back of a horse, and later on an old Farm-All tractor as my grandfather plowed his fields. He loved the land and, even into his late nineties, kept a garden. I have a picture of him at 90+ years old holding a giant pumpkin he had nurtured to maturity.

I mention this personal, agrarian history because I think that one is more likely to identify with the “Shalom of Earthkeeping,” as Steven Bouma-Prediger suggests, if one has a conscious, positive identity with and relationship to the good

earth. Such a relationship is increasingly difficult to come by in our urbanized and technologically sophisticated culture. Few of us even visit farms these days, let alone live on one. I recently spent a day with my closest high school friend who after retiring as a corporate executive bought a small farm in Ohio. He tells me that he is now doing what he has wanted to do all his life. He is one of the few who have returned to the land. Most are leaving it and in doing so are less likely to want to care for it, religious convictions notwithstanding.

The ideal for a close, positive relationship with the earth can be found in the novels and essays of Wendell Berry. For example, in his novel, The Memory of Old Jack, after Jack has finally paid off the mortgage on his farm, Berry lets us in on Jack's private thoughts:

Clear and whole before him [Jack] now he sees the object of his faith as he has not seen it for fifteen years. And he feels opening in himself the stillness of a mown field, such a peace as he has never known. For the last five years he has lived at the limit of his strength, not looking up from the ground, perishing at night into lonely sleep as though his bed was a grave from which he rose again in the dark, sore in his bones, to take up again the labor of repaying the past. And now, the shudder of realization in his flesh, he sees that he has come through. He has been faithful to his land, through all its yearly changes from maiden to mother, the bride and wife and widow of men like himself since the world began. (Berry, Wendell, The Memory of Old Jack. Washington, D.C.: Counterpoint, 1974, 122).

Berry's point is that when we finally come to accurately understand our proper place in Creation, we are made whole. It seems to me that this understanding of one's proper place in Creation is the best starting point for capturing the essence of the biblical vision of shalom and the character of earth-keeping. Bouma-Prediger is right in pointing us to a virtue-based ethic as

we seek to be responsible stewards of the earth. Like Aristotle, Steven and I both affirm that character formation is the bedrock of moral decision-making more so than rules and outcomes, and that achieving a virtuous character takes practice each and every day. Aristotle warns us that if we want to be persons characterized by justice, we must each day practice being just in the concrete situations in which we find ourselves. If we want to have the virtue of courage, then we should act courageously whenever the opportunity arises. Through practice, we become a courageous person or a just person who characteristically does the virtuous thing. In good Aristotelian fashion, Ivan Rutledge, former Dean of the Ohio State University Law School would tell his students, in the wake of the Watergate moral debacle that the most important question for them was not “what kind of lawyer they should become, but what kind of person they should be as a lawyer.” In a nut-shell, that is virtue-based ethics.

It should go without saying that I affirm the virtues of justice, compassion, wisdom and peaceableness that Professor Bouma-Prediger mentions. I could not agree with him more about their nature and purpose. These virtues are especially important for good earth stewardship. His insights into peaceableness and wisdom only make me wish he had had the time to inform us about justice and compassion, as well. Nevertheless, I think the starting point for biblical shalom is not with wisdom and peaceableness, nor with justice and compassion, but with the virtue of humility. The others are important, but I think humility comes first, or at the very least I would like to add it to the conversation as vitally important. I will venture to explain why.

In an important sense, humility is the virtue that prepares the way, or lays the ground for all the other virtues and is a necessary, prior condition for environmental stewardship in the 21st century. I don't say this because humility is my all time favorite virtue, or because it is easily attained, but because it is necessary for the learning process as a whole. If we are to move in a radically different direction from the one that has dominated for years, and if we are to shift the paradigm from being plunderers of the earth to preservers and stewards of the earth, then we must first see the error of our ways and be open to a new

vision. It takes humility to begin this paradigm shift. One of my philosophy teachers, Walter Kaufmann at Princeton University, once told his class that if we were to be good students we must be “humble before truth.” He was advocating an attitude of openness and curiosity. He was asking us to be good listeners and observers, careful collectors of knowledge, information, and wisdom all around us from whatever source. He was asking us to consider the fact that we may not have all the truth and that truth sometimes comes in strange disguises and from crazy sources. It takes a healthy dose of humility to see this. An even better teacher, Jesus of Nazareth, told his students, “Therefore, whoever humbles himself like this child is greatest in the kingdom of heaven.” (Matthew 18:4) Humility can translate into the greatest in the kingdom of heaven, no less! And what greater example of this than Christ himself who, as Scripture says, “...made himself nothing, taking the very nature of a servant, being made in human likeness. And being found in appearance as a man, he humbled himself and became obedient to death – even death on a cross.” (Philippians 2: 7-8) St. Augustine regarded humility as the virtue “especially esteemed in the City of God and so recommended to its citizens in their present pilgrimage on earth...because it is one that was particularly outstanding in Christ.” (The City of God, Vernon J. Bourke (ed.), New York: Image Books, Book XIV, Chapter 13, 310). For Augustine, humility consists in lifting one’s heart up in obedience to God rather than in obedience to self. (Ibid.,309) Today’s worship of autonomy was out of the question for Augustine, which make his sentiments especially relevant for our time and place.

I am suggesting that before we do something about the environment we need a new perspective on ourselves in relation to the environment. As the Buddhist maxim commands, “Don’t just do something, stand there.” Once again, I think that Wendell Berry has much to teach us in this regard. In his essay, “The Body and The Earth,” he extols the virtue of humility as a new way of seeing:

Old Chinese landscape paintings reveal, among towering mountains, the frail outline of a roof or a tiny human figure passing along a road on foot

or horseback. These landscapes are almost always populated. There is no implication of a dehumanized interest in nature ‘for its own sake.’ What is represented is a world in which humans belong, but which does not belong to humans in any tidy economic sense; the Creation provides a place for humans, but it is greater than humanity and within it even great men are small. Such humility is the consequence of an accurate insight, ecological in its bearing, not a pious deference to ‘spiritual’ value. (Berry, Wendell, “The Body and the Earth” in The Art of the Commonplace, Norman Wirzba [ed]. Emeryville, CA: Shoemaker and Hoard, 2002, 94).

“Such humility,” Berry writes, “is the consequence of an accurate insight, ecological in its bearing....” It takes humility to see it and humility to receive it.

In essence, humility is freedom from false pride, arrogance and self-interest. It is first of all more like giving something up and only second is it taking something on. In terms of the Chinese landscape painting just mentioned, we give up thinking that we are the “measure of all things” and take on those actions that grace others and the world around us. It is asking us, in good Augustinian fashion, to love God, others, the world, and self in proper order.

However, we have a problem with directly practicing or attaining the virtue of humility. Strangely, it is a virtue that is rarely or never gained by actually seeking it. With the virtues of courage or justice it is more clearly understood as to how to practice them assuming that one knows their true nature. But with humility, it is more difficult to openly practice it less one fall prey to a contradiction. To state that we have humility, or even to think that we do, is somewhat positive evidence that we don’t.

I would like to suggest that we come at the virtue of humility obliquely or even clandestinely, an idea borrowed from

Richard Foster. As Richard Foster argues, we best come at humility through service. He writes, “More than any other single way, the grace of humility is worked into our lives through the discipline of service.” (Richard Foster, Celebration of Discipline. San Francisco: Harper and Row, Rev.Ed., 1988, 130). Foster goes on to advise us that the less self is recognized and promoted in our service efforts, the more the virtue of humility is appropriated.

As teachers and administrators in colleges and universities we have a particular set of skills and obligations to educate each succeeding generation to be “humble before truth” and to seek ways to use knowledge and skills in service for the good of the earth and humankind. We do this fairly well through our promotion of service projects and mission programs domestically and internationally. My own college has a well structured set of weekly programs that reach out in the greater community to serve people in need and during spring break and May Term sends faculty and students all over the world to serve in various capacities. When this is done, not only are needy persons served in compassionate and loving ways, but new personal perspectives are gained and potential global servants are born.

However, I think we have a lot to learn in our scholarly communities about how to teach for biblical shalom and earthkeeping across the curriculum. I teach several courses on ethics and one of those courses has a unit on the environment. That seems straightforward and simple. But such is hardly enough. The real question is how do we in the academic community train men and women for moral and spiritual leadership regarding good earth-keeping and do so across the entire curriculum? A document entitled “American College and University President’s Climate Commitment,” a group that has come together to address global warming and other related environmental issues, states that “presidents and chancellors are leading this effort because they can best establish the moral leadership and strategic direction that is needed to address this challenge.”

The group is taking a number of action initiatives to make their campuses “green.” I applaud their commitment and their initiatives. However, other than setting a good example, which is definitely a positive, the document does not adequately address how the university will go about training for “moral leadership and strategic direction” among its students. This is where I think we need a great deal of wisdom, and even more importantly, a great deal of humility in recognizing our weaknesses and in serving the real needs of our global society.

I think the pathway for moral leadership regarding the environment in our colleges and universities is an integrated, well thought out service component that engages faculty, staff and students alike in all aspects of our curriculum and community life. We need to teach our students to “be humble before truth” and to see the importance of serving others and the environment no matter what occupation or profession they enter. The motto for such an action plan could be the one espoused by the Prophet Micah, “Act justly, love mercy, and walk humbly with your God.” (Micah 6:8)



Response to Steven-Bouma Prediger

Ben Cash
Maryville College

I thank Dr. Bouma-Prediger for a thought provoking paper and one that challenged me to look both within and around me, indeed in somewhat unfamiliar waters, for my perspective on the idea of *Shalom* and how it relates to one's environmental ethic. I will not critique his paper as much as react to it. I believe the true essence of our symposium is most sincerely achieved by my reactions to the perspectives of a religion scholar, or as Ron Wells put it to me, the reactions from a "science guy". That and perhaps if I could pick any discipline I feel less equipped to speak intelligently about, it may in fact be religion. But, my perspectives are colored by my own journey to my environmental ethic; one which does include the influence of religious environmental stewardship.

The paper brought out some interesting recollections and experiences I can share as an ecologist who has a broad background working in many places and educating various public groups. I also was reminded of my own challenges in coming to grips with the many contradictory aspects of environmental stewardship from the Christian perspective. I quickly found myself in familiar territory in the opening of Steven's work where he relates a discussion of the sad state of the environment among students in one of his classes. This could have been my own Environmental Policy and Science class or even my Ecology and Evolution course. Students have a way of bringing fresh perspective to an old problem.

I recently taught a January-term course entitled "Land Use History of the Southeast". This course stemmed from a Funding

in Post Secondary Education (FIPSE) grant to me and my colleague Mark O’Gorman. The core of our project had students from different colleges in the UK and US considering the differences and similarities of historic land-use between the two countries. And ironically, it was me, perhaps more than students, who learned how deeply this concept of “sense of place” plays in my own environmental ethic. From writers like Wendell Berry, who understood the importance of “sense of place” before most of us, we have learned how our inward knowledge of our surroundings plays a role in respect (or even reverence) for an environmental issue.

One example of what I make much use is the status of long-leaf pine/wiregrass flatwoods in the southeastern Coastal Plain of the US. The story is familiar to me. The story is about my place. This place is where I spent years tending beehives and working on my Master of Science degree in wetland ecology. This is an ecologically distinct system, with a high degree of endemism, particularly when it comes to plants, amphibians and birds. But, beginning in the 19th century, these habitats were largely converted to a monoculture pine-producing forest (or I should say crop). And there are many issues that jump out of this environmental saga of the flatwoods, but one seems appropriate in highlighting the challenge of reaching *Shalom* in our care for the earth. The eastern diamondback rattlesnake is an important biological component in these habitats. The snake is large bodied, commonly reaching lengths over 6 feet. The snake is beautiful and mysterious. Cryptic in coloration and behavior, the eastern diamondback is rarely encountered. But, the snake is formidable. It is one of the few venomous snakes in the Southeast that requires immediate medical attention for a bite victim. Eastern diamondbacks are responsible for most snakebite mortalities in the southeastern US (although Whit Gibbons points out that more people are killed each year in the US by vending machines falling on them than by snakebite).

This reputation has led to thousands of these beautiful animals being gathered each year in “Rattlesnake Roundups” with the admitted intent to reduce their numbers. In Claxton, Georgia, thousands of God-fearing, law abiding people in direct conflict with the teaching of *Shalom* – peace and completeness. Snakes are collected by hunters however they can get them.

Many are collected while lying on asphalt roadways; attracted to the heat absorbed by the pavement. But most are captured by savvy hunters directly from their habitat. The process of collection is not altogether pleasant. Many times eastern diamondback rattlesnakes seek retreat in gopher tortoise burrows. The tortoises dig elaborate burrows down into the loamy soils of the sandy flatwoods. The snakes, as well as 400+ other species associated with these burrows, seek retreat in these havens. To get at them, hunters put a garden hose down the burrow, wiggle it, and listen for movement. Hearing movement, a dram of gasoline is poured into the hose and blown into the burrow. Presumably, the fumes cause the snakes to exit the burrow, although there is scant evidence that this actually works effectively, thereby sentencing whatever may be in the burrow, (including the snakes) to slow death by asphyxiation. Those snakes captured are held until one of the annual Rattlesnake Roundups. At the roundup, snakes are held for a short time, but most end up being sold for their skin. They will become hatbands and belts for people that have probably never seen the snake in the wild. For me, this problem in conservation represents the enormous hurdle in achieving *Shalom*. Animals made evil in the biblical context, capable of killing individuals, rounded up ritualistically by the thousands and killed. How do we get to *Shalom* from here?

Steven quotes Thomas Berry from his definitive work on the integration of science, theology and ecology: “Our scientific inquiries into the natural world have produced a certain atrophy in our human responses.” This sentiment is something I have experienced before, and I agree with this on some level. We are inundated with details in science. The sheer volume of investigations often at the finest scale can produce a certain numbness of sensitivity to the broader topic. The implication that students may take away from this is the age old picture of the Balnibarbian scientist painted by Jonathan Swift in *Gulliver’s Travels*. These brush strokes lead to a portrait of science disenfranchised from Nature, the very object of its pursuits of understanding. Why are there not more scientists to profess the wonder and deep reverence for Nature? I would only ask that we acknowledge that a scientist outwardly activist about the topic they study risks jeopardizing the foundational elements of the

scientific philosophy (as outlined by David Hume, Karl Popper, and Imre Lakatos) and may risk their credibility to speak authoritatively about their expertise. Why are scientists not more vocal? We must be unbiased observers. To assume that we are all Balnibarbian misses the point, and I think misses what the philosophy of science teaches us.

Finally, to assume also that scientists are not inwardly moved by spiritual forces is probably a false assumption for many of us. Lest we forget that, while the philosophy of science has been around for 400 years, it has not been so long since our leading naturalists were also often our leading theologians. We see this foundation in this quote from William Bartram, an English naturalist who spent many years wandering the Southeast in the late 18th century, “We admire the mechanism of a watch, and the fabric of a piece of brocade, as being the production of art; these merit our admiration, and must excite our esteem for the ingenious artist or modifier, but nature is the work of God omnipotent...”. Whatever the inward motivation of the scientist, if we are to reach *Shalom*, balance, completeness, harmony with the earth, we have to find a way to revere the eastern diamondback rattlesnake.

¹ Bartram, William, 1998. *Travels of William Bartram: Naturalist Edition*. University of Georgia Press, Athens. 824.

² Berry, Thomas. 1988. *The Dream of the Earth*. Sierra Club Press, San Francisco, 264.

³ Berry, Wendell. 2001. *Place on Earth*. Counterpoint Press, Berkeley. 336.

⁴ Gibbons, Whit. 1993. *Keeping All the Pieces: Perspectives on Natural History and the Environment*. Smithsonian Institution Press, Washington D.C. 182.

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Catholic Social Teaching and Environmental Justice: Faithful Stewards of God’s Creation

**Cecilia Calvo
Catholic Bishops Conference**

Introduction

The Environmental Justice Program of the United States Conference of Catholic Bishops, (USCCB) was created in 1993, and was a response to the commitment made by the bishops in their 1991 statement, *Renewing the Earth* “to see how we contribute to the destruction or neglect of the environment and how we might assist in its protection and restoration.” It was also a response to the challenge made by, Pope John Paul II in his 1990 World Day of Peace Message, *The Ecological Crisis: A Common Responsibility*. In this message he declared the environment to be a “moral issue” and reminded the world of an “urgent moral need for a new solidarity.” With this call it became clear that environmental concerns needed to be addressed “as a matter of faith in regards to our response to the Creator—and as a matter of ethics—our obligations to our neighbor and other creatures.”¹

The bishops seek to make a distinctive and authentically Catholic contribution to environmental questions by lifting up the moral dimensions of these issues and the needs of the most vulnerable among us. The Catholic Church offers a set of principles and a moral framework that can help guide individuals and decision-makers as they consider and adopt solutions. There are four values and one virtue that shape this distinct Catholic vision. The human person at the center of the debate around the

environment, respect for the order and integrity of creation, a concern for the common good, and placing the needs of the poor at the center of our attention as we search for sustainable and just solutions.

After examining these principles that shape a Catholic approach to environmental issues, we will explore how this moral framework shapes a distinctively Catholic approach to one of the most serious environmental challenges of our time, climate change.

Human life and dignity

“In Catholic theology, the human person has a unique dignity, as well as a unique place and role in creation as beautifully portrayed in Genesis in the creation stories.”² Every person possesses a basic dignity that comes from God, not from any human quality or accomplishment, not from race or gender, age or economic status.³ Human life and dignity are sacred and all human beings are loved and valued by God. Catholic social principles are built on this innate dignity of the human person.

The Church has recognized the close link between protecting human life and dignity and protecting God’s creation. One is compatible with the other. If human life is to flourish and people, especially the poor and vulnerable among us, are to live with dignity, then the environment must also flourish.⁴ The bishops highlight this important relationship in their 1991 statement, *Renewing the Earth: An Invitation to Reflection and Action on Environment in Light of Catholic Social Teaching*, “Our tradition calls us to protect the life and dignity of the human person, and it is clear that this task can not be separated from the care and defense of all creation.” However, as the Catholic bishops said, “Christian love forbids choosing between people and the planet ... It urges us to work for an equitable and sustainable future in which all peoples can share in the bounty of the earth and in which the earth itself is protected from predatory use.”⁵

Christian faith (responsibility) begins with the appreciation of the goodness of *all* of God’s creation. As told in the story of Genesis, “God looked at everything he had made and

he found it very good.” (Gen 1:31) At the center of a Catholic view of the environment is God himself. A Catholic understanding of the environment begins with the recognition of God as our creator. As Pope Benedict XVI reminds Catholics, care for creation is a sign of respect for God the creator and an essential part of our faith. People share the earth and a common origin in God with all other creatures. The human person, however, has a unique role within creation. As the bishops highlight in their statement, *Renewing the Earth*, the human person is charged with safeguarding creation, “Humans, made in the image and likeness of God, are called in a special way to “cultivate and care for it.” (Gen 2:15).

Promoting the Common Good

Through the Catholic moral lens, the environment is viewed as a common good that is meant to be enjoyed by all. As Pope John Paul II reminds us in his 1990 World Day of Peace Message, “The earth is a common heritage, the fruits of which are for the benefit of all.”⁶ We are one human family and the earth is our home that God has given to men and women to inhabit with “creativity and responsibility,” and to protect with “responsible freedom, with the good of all as a constant guiding criterion.”⁷

Today’s environmental challenges are global in nature and require a coordinated and collaborative response. Climate change is a case in point. As Pope John Paul II said, “we can not interfere in one area of the ecosystem without paying due attention both to the consequences of such interference in other areas and to the well being of future generations.”⁸ Whether it is the air we breathe, the water we drink, the food we eat or the climate we share, *all* of creation shares in the earth’s benefits and detriments. One of the moral challenges facing our society today, is helping people understand the interdependent relationship they have with their environment and with each other and creating a genuine sense of solidarity.⁹

In Catholic teaching, the universal common good is further defined by the duty of solidarity, [“a firm and persevering determination to commit oneself to the common good.” *Sollicitudo Rei Socialis* [SRS].¹⁰ This moral principle challenges

society to look beyond its own self-interest and toward the greater common good. As the U.S. Catholic Bishops remind us, “Solidarity requires sacrifices of our own self-interest for the good of others and of the earth we share.”¹¹ If society is to develop sustainable and just solutions individuals around the world must first realize that their actions and lifestyles impact one another, that we are part of one human family and we share one home, this earth.

Option for the poor

Our Catholic faith calls us to care for all of God’s creation, especially the “least of these” (Mt 25:40). We are our brothers’ and sisters’ keepers. The moral principle of the common good and the duty to live in solidarity with our brothers and sisters requires us to pay close attention to the needs of the poor. The common good and social justice call for all people to have the right to live in a safe environment and for the earth’s resources be shared equitably. The right to a safe environment is one among a set of basic human rights “necessary to live human life and to participate in society.”¹² Some of these other rights include the right to life, to education, to health care, and to work. In 1990 it was Pope John Paul II that stated in his World Day of Peace Message that a “right to a safe environment” should also be added these fundamental human rights.

The Compendium of Social Doctrine of the Church goes on to state that, “the goods of the earth were created by God to be used wisely by all. They must be shared equitably, in accordance with justice and charity.” Since it is often the poor who suffer most directly from the consequences of environmental degradation they are at center of the Catholic Church’s concern for the environment. There are clear links between environmental degradation and poverty. Pope John Paul II concluded that the “proper ecological balance will not be found without directly addressing the structural forms of poverty that exist throughout the world.”¹³ Therefore, sustainable development or responsible stewardship of the earth can not be achieved without a preferential option for the poor.¹⁴

The poor bear disproportionate burdens of environmental degradation. As Pope Benedict XVI states in his Angelus address on Sunday, August 27, 2006, “Environmental pollution is making particularly unsustainable the lives of the poor.” It is often poor children and families, vulnerable workers and subsistence farmers that pay the price of environmental degradation.¹⁵ Whether it is the disproportionate exposure of poor children to environmental toxins and urban pollution, the hardship faced in the aftermath of Hurricane Katrina, or the environmental contamination of water and land that results from mineral and oil extraction in the developing world, it is the often the poor who pay the highest price.

The principles of justice and solidarity indicate that developed countries have a special responsibility to help poor nations address these environmental challenges.¹⁶ This is a matter of justice because poor people in poor nations generally contribute least to environmental problems and therefore should have a different level of responsibility in addressing them. Furthermore, developed nations have a “moral responsibility” to take a leadership role in addressing global environmental challenges.¹⁷

Virtue of Prudence

A distinctively Catholic approach to the environment and to environmental justice calls for Catholics to practice the virtue of prudence. Often, in our society, prudence is thought of as a cautious or safe approach to a situation or dilemma. However, in Catholic theology “prudence is a virtue which encourages the use of reason_in a process of reflection and prayerful discernment.”¹⁸ The virtue of prudence is vital to individual members of society and to those in political office whose decisions impact many others. Prudence is a thoughtful and deliberate process that “[shapes] a community’s conscience” and helps us “discern the common good in a given situation” and “adopt appropriate courses of action for the sake of the common good.” This virtue helps individuals, politicians and others apply intelligence to critical problems and challenges facing society and all of humanity.

In this year's *World Day of Peace Message*, Pope Benedict XVI urged environmental prudence, with the "good of all as a constant guiding criterion" and with a special focus on the poor. He stated: "Prudence does not mean failing to accept responsibilities and postponing decisions; it means being committed to making joint decisions after pondering responsibly the road to be taken, decisions aimed at strengthening that covenant between human beings and the environment, which should mirror the creative love of God.

Often the public debate around environmental issues can be polarized and divisive. There are many competing perspectives and a tendency to focus on narrow interests instead of the common good. Prudence calls for civil dialogue that respects the views of different parties involved.¹⁹ Dialogue allows us to understand each other's different perspectives, how we are connected to each other and to the environment we share. Pope Benedict XVI reminds us that responsible cooperation and dialogue among nations will be necessary to just and sustainable solutions to today's environmental challenges.

A Catholic Perspective: The Moral Dimensions of Global Climate Change

Now that we have reviewed the preceding moral principles that contribute to a truly authentic and distinct Catholic approach to the environment, I would like to examine how these principles shape our/the Church's response to one of the great environmental challenges facing our nation and the world today, climate change. As the Catholic Bishops of the United States insist in their statement *Global Climate Change: A Plea for Dialogue, Prudence and the Common Good* "the debate about how the United States is responding to questions and challenges surrounding global climate change is a test and an opportunity for our nation." "It tests our commitment to the common good, to the poor, to our understanding of stewardship."²⁰

Our response to climate change raises fundamental questions of morality and justice, fairness and shared sacrifice. As Catholics our faith calls us to care for all of God's creation, especially the "least of these" (Mt 25:40). Caring for God's

creation means, not only, saving the animals and trees, but protecting humanity as well.²¹ The Catholic bishops view the issue of climate change as one about “the future of God’s creation and the one human family.”²² Of particular concern to the Church is how climate change and the response to it will affect poor and vulnerable people at home and around the world.²³

People living in poverty in developing countries are expected to suffer most severely from the negative effects of climate change. Increased drought, storm intensity, disease, species extinction and flooding will only exacerbate the living conditions of those already impoverished. As the United States Conference of Catholic Bishops testified before the Senate Environment and Public Works Committee, “The real ‘inconvenient truth’ is that those who contribute least to climate change will be affected the most and have the least capacity to cope or escape. The poor and vulnerable are most likely to pay the price of inaction or unwise actions. We know from our everyday experience their lives, homes, children, and work are most at risk.”²⁴

Science also plays a special role in evaluating environmental issues. In their statement on climate change the Catholic bishops point out, “science is too often used as a weapon, not as a source of wisdom.” Science is meant to inform us and tell us what is happening. “It is science’s role to help us understand the climate and its physical properties and impacts.”²⁵ On the other hand, Catholic teaching and principles provide us with a moral framework to help guide our decisions about how to act and respond.

Although we may not know everything about climate change, we know enough to know that we are doing damage. Significant levels of scientific consensus demonstrate that climate change is real and that the consequences of inaction are serious. Prudence tells us that wise action is needed now to address problems that will only grow in their magnitude and consequences.²⁶ As the bishops state, “Significant levels of scientific consensus – even in a situation with less than full certainty, where the consequences of not acting are serious –

justifies, indeed can obligate, our taking action intended to avert potential dangers.”²⁷ Finally, if humanity is going to rise to the challenge presented by climate change “the public debate must be civil and guided by prudence.”²⁸

Moving from debate to Action

“Catholic Social teaching calls for bold and generous action on behalf of the common good.”²⁹ As Bishop Wenski said to Congressional leaders in a February 7, 2007 letter, we must commit ourselves to “help build up common ground for common action to advance the common good.” There are many ways in which the Catholic community has become and is becoming increasingly engaged in this important issue. Below are just a few examples:

The USCCB along with its interfaith and Catholic partners, including the National Religious Partnership for the Environment (NRPE) and the Catholic Coalition on Climate Change (CCCC), are working to ensure that U.S. legislation to address climate change will include protections for poor and vulnerable people at home and around the world. This means setting aside funding that will help “the most vulnerable among us” adapt to and mitigate the impacts of climate change.

The Catholic Coalition on Climate Change is a coalition of Catholic organizations that seek to bring a Catholic moral voice to the debate about climate change. The Coalition encourages a more thoughtful and sustained dialogue about possible ways in which the Catholic community can respond to this challenge. In 2007 with support from the Catholic Coalition on Climate Change and funding by the USCCB’s Environmental Justice Program three remarkable climate change hearings were held in Florida, Ohio and Alaska. The purpose of the hearings was to listen to facilitate dialogue among representatives from business, environmental groups, and state and local public officials.

At the hearing in Anchorage, compelling testimonies were heard from Native Alaskans about some of the changes they’ve seen in recent years, which can be attributed to climate change:

rising tide levels necessitating the relocation of whole villages, thawing permafrost, and changing migration patterns of local wildlife-impacting the food supply for those dependent on local fish and game.³⁰

Catholic colleges and universities are also taking positive steps to green their campuses, offices and organizations. Twenty four Catholic colleges and universities have become members of the Association for the Advancement of Sustainability in Higher Education, an organization that provides its members with research materials and techniques for how to green their campuses. Among the association's members, are the University of Notre Dame which opened an Office of Sustainability in 2008 dedicated to making the school's power plant, dining services, transportation, buildings and information technology more environmentally friendly.³¹ Santa Clara University has integrated ecological education into its curriculum and the University of St. Francis sponsors an annual "Green Week" of educational events to promote environmental awareness, especially around climate change.

Conclusion

Catholic teaching brings a moral voice to environmental issues and to the debate about climate change. It attempts to lift up the voice of the most vulnerable among us, especially the poor, who will suffer the worst consequences of environmental blight and degradation. This moral framework reminds us that we are all part of one human family and that for the sake of the common good and future generations we must address these challenges together and with prudence. As the Bishops Statement in 2001 aptly concluded, "In that spirit of praise and thanksgiving to God for the wonders of creation, we Catholic Bishops call for a civil dialogue and prudent and constructive action to protect God's precious gift of the earth's atmosphere with a sense of genuine solidarity and justice for all God's children."

¹ Walter Grazer, (2007, February) “Called to Faithful Stewards of God’s Creation Catholic Social Teaching and the Environment: A Pastoral Response.” Speech presented at University of Notre Dame, 3.

² Ibid..

³ Ibid, 4.

⁴ Grazer, (2008, April), “Global Climate Change: In Light of Catholic Social Teaching.” Speech presented in St. Petersburg, Florida, 5.

⁵ Grazer, (2007, February), 4.

⁶ *The Ecological Crisis: A Common Responsibility; Peace with God the Creator, Peace with All Creation.* Message of Pope John Paul II for the Celebration of World Day of Peace, January 1, 1990.

⁷ *The Human Family, A Community of Peace,* Message of Pope Benedict XVI for the Celebration of World Day of Peace, January 1, 2008.

⁸ *Ecological Crisis*, no. 6.

⁹ Grazer, (2008, April). 7.

¹⁰ *Sollicitudo Rei Socialis* [SRS], 38.

¹¹ *Renewing the Earth*, 7.

¹² Grazer,. (2008, April). 8

¹³ *Ecological Crisis*, 11.

¹⁴ Grazer, (2008, April), 9.

¹⁵ Grazer,. (2007, February), 6.

¹⁶ Grazer,. (2007, February), 6.

¹⁷ Grazer, (2008, April), 9.

¹⁸ Grazer, (2008, April), 10.

¹⁹ Grazer, (2007, February), 7.

²⁰ Grazer, (2008, April), 12.

²¹ Cecilia Calvo, *The Missing Voice of the Poor in the Climate Debate*. www.faithfulcitizenship.org/media/article/calvo. (accessed November 10, 2008).

²² *Global Climate Change: A Plea for Dialogue, Prudence and the Common Good*.

²³ Calvo, *The Missing Voice*.

²⁴ Calvo, *The Missing Voice*.

²⁵ Grazer, (2008, April), 12.

²⁶ Calvo, *The Missing Voice*.

²⁷ Bishops' statement, 2001.

²⁸ Grazer, Walter (2008, April), 12.

²⁹ Bishops' statement, 2001.

³⁰ Catholic Coalition on Climate Change.

³¹ Mandi Stone, "Catholic colleges, universities take steps to go green." *Catholic News Service*. August 4, 2008.



Creation Care and Evangelical Churches

Rusty Pritchard
Evangelical Environmental Network

Evangelicals are today the subject of rampant speculation, often centered on politics and on the potential of a “new generation of evangelicals” to serve one agenda or another. Scarcely a week goes by without a news article detailing new evidence of a seismic shift, or at least a contentious divide, among evangelicals. Scarcely a month goes by without an additional progressive political organization adding a faith outreach component to their existing programs in an attempt to harvest new evangelical swing voters.

Those efforts often radically overestimate the degree of politicization of evangelical identities. What progressives imagine about evangelical life is invariably much more political than the reality, where most ministers, believe it or not, assiduously avoid politics from the pulpit, and where corporate life is focused on worship, family, and discipleship, and where, sadly, AM radio is more of a cultural influence than Scripture or preaching.

Environmental engagement, or creation care, is one of those arenas in which even a new generation of evangelicals are skeptical of the politicization they see in the culture around them, and they fundamentally more skeptical about issues from the left than from the right. Why have evangelicals resisted environmental engagements in the past? Modern, secular environmentalism is frequently perceived to spring from a worldview at odds with a culture of life. It is perceived as misanthropic, self-righteous, and legalistic.

That is a problem for environmentalism and has limited its uptake with large portions of the general public. But it's a particular problem for evangelicals. After all, if people want self-righteousness and legalism, they should come to the experts, not to environmentalists. It is paradoxical that a religious movement so steeped in a theology that emphasizes fallen human nature should be surprised when that diagnosis extends to impacts on the natural world. When evangelicals feign shock that a movement like environmentalism should critique consumerism, materialism, and unmitigated individualism, they simply aren't being true to orthodox Christian theology.

There are problems with consistency, with the rigorous application of the ethical conclusions of scripture, but for many evangelicals there is a more fundamental problem: if ethics have anything to do with how to behave in the real world, then what is believed about the real world is as deeply constitutive of action as the ethical system is. On an issue I'll refer to occasionally, climate change, evangelicals aren't missing ethical content; we're missing a good relationship with science. Our theology of how to learn from the book of nature is poorly-developed, and that accounts for much of why evangelicals have a poorly-developed environmental ethic.

There are two underlying, fundamental reasons that evangelicals have had a special problem with the issue of climate change. First, it is impossible for a scientific layperson, or indeed even a scientist not fully engaged in climate research, to fully understand the evidence for the human contribution to global warming. For the rest of us, the difficulty of assessing the evidence is overwhelming, and we are left with questions of trust. On issues of science, evangelicals do not have an abundance of trust to lean on.

The other reason for mistrust of climate science is irrational but must be acknowledged: political and social conservatives are rightly concerned with the size and power of centralized governments (although that concern is not limited to conservatives). That reasonable concern has escalated into an outsized paramount position in the last 30 years that far exceeds its theological justification. Here's the irrationality: working

backwards from what seem to be the inevitable policy conclusions of the climate debate—that government control of the economy should be vastly expanded—evangelicals have often chosen to reduce cognitive dissonance by doubting the underlying science.

On Science and Evangelicals

Evangelical churches have suffered from a double-edged cultural marginalization. On the one hand, remnant sentiments of fundamentalism have shaped evangelical institutions far more than most evangelical Christians realize, engendering a shallow theology of human culture that causes many to dismiss, to attack, or, paradoxically, to mimic modern, secular cultural forms. Science, as one of those cultural constructions, is little trusted and hardly appreciated by many evangelicals. On the other hand, popular expressions of antipathy to religion by celebrity scientists reinforce the evangelical tendency to disengage or to create its own popular, inferior, insulated, and truncated versions of science (think of evangelical antipathies to scientific theories of origins or to scientific explanations of anthropogenic climate change).

Hidden in the popular versions of the science/religion conflicts are examples of serious scientific research conducted by evangelicals and other serious religionists. The faith of individual scientists and scholars is easy to overlook in the cartoonish popular descriptions of the conflict, just as it is easy to forget the respect accorded to science and scholarship in past generations of evangelicals. As Mark Noll has pointed out, significant voices in historical evangelicalism in the nineteenth century such as B.B. Warfield and Charles Hodge “succeeded in promoting both an earnest people’s piety and serious intellectual labor.” Hearing the stories of authentic faith by living scientists would open the door to engagement for evangelicals, and would provide a platform for addressing some of the big questions in science and religion that otherwise are ignored.

Trying to introduce the findings of science deemed relevant to religionists by those in science without establishing a point of trust, identity, and theological common ground will suffer from the “messenger problem.” E.O. Wilson’s invitation to

Baptist pastors notwithstanding¹, it is unlikely that many evangelicals will enthusiastically respond to offers of cooperation and co-belligerence from scientists whose published work portrays an attitude of antipathy and condescension.² Such cooperation, when it occurs, is likely ephemeral, limited in scope and participation, and destructive if it is revealed to be disingenuous or interested.

Evangelicals, and especially younger evangelicals, while increasingly eager for cultural engagement, are ever more suspicious of being manipulated for political ends. The emphasis on honest friendship and relationship may, however, prove more enduring and constructive, and there are several projects moving forward with those less instrumental goals.

Scientific, philosophical, and theological scholarship conducted by evangelicals themselves is frequently skipped over in the desire to “connect evangelicals to science”. Scientists and scholars who are themselves evangelicals, or who understand and sympathize with evangelical values and priorities, are likely the best ambassadors to demonstrate the relevance and relatedness of scientific enquiry to ministry. Pastors and church leaders already worship with scientists and academicians in their congregations, but may rarely preach or even converse about scientific topics because they feel intimidated or estranged. Seeing the public testimonies of creative minds in the area of science and religion could help build bridges by demonstrating that evangelical scholarship is not divorced from evangelical community life and values. Irrational as it may be, finding out that the head of the Human Genome Project, Francis Collins, plays bass in his church’s worship band does more for his credibility among evangelicals than a string of academic degrees.

Christian churches are the intellectual cradle for formation of a worldview that encompasses the ability to learn from the book of special revelation and from the book of nature. Evangelicals have for too long been content to be specialists in reading Scripture but are far behind their brothers and sisters who are mainline Protestants and Catholics in the ability to read from and to trust what they read in the book of nature. The environmental arena demonstrates that gap very clearly.

Evangelicals have a lot to learn about intellectual life from faithful mainline Christians, from the rich tradition of Catholic social teaching and others.

Augustine said that a proper reading of Scripture must be motivated by love—of God and of neighbor—and the same must be true of the reading of the book of creation. Pure scientific curiosity can be justified by a love of God, but for most evangelicals science will find additional validity if it science is motivated by love of neighbor, and if it finds practical application in ministries of compassion, justice, and evangelism. For example, a key impulse for evangelicals to trust good environmental science on climate comes from attention to impacts on availability of clean water, rainfall for rain-fed agriculture, the spread of disease, and the increasing impacts of natural disasters.

The evangelical movement has been characterized by historian David Bebbington as activist, among other distinctives.³ Action, and not research or reflection, is what Mark Noll calls “the glory of the evangelical enterprise.”⁴ Among younger evangelicals, however, one can discern a hunger for reflection, however, and the right environment for reflection can lead to innovative, creative, and transformative responses. The suspicion of formal academic life that characterized fundamentalists still afflicts many evangelical institutions, and the tendency to retreat into a comfortable populism that engages culture on a superficial level is still present. Evangelicals have a reputation, largely deserved, for work that is often derivative when not reactionary. There are projects afoot, however, like the Fermi Project⁵, which are working to push evangelical cultural engagement to a new and more thoughtful level. Cultivating respect, engagement, and participation for a variety of cultural forms is central to the identity of new evangelicals, and science is part of that culture.

Let me give an example of the older, opposite perspective that new evangelicals sometimes encounter. This is an example I first encountered while engaged in a live, on-air radio debate with a prominent climate skeptic. My colleague used Psalm 104:9 to argue that sea level rise from global

warming can never be a problem. In passage, the psalmist, writing about the power of God says: “You set a boundary [the seas] cannot cross; never again will they cover the earth.” Also, from Job 38:8-11” ‘...[it is I, God] who enclosed the sea with doors when, bursting forth, it went out from the womb; when I made a cloud its garment and thick darkness its swaddling band, and I placed boundaries on it and set a bolt and doors, and I said, Thus far you shall come, but no farther; and here shall your proud waves stop.”

The conservative author goes on to say that while our reading of these passages does not “justify utter disregard of scientific debates about sea level, it does predispose us to believe that sea level rise is likely to be small and insignificant.” Of course, no scientist predicts that sea-level rise will flood the entire earth to the tops of the highest mountains. But some Christians, like my colleague, have used the doomsday rhetoric of environmentalists to call into question the basic science on global warming impacts.

The author further justifies his proof-texting: “I am not suggesting that everyone should accept my interpretation and application of these passages. There is room for hermeneutical disagreement. ... Those [Christians] who, in considering these issues, ignore these passages deprive themselves of the input of the inspired Word of God when they ought instead to study it and believe it.” The bumper sticker version is “God said, I believe it, that settles it.”

A complementary way of viewing this, for evangelicals, is to show that inattention to science and its findings, central as they are to other cultural forms, harms the witness of the church and casts it as irrelevant and out-of-touch. Similarly, evangelicals need to understand much more clearly the reticence of scientifically-minded secularists to accept religion as a valid way of understanding reality. The recent spate of books attacking Christianity⁶ has contributed to a new awareness of the need to understand and respond to natural science and its critiques of religion, both reasonable and unreasonable.

Finally, I will comment on one of the main expressions of hope that begins to reposition evangelicals into a good-hearted engagement with culture, including the culture of science, and into an engagement with politics that revolves around seeking the common good rather than perpetuating the culture wars. The Evangelical Climate Initiative is one example of an enterprise that attempts to engage evangelicals on climate science by tackling the “messenger problem” head on.

The Evangelical Climate Initiative

No one expected radicalism from the group of 86 senior evangelical leaders who signed the Evangelical Climate Initiative’s “Call to Action” in February 2006, but the understanding of political and religious alignments on climate change shifted that day because so many prominent evangelical leaders suggested they would take credible science seriously. The evangelical Call to Action has now been signed by over 200 senior leaders, and it includes four contentions that may seem commonplace but were new to the broad evangelical community: Human-induced climate change is real; The consequences will be significant and will hit the poor the hardest; Christian moral convictions demand our response; The need to act now is urgent; Governments, businesses, churches, and individuals all have a role to play.

The common-sense approach exhibited by the statement, matched with a sense of Biblical compassion and justice, led to commitments to campaign for change. What distinguished this group from the critics who reacted against them was not their commitment to compassion, but their willingness to admit the plausibility of the science on global warming. The view is shared by most evangelicals: seventy percent of self-described evangelicals and born-again Christians in a recent Ellison Research poll believe that human-induced global warming will cause harm to future generations; and most believe that action to curb it should be taken now. In fact: 84% favor federal legislation to curb global warming; 64% want action to start now; 54% say they are more likely to vote for a candidate working to curb global warming; 89% want U.S. to act whether or not nations such as China and India act. Anecdotal evidence suggests that belief is leading to action. Joel Hunter’s Orlando

megachurch, Northland, has a website to reach out to other churches, and collects and sorts recycling at the church plant. The church has set up a task force to explore how it can reduce the carbon footprint of its new 3,300-seat sanctuary. Its stated goal is to share its findings with churches across the country. Even in very conservative churches such as the 20,000 member McLean Bible Church in nation's capital there is a weekly Bible study group called Creation Stewards that is promoted on the church's Website.

Prestonwood Baptist Church, a 26,000 member Southern Baptist church in Plano Texas, won an Energy Star award for energy efficiency from the EPA, but their real reward was the \$1.1 million they saved in utility costs over a year. This was significant enough to be noted by conservative Christian commentator Chuck Colson, in a recent column where he for the first time unambiguously endorsed the validity of caring for creation.

Several months ago, a significant group of Southern Baptists leaders, including the current SBC president and other past presidents, led by a 24-year old seminar student named Jonathan Merritt, left the convention's Washington-insider lobbyists in shock, as they declared their biblical concern for creation and their willingness to look again at solutions to global warming. They didn't say that they believed global warming science was a slam dunk, but they did say that prudence required them to take what looks like a growing consensus seriously, and that to do otherwise would appear to be "reckless and uncaring."⁷

Cultivating a Common Good Dialogue

Evangelicals as a group are arriving late at the party on creation care issues, and on global warming action in particular. They need to cooperate with folks who are already working, and have been for a long time. No one can pretend that evangelicals deserve credit for historical leadership on this issue. In my own organization we spend some of our time helping churches and evangelical Christians understand the value of partnerships with those outside the movement, and indeed we work to build a theology of the common good that has been largely missing from

evangelical teaching. Evangelicals have proven, on other issues, like international debt relief, sex trafficking issues, the abolition of torture, the genocide in Sudan, that we are capable of working with non-evangelicals. On creation care, and on climate change, these partnerships will need to sometimes include environmentalists, activists, and faithful citizens from mainline Protestant, Catholic, Jewish and other religious communities. And finding common ground on common-good issues will also provide opening to share what we believe are the claims of the Creator, who in Jesus Christ reconciled to himself “all things, whether things on earth or things in heaven, by making peace through his blood, shed on the cross.”⁸

Evangelicals have not always been mature or well-behaved in the way they’ve entered into the public square and into political discourse. I think that is changing, and that the change will be good for the evangelical movement, good for the communities they serve, and good for the planet.

¹ E.O. Wilson, *The Creation: An Appeal to Save Life on Earth* (New York, W.W. Norton, 2007).

² Andy Crouch, September 25, 2006, “Letter to a Tenured Professor”, *Books and Culture* Corner, accessed at <http://www.christianitytoday.com/books/features/bccorner/060925.html>.

³ David Bebbington, *Evangelicalism in Modern Britain: A History from the 1730s to the 1980s* (London, Unwin Hyman, 1989).

⁴ Mark A. Noll, *The Scandal of the Evangelical Mind* (Grand Rapids, Eerdmans, 1995), 243.

⁵ See fermiproject.org.

⁶ Well known examples include Richard Dawkins, *The God Delusion* (Houghton Mifflin, 2006); Sam Harris, *Letter to a Christian Nation*, (Knopf, 2006); Daniel C. Dennett, *Breaking the Spell: Religion as a Natural Phenomenon*, (Viking, 2006); Christopher Hitchens, *God is Not Great: How Religion Poisons Everything*, (Twelve Books, Hachette Book Group, 2007).

⁷ www.baptistcreationcare.org.

⁸ Colossians 1:20, New International Version.



Response to Cecilia Calvo and Rusty Pritchard

**Margaret Parks Cowan
Maryville College**

Let me first thank both Cecilia Calvo and Rusty Pritchard for their presentations and willingness to represent environmental perspectives from two branches within the Christian tradition. I want to highlight some ideas from each of them, draw some comparisons – both similarities and differences, and offer some thoughts on contemporary theological approaches that might contribute positively to the conversation.

In her discussion of Catholic social teaching and environmental justice, Calvo roots “respect for the natural order and integrity of creation” in acknowledgement of God as creator and an appreciation for the goodness of all of God’s creation. Thus, “care for creation is a sign of respect for God the creator and an essential part of [Catholic] faith.” Furthermore, she quotes the conviction from the document *Renewing the Earth* that “Safeguarding creation requires us to live responsibly in it, rather than manage creation as though we are outside of it.” She calls for sense of solidarity with all creatures and recognition of interdependence. In these statements we find the attribution of intrinsic value to creation that some symposium participants were looking for in the discussions Friday afternoon.

She goes on to speak of the “unique role” of humans in relation to creation, and in her discussions of concern for the ‘common good as a fundamental value,’ she uses the metaphor of a human family that has one home, i.e. earth. In both cases,

her language implies something other than interdependence and leaves open the possibility of taking an instrumental view of creation, i.e. one that values it primarily in terms of its usefulness, value to humans. Closely related to ideas about the relationship between humans and the environment is the Catholic social teaching that highlights a preferential option for poor. One of the strengths of the Catholic position outlined by Calvo is its commitment to viewing the opportunity to live in safe environment and share the benefits of nature's resources equitably as a basic human right.

A second strength is the emphasis on the virtue of prudence. As an academic, I strongly affirm the need to apply reason, reflection, intelligence, critical analysis and discernment to such problems. Also, the claim that prudence calls for civil dialogue that respects the views of different parties seems particularly apt in the current political environment of name-calling, distortion, and rejection of thoughtful engagement on issues of import. However, it seems to me that it is the parties who hold different views, not those views themselves, who ought to have our respect and whom we should seek to engage. Views that do not consider the scientific evidence for global warming or that reject any responsibility for acting morally in response to the problems ought to be challenged. Engaging people and seeking to understand them does not mean validating their ideas or positions. Calvo speaks specifically to the importance of science in her discussion of *The Moral Dimensions of Climate Change*. It seems to me that another of the advantages of the Catholic tradition is its recognition of the natural world as a source of revelation, in contrast to the insistence of many in Protestant traditions on relying solely on scripture.

While Catholicism has a rich heritage in its strong intellectual tradition, Rusty Pritchard points out that Evangelicalism suffers from mistrust of the 'intellectual elite' and, hence, rejection of many of its conclusions. Coupled with mistrust of government as a tool for achieving social and economic goals, this anti-intellectualism has meant mistrust of scientific studies and conclusions and attempts to use them as a basis for public policy. I appreciate Rusty's efforts to explain

reasons for this characteristic of Evangelicalism and to articulate ways to bridge the gaps between evangelicals and environmentalists who do not share their worldview.

That “for most evangelicals science will find additional validity if is motivated by love of neighbor” in addition to love of God reflects a more instrumental view of the environment than the one reflected in the Catholic position. This assessment is confirmed by the Evangelical Climate Initiative, which focuses on the consequences of climate change and their disproportionate impact on the poor, and Rusty’s discussion of the language others might use when trying to connect with evangelicals about global warming. He speaks of good climate policy as being good for families, good for the security of the U.S., good for business, and good for the least. Later in the paper he refers to “the environmental systems we depend on.” It seems to me that a worldview that attributes intrinsic value to the world offers a more powerful environmental ethic than one that sees its value primarily in its usefulness to humans, particularly if the instrumentalist approach is coupled with a belief that the earth is only a ‘temporary’ home and the ultimate ‘home’ lies elsewhere, i.e. in heaven. The evangelical emphasis on ‘love of neighbor’ and recognizing the disproportionate impact of the downsides of climate change on the least is substantially the same as the Catholic recognition of a preferential option for the poor. Both use the biblical language of justice and focus on economic, physical, and social well-being. Not only does the justice concern bind these two traditions together, but it also provides a strategy for connecting evangelicals with other environmentalists who share a concern for the poor.

Another strategy for building bridges between evangelicals and other environmentalists that Pritchard suggests is “recognizing the church as an instrument of hope.” Here, he cites the failure of the federal government to respond to such disasters as Katrina and suggests that the “faith community responded with a depth and breadth that couldn’t be matched by the government.” While I affirm the importance of faith communities and volunteers in providing counseling, a human face, and spiritual support for people in times of crisis, the disastrous failure of FEMA in the case of Katrina resulted from a

number of factors including the willful neglect of an administration that wants to privatize such efforts, not an inherent inability of public institutions to respond to disasters. It seems to me that it is a valid function of government to meet the needs of people impacted by disasters and that only government can marshal the resources of all of the community without placing an undue burden on those ‘willing’ to help. Grassroots efforts to organize community life for both prevention of climate change and response to disastrous events that result from climate change are important, but not sufficient. Even decentralized efforts are more likely to be inclusive of a full range of members of the community if they are organized by civil, not religious institutions. The kind of initiatives Rusty describes in his section on “love thy neighbor” illustrate my point. Building an urban infrastructure that makes cities more livable, healthy, green, and friendly to the poor is precisely the kind of thing that governments are well-positioned to do.

In his list of traditional Christian virtues upon which the evangelical community might draw, Rusty includes two that Cecilia also emphasized: Justice, which for the Catholic tradition focuses on the preferential option for the poor and which I discussed above, and wisdom or prudence. The greatest difference that I can see between evangelical positions on the latter and the Catholic position goes back to the evangelical skepticism toward the intellectual. The mistrust of reason, science, and expertise has been a major obstacle to engaging climate change in a timely manner. Sadly, religious traditions that rely exclusively or even primarily on such authorities as scripture and doctrine as sources of knowledge of all kinds have infused an attitude of anti-intellectualism and rejection of reason into our culture.

One example of this kind of misuse of biblical texts that Pritchard shared is E. Calvin Beisner’s use Psalm 104.9: “you set a boundary that they [the waters of the sea] may not pass, so that they might not again cover the earth” to reject the claim that a rise in sea level is a problem likely to result from global warming. A similar text is Job 38.11 where God is the one who “placed boundaries for it [the sea] and set bars and doors, and said, ‘Thus far shall you come, and no farther, and here shall

your proud waves be stopped.” To suggest, as Beisner does, that such texts provide “data that ought to be considered in evaluating scientific evidence” about rising sea levels is to yank them out of their historical, cosmological and mythological contexts in ways that render them absurd. One also wonders how Haitians whose villages were repeatedly flooded by the parade of hurricanes that brought chaos to their island this summer and residents of Galveston whose town was inundated by Hurricane Ike would respond to the suggestion that God set boundaries that the seas could not cross.

Rusty describes a number of points on which many evangelicals are becoming more receptive to scientific information and notes that being literate in science is seen by some as a tool for giving evangelicals greater respectability. These are hopeful signs that – for at least some evangelicals – reasoned consideration of evidence is growing in importance in taking positions on environmental issues.

As this willingness to engage evidence increases, Rusty identifies what he calls a “fundamental irony: At about the time that the first empirical evidence is accumulating to support the Christian doctrine of dominion – that God has granted to the human race a delegated but effective authority over the planet – as evidenced by our impact on not just local but global environments, you see Christians shrinking back from the doctrine.” This statement suggests an understanding of dominion that emphasizes control, even mastery, over the planet. While that has been a common understanding, the biblical descriptions of the appropriate role of a king, i.e. one who has dominion, is one whose ‘authority’ is exercised for the benefit of the marginalized, the weak, the poor. Thus, I would suggest that a more fruitful understanding of the kind of dominion intended by these texts is empowerment specifically for the benefit of the least, not mastery for good or ill.

Another theological concept that I think could bear examination is eschatology. This notion of ‘end times’ is problematic when it assumes an inevitable “end” of the world whether caused by humans or by God. When examined carefully, biblical “end times” use language of myths of creation

and ‘uncreation’ to describe a period of chaos that is followed by transformation. However, those images are not of a final destruction of the earth but a reversal of the structures of power on the earth. Expectations that there will be a final destruction of the earth have the potential to undermine any attempts to save that earth from environmental devastation.

I am also uncomfortable with a view of God whose “hand of restraint” prevented Americans from degrading our environment even more than we have and will allow us to solve global warming. One wonders why such an interventionist God would allow any the devastating environmental events to occur. Victims of famine in Africa or the tsunami in South Asia a few years ago can hardly be appreciative of a God who might save Americans from environmental destruction but did not stop those events. Such prophetic voices as Jeremiah did not suggest that God would intervene if people continued their destructive habits. Ancient Judah was to learn from the example of the destruction of ancient Israel, and to fail to do so was to insure the devastation of Jerusalem itself. In other words, a voice like Jeremiah’s claims that humans are responsible and cannot depend on God to rescue us from our own insanity.

I have thus far tried to identify what I see as some strengths and some weaknesses within the positions outlined by Cecilia Calvo and Rusty Pritchard. While I resonate with an environmental ethic that values social and economic justice, whether relying on the language of a preferential option for the poor or love thy neighbors, I think that an environmental moral imperative can go beyond that. As some symposium participants suggested on Friday, an environmental ethic that attributes intrinsic value to nature is richer or more inspiring than one based on its instrumental value alone. Others suggested that it would help to understand that humans are part of the environment, rather than apart from it. I would like to go a step further and suggest that we need some new theological models to help with our moral reflections.

Classical theological models have not only viewed humans as having a special role and, therefore, being somewhat separated from nature, but they have also posited a great gulf

between God and the world. A transcendent God created the world, occasionally intervenes when things get too far out of kilter, and will bring creation to an end at some point in the future. However, a biblical view of creation sees it not as a past event, but as an ongoing reality. Most Hebrew scholars translate the first verse of Genesis 1, "When God began to create . . ." A number of texts in the Psalms and Prophets speak of divine creation in the present tense or, more accurately, as uncompleted action. Creation is a process, a process that is ongoing and incomplete.

Let me suggest two contemporary theological models are both consistent with this view of God as a creator who is involved in an ongoing creative process and that might offer constructive ways forward in thinking about an environmental ethic. First, is the metaphorical theology developed by Sally McFague in her books *The Body of God*, *Metaphorical Theology* and *Models of God*. McFague begins with the assertions that theology must be relevant to contemporary issues and that theological language is always metaphorical. Metaphors that have staying power are models. The reign of God is the root or fundamental metaphor of Christianity, while Jesus is the exemplar of the kingdom and a parable of God. In this parable, God is incarnated in the marginalized and oppressed segment of the world that first century Palestine under the exploitative rule of the Roman Empire represented. Given the degradation of the environment, McFague suggests that a valid and valuable rethinking of this parable of incarnation in an ecological nuclear age is to conceptualize the oppressed earth as the incarnation or body of God. Incarnation is not so much a one-time event as a model for understanding the relationship of the divine to the world. Whether one finds the particular model of the earth as God's body helpful, the centrality of incarnation to Christianity suggests that God is not separate from, but embodied in the world. Hence, that world has intrinsic value.

Another contemporary theological approach is that of process theology. Consistent with the biblical view of creation as ongoing, becoming is central to process theology. This theological perspective sees the world or environment or cosmos as part of the divine life and thus rejects the dichotomy between

humans and nature and between the world and God. Thus, the environment has intrinsic, not just instrumental value. What happens to the world affects God. God suffers as the earth suffers. Because God is affected by it, our stewardship of the environment has ultimate significance. What we do in this world is not our ticket to the 'other' world of heaven, because it is within this world that God is involved and engaged with humans. God's power is best understood as empowerment, not power over, as God seeks to lure humankind and all of creation toward the good. God is always actively involved, but does not intervene at some points and not others. Thus, process theology offers an approach that enriches an environmental ethic by attributing intrinsic value to nature, viewing the world holistically – including humans in the natural world, and giving ultimate significance to our actions because they affect the divine.

In Job 38.25-27 God asks from the whirlwind, "Who has cut a channel for the torrents of rain, and a way for the thunderbolt, to bring rain on a land where no one lives, on the desert, which is empty of human life, to satisfy the waste and desolate land, and to make the ground put forth grass?" While the purpose of this rhetorical question is to confront Job with the magnificence of a Creator who does not conform to human expectations, it also reveals a conviction that God values the creation in itself, not just for its usefulness to humans. Combined with theological models that focus on creation as the locus of divine incarnation and as an ongoing process that is part of the divine life, this biblical recognition of the intrinsic value of the environment offers a powerful theological framework for an environmental ethic.



The Greening of Warren Wilson College: The Little College That Could

**John P. Casey
Warren Wilson College**

I thank the organizers of this symposium for inviting me to speak and especially for the giving me the occasion to review the greening of Warren Wilson College. I am very pleased to have the occasion to share with you some of what I have learned in the hope I may be of some value to the greening efforts at your own institutions.

I came to Warren Wilson in 1991 having taught Philosophy at several other colleges and universities and having managed my own environmentally friendly woodworking business. I'm a 1960s antiwar activist turned environmentalist and a practical philosopher most interested in exploring ideas that can guide our actions, especially as members of the biotic community. I've put most of my energy into the classroom and college planning. That is my version of thinking globally and acting locally. Most of the "greening" of Warren Wilson College has occurred since 1991. I chaired the Business Affairs Committee from 1991 until 2005, when I was appointed Interim Vice President for Academic Affairs and Dean of the College. In our governance system, the Business Affairs Committee is responsible for oversight of buildings and grounds projects and as chair I also served on nearly every taskforce and committee involved in developing strategic plans and environmental and sustainability policies and commitments for the College.

In inviting me to this symposium, Ronald Wells asked that I talk not only about our best practices but also about "what

you all at Warren Wilson were thinking and doing in making the campus green.” I’ve been able to review most of the position papers, and draft policies I wrote during the last 16 years, so I do have some idea of what I was thinking, but in hindsight I’m sure that I did not have a clear idea of what others were thinking at the time. I have also reviewed my archive of relevant documents and minutes of meetings and as a result I am also fairly sure that there really was no cohesive institutional or collective “thinking” – no recognized set of collective values or articulated world-view – that consciously guided our decisions. What most of us had in common was a commitment to the welfare of the natural world, but in so far as individual commitment was based on a theory at all, we were thinking in several different ways about the proper relationship between humans and nature. Periodically a small committee, usually heavily influenced by a single individual, would try to put their thinking into the words of a mission statement, commitment statement, list of goals, or a description of the basis for an action plan. Then most of the rest of the community would approve their statement with the understanding that the approval was “in principle” and that we would work on a common understanding of the meaning of the words later. In hindsight it is also clear that most of our commitment statements, goals, and plans were approved without a very clear idea of the efforts it would take to fulfill them. We moved forward not on theory but on a shared confidence that we could somehow turn a deeper shade of green. That is why I have subtitled this paper “The Little College That Could.”

Stewardship

The greening of Warren Wilson occurred across three overlapping periods, beginning with stewardship, then environmental management, and now sustainability. In 1894 the Asheville Farm School was founded by the women’s home missions board of the Presbyterian Church (USA) in order to provide poor mountain boys with an education gained through productive work and classroom study. The initial commitment to community and social responsibility and to work as a way to understand and fulfill those commitments remained at the center of the institutional mission as it added a high school, became a junior college, and in 1967 became a four-year liberal arts

college with work on campus and service to the surrounding community as graduation requirements.

The Asheville Farm School boys met most of their needs in ways that might be described as “sustainable” practices today. The boys were expected to work on the farm or in the garden providing what we call “local food” preserved on site, in the forest providing “renewable energy” firewood and “green building materials” for the boys who built the dwellings, or worked in the shops that repaired everything that could be reused. The Asheville Farm School boys constructed a dam on Bull Creek that drove a generator providing electricity for the campus. Since the flow of water in the creek was marginal, electricity was supplied for only a couple of hours in the morning and a couple of hours in the early evening. Providing sufficient water for drinking and washing was a periodic problem as the school grew. Classes were suspended in order to provide the labor to construct a reservoir and then a pipeline. The rural setting of the school made transportation to Asheville a challenge and students were hauled to events in wagons and provided their own on-campus entertainment, sometimes by having a party in a hidden cow pasture known as a “brown shoe.” Providing for your own needs locally and conserving what you have are deeply rooted in the ways members of the Warren Wilson community address their needs and this has had a very positive effect on recent efforts to provide a larger portion of cafeteria food from the garden and farm; to depend on lumber grown, cut, and dried on campus; to conserve energy used for lighting and to find new sustainable ways of heating and cooling buildings; to provide bus service to Asheville; and to find ways to recycle nearly everything. The heritage of the garden, farm, forest, student work crews, and self-reliance are an important part of what has allowed Warren Wilson College to move to most of its current sustainable practices.

From the founding of the Farm School in 1894 until the environmental concerns signaled by the first Earth Day in 1970, Warren Wilson College and its predecessor institutions have had a strong commitment to stewardship of natural resources. However, I have not been able to find written evidence of the commitment. A review of the catalogs and other publications

available for the period through 1974 yielded no mention of stewardship and little in the descriptions of the institution and its programs that might be thought to indicate a special interest in stewardship of natural resources. However, the actual practices of the institution during the period do demonstrate a commitment to what was thought to be good stewardship in the day. Farm manager Ernst Laursen and his father Bernard before him, took pride in providing an opportunity to test the latest farm practices, a system of trails through the forest was developed because appreciation for its beauty was thought to be among its highest values, a very strong sense of place can be felt in descriptions of the campus and Swannanoa valley, and the institution never ceased to carefully manage its resources.

Environmental Management

Training in “modern” agricultural methods using the farm, forest and garden was central to the Farm School curriculum. As science courses were added to the curriculum, an emphasis was placed on field biology using the natural attributes of the campus. This heritage was in place when energy shortages in the 1970s increased public interest in conservation and in the emerging recognition of environmental degradation. Members of the Biology faculty pushed for practical conservation efforts on campus and developed courses on the conservation of natural resources. In 1977, Tom McKinney proposed an “environmental studies” program for the College and taught some of the first courses in the program. By the late 1980s Environmental Studies had become the largest major at the college and it remains so today.

The Forest Management Plan, written in 1980 by Alan Haney and the students in one of his classes, was probably the first written environmental policy and the first written environmental commitment statement in Warren Wilson history.¹ The plan required that the use of forestland must have as its highest priority the “protection of the forest resources and enhancement of these resources.”² The next highest priority was “the use of the forest resources for purposes of education,” then “maintenance of the aesthetic environment, “ and, in the position of least importance, “optimization of wood yields for lumber, posts, and firewood.” Evidence of these priorities and mostly in

this order can be found in the way the forest was managed prior to this time, but they were not articulated and the management practices seem to have been guided by the personal commitment of individual foresters to the well being of the forest.

While there is evidence that Warren Wilson had a recycling crew in 1981, recycling became a major greening initiative in 1982. In 1986 the Solid Waste Management Plan became the second environmental management plan approved through the college shared governance system. The program was expanded further in 1987 through the efforts of the students in an Environmental Policy course taught by Laura Temple Haney. The crew recycled paper, glass, plastic, and metals for the Warren Wilson community, whose residents were consistent recyclers then as they are now. A couple of years later the crew joined Buncombe County in developing Swannanoa Valley Recyclers, which provided community recycling centers in the valley.

Laura Temple Haney supervised the Environmental Studies work crew and under her leadership the crew undertook many projects. The best known of these was the Black Swan Center. This Black Mountain/Swannanoa project grew out of a land-use and economic development study conducted by Swannanoa Valley residents and Warren Wilson faculty, staff, and students beginning in 1985. The Black Swan Center was initiated in 1988 with the purpose of stimulating sustainable community development in the Swannanoa Valley and was the first Economic Renewal Program of the Rocky Mountain Institute in the east. A Warren Wilson student directed each of the 14 programs of the Center. Until its close in 1992, the Black Swan Center was the nursery for several significant sustainable community organizations and initiatives.

I think that it is important to notice that these early initiatives depended upon the commitment of individual faculty supported by the efforts of students. It is also important to note that, while the policies and program plans produced were thought by their originators to be the product of a growing understanding of the proper relationship between humans and nature, that growing understanding seems not to have been much

of a topic for discussion by the community at large. Nonetheless, in 1990 Warren Wilson adopted a College Mission that included the statement, “WWC invites to its educational community individuals who are dedicated to personal and social transformation and to stewardship of the natural environment.”

In 1990 a representative committee was appointed to develop a Long Range Facilities Plan based on “pattern language” as the methodology for developing the underlying principles that would, in turn, guide the development of best practices. The notion of pattern language was taken from the book *A Pattern Language*³ in which architect Christopher Alexander argued that community development should be guided by a set of community-determined principles that help guarantee the internal physical integrity of the community. As Alexander explained it “...we may define a pattern as any general planning principle, which states a clear problem that may occur repeatedly in the environment, states the range of contexts in which this problem will occur, and gives the general features required by all buildings or plans which will solve this problem.”⁴ The planning patterns are supposed to work together like words in a sentence to produce an overall design language. I joined the Facilities Planning Committee in 1991 and read Alexander’s books. I was surprised to find that the only other person on the committee who had done so was Dean of Work Ian Robertson. Dean Robertson had made a presentation of the pattern language approach to the college community and it appears to have been adopted on the basis of that rather limited presentation and confidence in Dean Robertson. The Facilities Plan developed by the committee was presented to the community in 1992. The fundamental principles underlying the plan were that:

- The Warren Wilson campus will reflect its rural setting and village concept.
- The presumption is in favor of aesthetics (including trees and other natural features) and people in locating utilities, roads, buildings, etc.
- Design choices will prefer minimal environmental impact and maximal energy efficiency.

- People, aesthetics and environmentally sound choices may frequently be in tension. Therefore, these will be weighted in each planning decision on a case-by-case basis.

In 1991 Douglas M. Orr, Jr. became the President of Warren Wilson College. There is no doubt in my mind that Doug Orr has been the single most important source of an increased College commitment to environmental stewardship and the emphasis on sustainability today. In 1994 President Orr appointed a new Long Range Land Use Committee charged with expanding the Facilities Plan into a Land Use plan complete with pattern languages for all aspects of campus operations. The initial version of the Long Range Land Use Plan was approved by Staff Forum and Student Caucus and adopted by the Board of Trustees in 1996. The plan added to the general language patterns that dealt with appropriate density of campus buildings, maintenance of the valley for agricultural purposes, filtering views of buildings, recognition of the importance of protecting the Swannanoa River, and maintenance of a strong sense of place. The plan also identified ten guiding principles for land use decisions:

1. No decision should be taken regarding use of the land which would negatively affect the physical or philosophical sense of place that exists here.
2. All decisions about land use should be tested by discussion and intuitive thought.
3. Changes in land use should be structured so as to yield a strongly net positive effect on the land and the community.
4. Proposed major changes in land use should be presented to and discussed by the WWC community for recommendation to the President and Board of Trustees.
5. Long-term development within the campus lands should not be allowed to erode the pastoral nature of the place. In particular, sprawl should be avoided in any growth of the College.

6. We should learn from past successes and mistakes.
7. Change is usually driven by individual programs. Potential impact on the larger community must always be considered in evaluating land use issues.
8. A mechanism for maintenance must be a part of any ongoing plan.
9. The riches of the land that the College enjoys must always be seen as an endowment. As such they must be managed for the good of the community.
10. Everything at Warren Wilson must work for the common good. None of the land or its fruits should be neglected.

Lurking among these “principles” are some of the lessons we still need to learn: that we should learn from the past, that decisions need rich discussion, that change driven by individuals needs to be evaluated in a broader context, and that plans require mechanisms to ensure their ongoing application.

The Long Range Land Use Plan has been continually improved. Solid Waste and Hazardous Materials Pattern Languages, written primarily by student members of work crews, were added in 1996. In 1997 a Campus Parking Policy was added eliminating cars for first year students and establishing a free van shuttle to Asheville. This addition was primarily a result of work done by Student Caucus members. In 1998, farm manager John Pilson wrote a Farm Long Range Land Use Plan with the assistance of student Farm Crew members. Landscape Pattern Language was added in 1999 written by college landscapers Tom LaMuraglia and Stephanie Anderson with the assistance of Landscaping Crew members. In 2000 professor Louise Weber wrote a Native Biodiversity, Wildlife, and Fisheries Pattern Language based on work done by members of her wildlife biology classes. A Purchasing Pattern Language, written by CFO Larry Modlin and Assistant Farm Manager Chase Hubbard, was added in 2000. Each of these additions was the result of dogged leadership from one or two individuals supported by the efforts of students in a course or on a work

crew. A pattern language still needs to be developed for Energy & Transportation, Water and Air Quality, Personnel, and Construction. I think there needs to be an administrative commitment of resources to the writing of these patterns, instead of waiting for an individual champion with a personal interest or a class or crew of students to push the issue.

In 1996 President Orr extended an invitation to John Huie, former director of North Carolina Outward Bound, to develop an Environmental Leadership Center at Warren Wilson College. The mission of the Center was to “raise awareness of local, national and global environmental realities and to inspire caring citizens - especially our youth - to reflect, to communicate, and to act as responsible caretakers of the earth.” The Center functioned mostly as an autonomous administrative unit, with its director reporting directly to the president, and with its own fundraising efforts, heavily subsidized by the College. In spite of its outreach mission, ELC staff members provided important leadership for College programs and planning initiatives as well. Partly in recognition of these internal efforts, in 2005 the ELC became an Academic Affairs program with its director reporting to me as Interim Vice President for Academic Affairs. I believe that this change in administrative structure was important because it provided for centralized administrative leadership for the many environmental projects and initiatives of the College. In 2006 Margo Flood became the Director of the ELC and she has provided staffing support for many college programs and administrative guidance for most of our major sustainability initiatives since then. In recognition of the internal importance of the ELC, President Sandy Pfeiffer this year resumed direct reporting to the President by the Director of the ELC, appointed Margo as the first Director of Sustainability for the College, and gave her a seat on the President’s Advisory Council along with the deans and vice presidents of the College.

Sustainability

In 1997 President Orr appointed the Process Steering Group for an Environmental Campus. As I understood it, his thinking was that it was not enough to have pattern languages to guide decisions or even written policies to guide actions. In addition there had to be a commitment to the welfare of the

environment by the institution through its governance structure right up to the trustees. The Process Steering Group was charged with developing an environmental commitment statement. In May of 1997 Staff Forum and Student Caucus approved a general Environmental Commitment Statement. I'll read the statement to you, not because I expect you to understand it based on one reading, but because I want to give you an idea of just how difficult it would have been for a community of 800 to come to a common understanding of its content rather than approving it "in principle":

One of the major factors that encourages students, faculty, volunteers, and staff to come to Warren Wilson College is the perception that we are an active, participatory community that shares a deep commitment and a passionate concern for the health of our planet. We seek to display and honor that commitment and concern in the way we learn, the way we work, and the way we live. We are interested in conserving resources, reducing waste, and eliminating pollution, but our feelings extend deeper to a recognition that we are also component parts of an interdependent web of social and ecological relationships. The recognition of our membership in this ecological community leads us to reconsider our ideals, values, and organizing principles. Ours is a working landscape, rooted in a particular bioregion, and part of an interconnected, but limited, global commons. We recognize the need to exercise wise use of the resources of the global commons, and, at the same time, the need for a deep, aesthetic, spiritually-based involvement with the community that extends beyond the human inhabitants of Warren Wilson. An essential goal of Warren Wilson College is to develop good environmental citizens who recognize and perform their duties and responsibilities as members of the larger human and ecological communities in which we live.

We understand that to fulfill this goal we must institute a process of democratic information acquisition and decision making which will lead to the development of an effective environmental policy.

President Orr was also interested in the College making a more public statement of its commitment. In 2000 Warren Wilson College became a signatory of the Talloires Declaration. I suppose you know that the Talloires Declaration is a ten-point action plan for incorporating sustainability and environmental literacy in teaching, research, operations, and outreach at colleges and universities. It has been signed by the chief officer of hundreds of colleges and universities around the world. Developments in programs, policies, and procedures at Warren Wilson since 2000 do reflect our Talloires commitment to “openly addressing the urgent need to move toward an environmentally sustainable future,” to “create an institutional culture of sustainability,” to “educate for environmentally responsible citizenship,” to foster environmental literacy, and to develop collaborative interdisciplinary approaches to sustainability.⁵ What is not clear to me is whether our actions were at all prompted by our commitment to the Declaration. I doubt that very many students, staff, or faculty could recite even one of the Talloires commitments. I think that the greatest effect of our various commitment statements has been to create and reinforce a climate of commitment to the environment and sustainability and a disposition in individual community members to act in ways that they feel reflect those commitments.

In 2003 President Orr appointed a task force to develop a new strategic plan for the College in preparation for reaccreditation. The taskforce reviewed the existing College Mission statement as the first step in developing a plan. Most of us on the taskforce were convinced that the 1990 commitment to “stewardship of the natural environment” did not adequately present the level of commitment to sustainability represented by the Talloires Declaration or our own Environmental Commitment Statement. To the general description of the college mission of providing “an education combining liberal arts study, work, and service” we recommended adding “with a

strong commitment to environmental responsibility.” This revision was approved through the college governance system and adopted by the trustees. This may not seem like much of a change, but in effect this wording added environmental commitment to the triad of academics, work, and service that had defined the institution since its inception and placed the educational mission of the college squarely in the context of our commitment to sustainability.

Lessons

I suppose that a simple recounting of the history of green initiatives at Warren Wilson College might provide some inspiration for other institutions to follow suit, but I hope there are some lessons to be found in our history as well. While I was growing up, my father often had to remind me that I could learn more from my mistakes than from my successes. I could succeed without knowing how I’d done it, but I could figure out the causes of my failures. So I have tried to figure out what we have learned through our successes and failures.

I have reviewed only our main environmental and sustainability commitments with you. In 2006 our Campus Greening Committee put together a report entitled “Toward Sustainability” in which it reviewed all of the commitments we had made, keyed to a list of documents containing them. In bulleted form the list fills nine pages. In reading through these commitments I am convinced that most of us at Warren Wilson – students, staff, faculty, and administrators – did not understand in more than a vague way what we were committed to believing or doing. After the announcement of Margo Flood’s appointment as Director of Sustainability, she was asked, “Can you explain what is meant by sustainability?” Her answer was that we would have to figure that out together as a community.

In reviewing the greening efforts at Warren Wilson, I’ve come to realize that making a commitment to something vaguely understood might be more efficacious than waiting until one understands fully. In hindsight I see that one might not need to be clear in ones thinking in order to change ones behavior. I instantaneously became a vegetarian during my first date with a vegetarian who became my college sweetheart. I think she had

some ethical reasons for being a vegetarian and we subsequently developed some good arguments for our joint practices based on concerns for our own health, for world hunger, and for the treatment of food animals, but I did not really think about these issues in deciding to join in a commitment made by someone I respected. I am pretty sure that many faculty, staff and administrators at Warren Wilson have committed themselves to practices and policies without a clear idea of the costs and efforts that would be required and without much more of a reason for their commitment than that the idea came from a respected source or was just patently a good one. Having made the commitments, we figured out how to keep them and produced an impressive list of accomplishments. If I read you the list and named those most responsible for each accomplishment, in nearly every case you would find a few students and a single staff, faculty, or administrator with a very strong personal interest in the project, working with little oversight and little coordination with other efforts. That is also what we found in reviewing the history of the college environmental and sustainability commitments and policies as well. The freedom to pursue individual initiatives has yielded many innovative ideas and I hope we do not lose that, but we need a system for coordinating initiatives and clearer priorities for allocation of resources.

Fulfilling our various policies and commitments has also been mostly dependent on individual initiative. It has been suggested that instead of the pattern language approach, we should have detailed rules and enforcement. Act and Rule Utilitarians have long argued the issues, but as I see it, finding our way into the uncharted areas of sustainability will require principle driven decisions. Men of good will may need no rules, but only when they have a good understanding of the principles involved. We need to shift an important portion of our energy and attention to community discussion of the ideas that define the sustainability to which we are committed and inform the value based decisions we must make. It is probably a good bet that Warren Wilson will continue to attract folks interested in individual initiative, so we will need an on going dialogue about both sustainable practices and the deep principles that recommend them.

Evidently in an attempt to provide concrete examples to aid in understanding the 1997 Environmental Commitment Statement, the Process Steering Group presented a set of environmental Goals. The first was to “strive within the limits of practical considerations to conserve energy and resources, reduce waste, purchase environmentally friendly products, and minimize our adverse impact on the surrounding environment.” The main thrust of current greening efforts at Warren Wilson is to develop a full set of environmental audits to measure our progress in meeting this goal. Having the data is important, but without a clear set of values the data will not allow for *e-value*-ation of our actions. I am more interested in the second goal the Steering Group presented, which was to “recognize and promote efforts to increase a deep, aesthetic, spiritually-based awareness of our connection to the environment among the members of this and the larger community.” Becoming greener in our behavior alone will not accomplish that goal. A deeper common understanding will take a meeting of our hearts and minds.

The fourth action required of signators to the Talloires Declaration is summarized as “foster environmental literacy for all,” but the text of the declaration explains that this is to be done by creating “programs to develop the capability of university faculty to teach environmental literacy to all undergraduate, graduate, and professional students.”⁶ I am the Director of a program at Warren Wilson College, Advancing Environmental Literacy, funded by a generous grant from the Arthur Vining Davis Foundations. Three teams of three faculty have each just finished designing a multi-disciplinary, team-taught course on sustainability issues associated with the broad concept of “land.” In the next two years we will do the same for “energy” and “water.” We will be providing workshops for faculty from other institutions who are interested in the multi-disciplinary/theme approach. Part of what we have learned from our work together is that even faculty in discipline sub-areas directly dealing with environmental and sustainability issues need the opportunity and a good reason to talk together about the important issues and methodologies for understanding them. The nine faculty in the program represent Art, Sociology, Gender and Women’s Studies, Environmental Studies, Geography, Global Studies, Economics, Creative Writing, Mathematics, and Philosophy. While we have

mostly known each other for at least a few years, I doubt any of us has found another opportunity to try to understand each other's commitment to sustainability or to try to find the common core of our concerns.

My review of the greening efforts at Warren Wilson College has reminded me that we bypassed deep conversation in order to focus on sustainability efforts. I think that may have allowed us to move more rapidly into action and we have accomplished an impressive array of different projects. However, it is time now for us to focus on the most important issues in sustainability and finding what is most important requires a deeper understanding of our values. We have put most of our institutional efforts and attention into walking our talk. I am convinced that now we need to talk our walk.

¹ The chronology of sustainability initiatives, policy documents and commitment statements used here are from "Highlights of Sustainable Practices." In Warren Wilson College website. Swannanoa, N.C., 2008 [cited 25 September 2008]. Available from <http://www.warren-wilson.edu/environmental/sustainability/highlights.php> and "Timeline of Environmental Commitments." In Warren Wilson College website. Swannanoa, N.C., 2008 [cited 25 September 2008]. Available from <http://www.warren-wilson.edu/environmental/sustainability/approvedcommitments.php>.

² The full text of the policy documents and commitment statements quoted here are from "Reference Guide to Environmental Commitments." In Warren Wilson College website. Swannanoa, N.C., 2008 [cited 25 September 2008]. Available from <http://www.warren-wilson.edu/environmental/sustainability/reference.php>.

³ New York: Oxford University Press, 1977.

⁴ Christopher Alexander, *The Oregon Experiment* (New York: Oxford University Press, 1975), p. 101.

⁵ "Talloires Declaration," Association of University Leaders for a Sustainable Future, http://www.ulsf.org/programs_talloires_td.html.

⁶ *Ibid.*



The Greening of a Curriculum

Mark O’Gorman
Maryville College

I was hired a decade ago as an instructor of environmental studies and coordinator of the Environmental Studies (ENV) major at Maryville College (MC) to assist with “green” curriculum development. One of my tasks has been to work with others to help connect environmental and sustainable curricular models into MC’s existing liberal arts undergraduate teaching program. A second task has been to incorporate MC’s rich church-related, spiritual and service history into the ENV curriculum. A question that has always followed me during my journey here has been: “To discern our planet more fully, which is needed more at a college – curriculum or community?”

This short paper will briefly describe the development of Maryville College’s green curriculum, and how its components connect to the “reformed and always reforming” Presbyterian tradition.¹ By reviewing Maryville College’s general education environmental and ethical offerings, its traditional disciplinary structure, and its newly created majors, it will be shown that MC has been quite thoughtful in its attempts to make environmental ethics an important component of its educational mission.

We will also compare MC’s curricular journey with the national reformation of environmental curricula and sustainability programming in higher education; reform that is quite new in comparison to the long and rich history of classical liberal education. For example, Middlebury College has the oldest established undergraduate environmental studies program in the nation. It was founded in 1965.² Philip Brick’s study of

environmental politics curricula found, in general, that environmental studies (ES) is a “young and eclectic field” whose lack of “grand theories or seminal historical debates,” make it a relative newcomer to higher education curricula.³

This suggests another question. Is the environmental studies discipline, not yet fifty years old, ready to move from the children’s ethical table and sit with the adults? Can ES provide meaningful input into a discussion on ethical topics found in religion and philosophy whose pedagogical roots, Kimball suggests, reach back at least to Capella’s fifth Century *De Nuptiis Philologiae et Mercurii*?⁴ Or provide input to a discussion of values that Gibson suggested was a central tenet of Cicero’s “artes liberales” from 1,000 years ago – the building blocks of today’s liberal arts education?⁵

I believe newer disciplines have distinct perspectives and voices that may help our discussion. First, ES is interdisciplinary. It has also been called cross disciplinary, multidisciplinary, trans-disciplinary, or some part of all four. As such, our discipline is pedagogically wired to bring purposefully together disparate disciplines and teaching modalities. Silos of knowledge and compartments of disciplines, while important, are not the end of the scholastic journey in ES. The worldview of ES is one of joyfully embracing the complexity of a host of environmental issues, and being “a community of environmental scholars and scientists, not a confederation of disciplines.”⁶

When I first read the community/confederation quote noted above, it was on the home page of the recently created Association for Environmental Studies and Sciences (AESS), I had to smile at the quote’s tone. It suggested that a grand revelation had been discovered by the society’s founding members, and it was being breathlessly transmitted to the masses. I grinned because I was already living the goal described in the quote. Is not AESS’ expectation the very essence of the liberal arts found in the mission statement of Maryville College, or in the goals and classes of the other institutions represented here this weekend? Is this community the cornerstone of what liberal education has done well for over a millennium? What past

wisdom should be brought forward from the past, and combined with present innovations, to form an environmental ethic?

AESS has brought forward one past insight and embraced it anew. In a later passage of its mission statement, AESS expects, in its early discussion with other disciplines on ES' role in higher education that its members need to "require humility about what we know and don't know, both as individuals and as representatives of disciplines to discover the creative synthesis of new knowledge."⁷ If embracing humility is an important step in an environmental community's enlightenment journey, then any community could learn much from how faiths embrace and use humility in their spiritual journeys. Micah 6:8 suggests that the answer to "What is Good?" is to do justice, and to love kindness, and to walk humbly with your God. What are the central tenets of the so-called "humility portion" of the green curriculum? Which components of non-western or western faiths should be used in making an ecological ethic? And how do we blend social, scientific and spiritual teachings to discern a sustainably ethical good?

Environmental teachers also remind us about the spiritual limits of the built environment when undertaking an ethical journey. Thoreau's famous line "In wildness is the preservation of the world" suggests that both our forests and our temples can be knowledge bases that will lead us closer to ethical clarity.⁸ What part of wildness must enter into our temples to make us discern our environmental ethic? What part of Micah's path was successful because it was "natural"? Is the best way to sustain ourselves spiritually is to do so by also sustaining the planet? Some part of the answer must be yes, because I believe Maryville College's ethically green curriculum does that, and is worth reviewing.

Maryville College's Green Curriculum

When speaking about the curriculum of any higher education institution, three categories are traditionally discussed. There are the institutional-level programs and courses required of all students. Majors and minors designated for each school form the second level of curriculum. The third level is the co-curricular or non-traditional disciplines specific to the school's

topical interests and resources. Maryville College's curriculum echoes those three layers. And in each layer are both explicit and implicit curricula goals targeting environmental topics and issues.

The Maryville Curriculum, the school's general education program (known by students as "the core"), is the college's signature and distinctive feature. A four year set of course requirements comprising nearly half of the students' program of study; MC's core contains environmental and ethical features that explore both topics in thoughtful ways. Individual courses in the core, and the Maryville Curriculum in total, transmit knowledge and skills to students, and are beginning the process of cultivating greater purpose in one's life. Recognizing that students should learn to "deal responsibly with a world of uncertainty and accelerating change," the core turns the ideals of the liberally educated person into curricular action.⁹

The January Term seminar within the First Year Seminar (FYS) series of courses taken by all first-year students, FRS130: Perspectives on the Environment remains one of the few all-freshman environmentally focused courses in liberal arts colleges in the United States.¹⁰ Begun in January 1997 with the new core curriculum, FRS130 uses the three week inter-term in January to discuss environmental issues from a range of perspectives. The course builds upon MC's, tradition of offering experientially-based and untraditional topics in January. The faculty group creating FRS130 saw the college's location near the Great Smoky Mountains, and the popularity in past ecologically-themed January courses, as powerful rationales for choosing the environment as the topic about which to focus the entire three weeks freshman class.¹¹

Starting with a historical perspective in Week One, a topical and laboratory component in Week Two, and a personal and ethical focus in Week Three, FRS 130 combines classroom discussion, laboratory and field work, guest speakers and field trips in exposing students to differing learning styles. It also offers differing perspectives on a greater range of environmental issues which provides a basis for further discussion on how these topics have impact on their worldview and values.¹² Student

environmental instruction culminates in Week Three with the capstone event in the course, the creation of each student's personal environmental ethic. Each student writes an essay answering the question "What is my Personal Environmental Ethic?" Its content combines personal reflections about the course, the impact on their value system, and why. The environmental ethic essays are kept by the College, and then returned to the students in January of their senior year during ETH490: Philosophical and Theological Foundations of Ethical Thought. Students are asked to respond to themselves three years later. They write an essay about how their views have remained the same, or changed, and why. ETH490 professors, using the essays, have been able to generate greater discussion on environmentally ethical issues.

In concert with MC's core curriculum, a number of traditional and newer disciplines and majors form a constellation of environmentally related programming at MC. A brief historical review of the evolution of my school's curriculum finds that classical liberal arts courses in literature, foreign languages, philosophy and rhetoric and biblical studies can be traced back to the earliest days of Maryville College.¹³ These include the curricula of Union Academy, the Southern and Western Theological Seminary and the antebellum MC, and described by one MC scholar as "Maryville's frontier years."¹⁴

Evidence of natural science curricula at Maryville College was found in MC catalogs beginning in 1875, which described new scientific equipment purchases made by a gift to the College. The Ladies' Course, the curricular descriptor for women MC students 100 years ago, suggested greater natural science rigor as courses in Astronomy, Chemistry, Botany, Geology and Mineralogy.¹⁵ By 1936, Maryville College would describe its science laboratories as among its strengths.¹⁶ And the 1939 Divisional Plan created six divisions, including those in Bible, Philosophy and Education and in Science echoed in today's divisional structure.¹⁷

The "New Curriculum of 1967" at MC was the precursor of today's Maryville Curriculum, but also formed the basis for a forty year tradition of inquiry-based course work in

interdisciplinary and multidisciplinary courses that forms the third level of curriculum development at MC.¹⁸ With courses entitled “Man’s Search for Meaning,” and “Science Thought,” MC has nearly a half century history of attempting to wrestle with questions similar to what we consider this weekend.¹⁹ The college found innovative ways to provide students with tools to resolve complex ethical-environmental issues. Legendary biology professor Dr. Randolph Shields helped create the Tremont environmental center in the Great Smoky Mountains as a joint Maryville College-US National Park Service learning laboratory for K-12 students and future environmental educators in the late 1960s.²⁰ It was one of a number of curricular arrangements beyond the classical course load that MC supported. The establishment of an Appalachian Studies minor in the 1990s, and the establishment of an Environmental Studies major in 1994-1995 further connected MC’s liberal arts inquiry tradition to new topics of interests.²¹ International programming of the past decade has accelerated, adding a global and experiential dimension to ethics and environmental coursework.²²

I fear, however, that this listing of MC’s green curricular journey, while helpful in framing our discussion, is inadequate in capturing the deeper journey our school has taken in shaping young minds. No one vignette could capture how MC develops an environmental ethic, but this short narrative comes quite close:

[He] had the ability to help one see the world as a dynamic oneness. If I had the wit at the time, I would have called his hikes in the mountains “Buddha walks.” To him anything and everything was a matter of importance, everything was related, nothing was beneath notice, everything was becoming, nothing was uncommon, everything was special...Dr. Shields taught me to avoid anthropocentrism and to love my mother. He taught me to be here, now.²³

Former MC student and current English instructor Dave Powell’s tribute to his mentor, advisor and former MC biology

professor Randy Shields suggests that catalog copy is not enough to explain any school's liberal education, and its environmental education. Colleges must realize that it is critical to create a liberal arts college-wide environmental ethic. Changes are occurring that will quickly overtake colleges without one.

The US Greening Curriculum Story and Its Challenge: Satiating the Sustainers

Colleges and universities are about to undertake the largest change in their operations and physical plant capabilities since the Internet revolution of the 1990s. Campus sustainability – the so-called “green campus” movement of energy saving, resource conservation and eco-living that is transforming campuses in North America and around the world – is now entering the mainstream of college life. The Princeton Review ranking publication is adding campus environmental ratings to its publications for the first time in the fall.²⁴ Campus sustainability officers (CSOs) are being hired at a rate triple that of just three years ago to facilitate campus greening.²⁵ At least a dozen college green ratings and rankings systems currently exist; including the Sustainable Endowment Institute's College Sustainability Report Card, rating systems by Sierra Magazine and Grist Magazine and the American Association of Sustainability in Higher Education (AASHE) and its Sustainability Tracking, Assessment & Rating System.²⁶ Many universities boast about their sustainable programming on campus or their energy-efficient LEEDTM certified buildings. In that spirit, in spring 2008, Maryville College compiled a list of forth eight environmental activities completed on campus.

The successful campus of the next decade will be seen as an environmentally aware and sustainable post-secondary institution. What part of this awareness is ethical? Would not we all agree that the moral student (or ethical college or university) is one that is in some part sustainable? But is sustainability an ethical means, or the ultimate end? And should not liberal arts education provide students with an edge in crafting and following a sustainability ethic? If so, then how much and in what ways can it be quantified?

Regardless of the discipline, colleges must begin to review seriously how environmentalism has impact on their community and the work of its students, faculty and staff. Higher education recognizes it is time to fully live up to its part of the 1987 Brundtland Commission's charge for the planet: "meeting the needs of the present without compromising the ability of future generations to meet their own needs,"²⁷ Schools need to determine explicitly their institution's environmental ethic. And not just determine what elements would go into a collegiate environmental mission statement, but also what actions the campus community will undertake to live that ethic. The un-lived ethic is an untested experience and a value system doomed to failure. Given that students are action oriented, should one element of an environmental ethic combine theory and practice? A praxis-based ethic is a crucial means by which to imbed an ethic into a student, or student body. And more than ever, students expect values turned into action in their lives. In a phrase, the sustainers have arrived.

The generation of young adults coming to our colleges, called the millennials by demographers, are more focused on the environment than any past generation. These students are lifetime recyclers and have been exposed to more K-12 environmental curriculum than any student cohort. More global in their worldviews, digitally native in their capacity to access information, and therefore more quick to make ethical connections between distant lands that creates unsettling questions in classrooms and dining rooms,^a I argued; that these young people are the first collegiate generation of sustainable development advocates: the sustainers.²⁸ But sustainers need structure, discipline, focus, and content on the theories behind ethics and sustainability. And they need to see us modeling our content. This is the generation whose number one televised news source is *The Daily Show with Jon Stewart*, a comedy show that uses real journalism as satire to skewer society. The Sustainers are much attuned to hypocrisy and green washing.

Can we focus their attention to use the planet as a locus for study and investigation of ethical ideas, whether in the

natural sciences, social sciences or humanities? Can “sustain,” defined by either theologians or geoscientists, be one common phrase that allows connections to be made among lectures on Costa Rican biodiversity, the New Testament, or the Koran? I hope so. Because I do fear that the environmental movement is moving forward in some ways without faith communities at its side. At one level, this is arrogant thinking by ES scholars. Sustainability was first defined by faith communities, and ES would be greatly served having ethicists at its side as sustainability issues become more complex. But how can ethics help when sustainable development no longer becomes just a curricular journey, or just a political issue? Instead, it becomes a moral choice; indeed, *the* moral choice.

¹ Maryville College. “Maryville Mission: Faith & Learning Statement.” 2008, <http://www.maryvillecollege.edu/about/mission/faith.asp>. Accessed 14 August 2008.

² Middlebury College. *Environmental Studies Home Page*. 2004. <http://www.middlebury.edu/academics/ump/majors/es/>. Accessed 11 August 2008.

³ Philip Brick. “The Greening of Political Science: Growth Pains and New Directions.” *Perspectives on Politics* June 2004 Volume 2, Number 2, 337-346, 338.

⁴ From Bruce Kimball, *Orators and Philosophers: A History of the Idea of Liberal Education*. (New York: NY: Teacher College Press, 1986), 22. ; in Gerald W. Gibson. *A Good Start: A Guidebook for New Faculty at Liberal Arts Colleges* (Bolton MA: Anker Publishing , 1992), 66-67.

⁵ Ibid.

⁶ Association for Environmental Studies and Sciences. “About AESS.” 2008. http://aess.info/content.aspx?page_id=22&club_id=939971&module_id=35440 . Accessed 14 August 2008.

⁷ Ibid.

⁸ Henry David Thoreau, <http://quotationsbook.com/quote/41356/> and *The Atlantic Monthly*, Volume 09, No. 56, June, 1862.

⁹ Maryville College. The Maryville College Core Curriculum. 2008. <http://www.maryvillecollege.edu/academics/catalog/gen-ed/index.asp>. Accessed 12 August 2008.

¹⁰ FRS120: Perspectives on the Individual in fall semesters, FRS130 in January Term, and FRS140: Perspectives on the American Community comprise the entire First Year Seminar (FYS) series at MC.

¹¹ English Professor Dave Powell's January Term course in the 1990s "Save The Earth" was a precursor for much of what became FRS130.

¹² Maryville College. "Students Weigh In on Environmental Issues." Winter 2006. <http://www.maryvillecollege.edu/news/pubs/focus/winter-2006/frs130.asp>. Accessed 12 August 2008.

¹³ Ralph Waldo Lloyd. *Maryville College: A History of 150 Years 1819-1959* (Maryville, TN: Maryville College Press, 1969), 121-134.

¹⁴ *Ibid*, 122.

¹⁵ *Ibid*, 123-124.

¹⁶ Carolyn L. Blair and Arda S. Walker. *By Faith Endowed: The Story of Maryville College 1819-1994* (Maryville, TN: Maryville College Press, 1969), 234.

¹⁷ Lloyd, *Maryville College*, 129.

¹⁸ *Ibid*, 132-133.

¹⁹ Blair and Walker, *By Faith Endowed*, 305.

²⁰ *Ibid*, 297-298.

²¹ Interview conducted with Dr. Susan Ambler, Associate Professor of Sociology at Maryville College and chair of the Environmental Studies task Force. 12 August 2008.

²² Maryville College. "Study Abroad." 2006. <http://www.maryvillecollege.edu/academics/studyabroad/index.asp>. Accessed 14 August 2008.

²³ Blair and Walker, *By Faith Endowed*, 323-324.

²⁴ Jordan, Erin. "Princeton Review Ratings Go Green." Des Moines (IA) Register. 22 April 2008. <<http://www.desmoinesregister.com>> Accessed 18 June 2008.

²⁵ American Association for Sustainability in Higher Education (AASHE). *Higher Education and Sustainability Officer Position and Salary Survey*. January 2008.
<http://www.aashe.org/resources/pdf/sustainability_officer_survey_2008.pdf>
Accessed 24 June 2008.

²⁶ American Association for Sustainability in Higher Education (AASHE). “*STARS FAQ*.” 2008.
<http://www.aashe.org/stars/faqs.php>. Accessed 24 June 2008.

²⁷ United States Environmental Protection Agency. “Sustainability.”
<<http://www.epa.gov/Sustainability/>>. Accessed 24 June 2008

²⁸ Elizabeth Redden “Sustainability Failures.” Inside Higher Education.com, 2008, 23 July 2008,
<<http://www.maryvillecollege.edu/academics/studyabroad/index.asp>>.
Accessed 14 August 2008 Mark J. O’Gorman. “Reconciling a Sustainability Failure: No Green Building But Green Planning.” Presentation to the 43rd Society of College and University Planners (SCUP), Montreal, Quebec, Canada. 22 July 2008.



Love, Respect, and Reverence and the Environment

Thomas D. Kennedy
Berry College

As a boy growing up a couple of hundred miles east of Maryville in King's Mountain, North Carolina, my friends and I did more than a little tromping through the woods. I don't believe we ever came upon a whorled pogonia flowering in spring as did Holmes Rolston. I have learned that those might have been seen next door in Rutherford County but not in Cleveland, my county. But we did once happen upon an American woodcock. I myself am suspicious of the accuracy of my report of what followed from the discovery of the woodcock; readers should be as well. What I think I remember upon seeing the woodcock, though, is a feeling of something other than curiosity or, perhaps, something in addition to curiosity. I think we felt something in the family of awe. We boys had never seen anything like this bird before, had never been so close to so unusual a bird and we were dumbfounded in its presence before us. We recognized it as a thing of great value and, foolishly, I think we wanted to possess it. But at the same time, or very soon thereafter, we realized that possession of this bird was not a good thing. What we felt, it seems to me now, was closer to reverence than to respect, though still pretty far from reverence.

The 2008 Maryville Symposium, "Discerning a Moral Environmental Ethic," opened with the comments of the scholar who, more than anyone else, has shaped the field of environmental philosophy, Holmes Rolston, III. In "Caring for Nature: From Respect to Reverence," Holmes Rolston directs our attention to moral emotions, and suggests that an appropriate

environmental ethic might include dispositions of respect *and* reverence for creation. No, perhaps that's not quite right. Professor Rolston's subtitle is "*From Respect to Reverence*." His argument is that if one sees what is really present in creation, if we recognize the amazing plenitude and creativity that exists in all that surrounds us, this should evoke in us something more than mere respect. Real attention to the creativity in the world should and does trigger *reverence* for creation in anyone who attends properly to this facet of creation.

Having carefully led us through the forests of plenty, Rolston points out that even the most ardent of secularists, "tugged by a deeper undertow than they realize", are moved to religious rhetoric before the miracle of biodiversity. "The secular—this present empirical epoch, this phenomenal world, studied by science—does not eliminate the sacred after all; to the contrary the secular evolves into the sacred." Thus, we move from the secular respect for life to the sacred reverence for life.

One might agree with Rolston, I think, and yet conclude that what he has given us is insight into the character of an *aesthetic* (or even *religious*) experience of our world, an identification of an appropriate *aesthetic* emotion before the "enthraling creativity" of the universe—if you really see what is going on around you, you *will* feel reverence for life—but nothing that figures very prominently in an environmental *ethic*. Put differently, Professor Rolston most helpfully has directed our attention to certain emotions relevant to our perception of the universe and its character, though it is not clear whether the emotions are best characterized as moral or aesthetic or religious. Furthermore, we get less help than we need from Rolston when it comes to understanding exactly what reverence for life is and how it differs from respect for life. Professor Rolston comments rather cryptically near the end of his paper that "the line between respect for life and reverence for life is one that I doubt we can always recognize and one that is more important than we think."

It may be that the relation of aesthetics and ethics is, in fact, closer than we typically think. It may be that the proper attention to creativity does trigger an attitude of reverence. It may be, as well, that a failure to feel reverence before the

fecundity of creation is a *moral* failure (a shortcoming, I might add, that anyone who has walked with Holmes Rolston through a forest is likely to attribute to him or herself, for in the presence of moral saints we see better our real character; we see how small we are next to giants like Rolston). The failure to feel reverence *may be* a moral failure. Or, perhaps it isn't quite *reverence* that we should feel in attending to biodiversity but a profound appreciation—perhaps awe—and respect and, well, love. I suspect that the appropriate emotional response to the wonder of biodiversity *is* a profound appreciation and that this appreciation and respect will suffice to accomplish the moral work needed to address the sorts of problems identified by biologists Drew Crain and Ben Cash.

Profound appreciation, awe, love, respect, reverence. But these do differ and which, if any, is the appropriate moral emotion before nature or some aspect of the natural world, requires more work. But what we do have here is a theme, a concern, which ran throughout the symposium papers—the importance of the emotions for environmental ethics, the need to identify an appropriate emotional response or particular virtues or traits of character with emotional content in constructing an appropriate environmental ethic.

If Rolston establishes that anyone who attends to the creativity of life is pulled towards an acknowledgement of the mystery of this creativity and, thus, a reverence for life, our next group of speakers turn to the author of that natural creativity, the Creator God. Steven Bouma-Prediger, Cecilia Calvo, and Rusty Pritchard share with us how creation looks from within the biblical narrative and Christian traditions formed by that narrative. Bouma-Prediger (and his students) recognizes that things are very wrong in our world and asks how those who would follow Jesus can be so much a part of what is wrong in our world. If we understand that God's project *is* shalom, the flourishing of all things as the sorts of things that God intends for them to be, then how can we become the agents of God's shalom rather than be the agents of environmental destruction?

Christians, shaped by the biblical narrative, must develop the appropriate virtues, the "virtues of shalom" as

Bouma-Prediger puts it—peaceableness, justice, compassion, and wisdom, discussing here only peaceableness and wisdom. Peaceableness is “the settled disposition to bring about concord among those in conflict,” wisdom, of which “ecological wisdom” is one expression, is “the settled disposition to make discerning practical judgments, informed by the biblical story and the accumulated experience of the Christian community, and aimed at what is truly good.”

I admit to being moved by Bouma-Prediger’s lyricism, and he is right, I think, to draw our attention to shalom and its centrality to Christian faith and hope. He is right, as well, about the importance of the virtues for any robust Christian ethics, environmental or otherwise. But I’m not convinced that Bouma-Prediger’s virtues of shalom ethic can do as much work as he seems to think when it comes to matters ecological. Assume for the moment that there *is* a virtue of peaceableness rather than that peaceableness is a state to which a number of virtues might, under appropriate conditions, lead us (a more plausible account of peaceableness, I think). Assume that peaceableness is a virtue. What does the person with this virtue make of nature red in tooth and claw? What does she eat? How does she deal with mosquitoes? I suspect that Professor Bouma-Prediger does not believe, as PETA recently has argued, that Ben and Jerry’s and all other ice cream should be made from human breast milk rather than cow’s milk, but I’m not sure what we would believe had we the virtue of peaceableness. Would we see things as PETA sees them? Towards what sorts of things does peaceableness incline us, now?

My reservations about the virtue of wisdom are not entirely dissimilar. I think Bouma-Prediger is probably right in saying that “the ecologically wise exercise restraint and take their time because they are attuned to the cycles and scales of the natural world,” but I don’t see the connection between Bouma-Prediger’s shalom and the cycles and scales of the natural world. Let me put it this way: Christian ethics must look backward, to the creation, as much as it looks forward to the new creation, shalom. And, as lyrical as Bouma-Prediger’s account of shalom is, it is too *new* a creation, too discontinuous with the creation we know. Or, to borrow a phrase from Holmes Rolston, we need to

ensure that we attend to “earthen nature as an original act of grace” as well as God’s project of shalom as present and future act of grace. Wisdom, ecological and otherwise, discerns the continuities and discontinuities between God’s original act of creation of earthen nature and the achievement of shalom.

It is precisely in this respect, in attending to the creation as Christians understand it, that Cecilia Calvo’s account of Catholic social teaching is most helpful. The four values she identifies as central to Catholic social ethics are: (1) the unique dignity and role of human persons; (2) a natural order and integrity of creation worthy of respect; (3) the earth as a universal common good to be shared and enjoyed by all persons; and (4) the special needs of the poor as fundamental concern of Christians. It is by means of the virtue of prudence, Catholic social teaching maintains, that we discern the common good in a particular situation and, having discerned the common good, identify appropriate courses of action. Prudence, or practical wisdom, is a virtue that enables one to discern a realizable common good, a good that is inclusive of the good of creation and of all humans, as well as to identify the courses of action that might lead to the realization of this good. And if there is perhaps too little of the eschatological telos or goal of the moral life in Calvo’s account there is, nevertheless, a fitting embrace of the natural order and integrity of creation.

Rusty Pritchard interestingly speculates on why evangelicals have been slow to embrace an appropriate creation care ethic despite professing allegiance to the biblical narrative Bouma-Prediger so eloquently presented. Evangelicals mistrust climate science because of their general mistrust of the scientific community and because of the reasonable concern of political and social conservatives with the size and power of centralized governments. My own speculations—and this is pure hunch, with absolutely no data for support—would be less intellectualistic and more moral in character. The problem of climate change quite clearly requires changes of lifestyle that most evangelicals, like most Americans, find undesirable. In other words, in most respects evangelicals are cultural conformists, good Americans, when it comes to lifestyle, and climate change threatens to cramp all of our lifestyles. Pritchard

encourages us to return to the virtues, specifically the four cardinal virtues of justice, wisdom, courage, and moderation though, surprisingly, in Pritchard's hands these virtues seem neither informed by or transformed by love. Evangelicals, I would say, ought to identify virtues more like Bouma-Prediger's, (although maybe not *too* much more).

Professor Margaret Parks Cowen, in responding to Calvo and Pritchard, drew our attention to another theme lying just beneath the surface of our conversations, that of the *intrinsic value* of nature. Cowen, like some others, believes that we need to recognize nature as having intrinsic value, and she identifies several "models of God" for achieving this recognition. Intrinsic value is a difficult topic, as anyone who has read Holmes Rolston knows. The presentations of Bouma-Prediger, Calvo, and Pritchard suggest that we can get what we need in the way of an appropriate care for creation with a God who does, in fact, transcend creation, and I think they are correct in this. Exactly what, in God's creation, is intrinsically valuable—is it individuals? Species? Ecosystems? Biodiversity itself—and what, exactly, the status of *intrinsically valuable* means within theistic and non-theistic theories is a problem for future conversations.

The two remaining papers take us to practice and away from theory, and in a quite telling way. Mark O'Gorman raises the important question of what, if we want our students to care better for our planet, they need more at college—curriculum or community? Which matters more, what goes on in the classroom or what goes on outside the classroom? He concludes his paper with the suggestion that today's students are already members of a pro-environmental community. He calls them "The Sustainers." What they need from us, he suggests, is "structure, discipline, focus, and content on the theories behind ethics and sustainability." And they need to see faculty and staff modeling this content.

John Casey suggests that at Warren Wilson, at any rate, the greening of the college was not the result of "cohesive institutional or collective 'thinking'—no recognized set of collective values or articulated world-view—that consciously

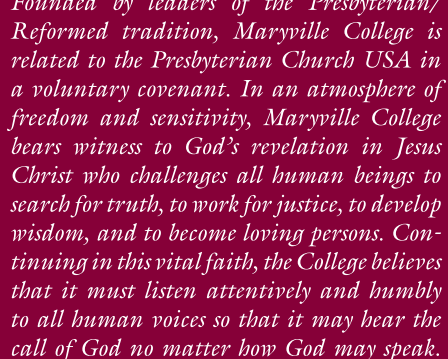
guided decisions.” Instead, charismatic leaders (like former Maryville College biology professor Randy Shields) dreamed dreams or saw visions and invited others to follow them. And others, often students, did follow and still do. John Casey, like Mark O’Gorman, worries that this reliance upon charismatic leadership is not enough. It is too individualistic and, as such, perhaps not sustainable. So Casey endorses his steering committee’s goal “to recognize and promote efforts to increase a deep, aesthetic, spiritually-based awareness of our connection to the environment among members of this and the larger community.” There will have to be a meeting of hearts *and* minds.

Such a meeting could occur at Warren Wilson and that is largely a gift of place and size and homogeneity, at least two of which, I suspect, are necessary for anything very interesting to come out of a quest for promoting “a deep, aesthetic, spiritually-based awareness of our connection to the environment.” In my experience, O’Gorman romanticizes this generation of students. Climate change and sustainability issues *are* on the radar of this generation of students, but having a good deal of experience with students at private colleges in the Midwest and, now, the South, it seems to me that they, like their parents, find the idea of sustainability more appealing in the abstract. Not so the Warren Wilson students and faculty who are there because of the beauty of the place and because of the college’s recent green history. I am at a school not unlike Warren Wilson in certain respects, but there is little homogeneity in the faculty and, hence, there would be a good deal of hostility of the faculty—from both our outspoken atheists as well as our evangelicals—about promoting “a deep, aesthetic spiritually-based awareness of our connection to the environment.” So much the worse for our students, perhaps. And perhaps atheists (and evangelicals) are right to ask Warren Wilson and others for an account of the faith that bases and undergirds the deep, aesthetic spiritual awareness of our connection to the environment.

What colleges less “green” can do is what Warren Wilson and Maryville have done—we can follow the lead of charismatic individuals who love the place where they live and who want to work to sustain the richness of that place. And we

can do what we did at the Maryville Symposium. We can try to find the language that captures our understanding and experience of this wonderful creation, and that recognizes the importance of attentiveness to the Creator. We can explore whether we can provide a coherent and plausible account of living well in this world under its current threats. We can tell a story to remind the communities of which we are members of the wonder and beauty and worth of this creation. There is much intriguing intellectual work to be done in environmental ethics, though I suspect that work consists largely of clarifying what we already believe to be true about living well rather than uncovering new truths.

There is much we can do in involving our students and colleagues in sensible practices and much we can do to expand our students' understanding of living well in this world. And though it may fall short of the Warren Wilson goal of promoting a deep, aesthetic, spiritually-based connection to the environment, we can, especially if we are lucky enough to be in a good and beautiful place, provide occasions and opportunities and encouragement to students to attend to their world, the place where they live. We can offer canoe trips or woodland walks on which they might happen upon a whorled pogonia, or an American woodcock. And if at first it is neither respect nor reverence they feel, then affection is still a good place to start. A real affection for a particular place may be a very good place to start, and, perhaps when all is said and done, not so bad a place to end up.



Founded by leaders of the Presbyterian/Reformed tradition, Maryville College is related to the Presbyterian Church USA in a voluntary covenant. In an atmosphere of freedom and sensitivity, Maryville College bears witness to God's revelation in Jesus Christ who challenges all human beings to search for truth, to work for justice, to develop wisdom, and to become loving persons. Continuing in this vital faith, the College believes that it must listen attentively and humbly to all human voices so that it may hear the call of God no matter how God may speak.

—from the College's Statement of Purpose

Maryville College
502 E. Lamar Alexander Parkway
Maryville, Tennessee 37804
maryvillecollege.edu/symposium