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## Environmental Pulse in Academia

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# The Environmental Pulse in Academia

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by Delmar Vander Zee

## Building the Context and Concept

It's one o'clock in the afternoon. Come with me to a nearby river that drains the watershed of the northwestern part of Iowa. Close your eyes, I will lead you. . . . As we approach the site you will hear the sound of rustling autumn leaves, and soon the added sounds of running waters. It sounds like a nice place. (No we won't stay long enough for a picnic.) Now, take off your shoes; this is holy ground. And, roll up your pants—up to your knees is enough. We are going to wade in, so hold hands. When you are about knee deep, stop and open your eyes. Now ask these questions: Can you see your

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feet? Why not? Should you be able to? Does it make a difference? What will you tell your grandchildren?

After the field trip you will go several different ways. Some to a PTA meeting, others to a family meal, some to conduct school board meetings or attend a city or a church council meeting, a few to go back to work. Still others go to class or study for tomorrow. A few return home to do yard work. All will ponder the questions asked at the river, and begin to wonder, "Why do we have education?"

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We have just passed through a summer of unprecedented flooding in the heartland. The muddy flood-waters of all heartland rivers that flowed the summer of 1993 were in part the erosive and sedimentary legacy of the pseudosuccess of John Deere, Cyrus McCormick, H. A. Wallace, and N. Bourlog.<sup>1</sup> But WHY do pictures of black waters not evoke the same social response as pictures of starving black African children with distended bellies? Is it because we do not understand that civilization is in fact built on 6-8 inches of topsoil? Is it because we lack soil literacy as a total society? Does it strike you as incongruous that we learn about civilizations in college core courses but evidently spend very little, if any, time devoted to the soils which support them? Does our ignorance of soils cause their rapid disappearance? Does our formal education not show the long-term effects of farming methods?<sup>2</sup>

Now think a bit more expansively. The *environment* has become not only a household word but a word that conjures up images of many things: the habitat for all living creatures, the focus of a new spirituality, what must be preserved for the future,

what must be ignored or worked around if there is to be a future. These are a few examples from across the spectrum of ideas and worldviews that connect to this word *environment*.

As we probe the connections of *environment* to the academy, we must define it precisely.

First of all, environment is not ecology. Ecology is a formal scientific study of the presence and abundance of living organisms in communities and ecosystems. It is an integrative science and seeks to know the inter-relationships that pertain in the web of life. The many statements of doing something "for the ecology" or doing something to protect "the ecology" reveals a misunderstanding or lack of literacy in this general area. One may do many things to protect, or preserve, or care for the environment or for a given ecosystem; but, if that is meant, then proper terminology should be used.

With this caveat let us pursue what is meant by and/or included in the concept "environment." Is this another discipline that is emerging for attention, another chapter or volume in the encyclopedia to be dealt with in the academy? Is this a facet of something else, perhaps economics? Is this another political boil seeking salving, like feminism, racism, poverty, animal rights? Is it just another issue that can be taken or left, depending on time, interest, student population, market pressures. . . maybe in vogue for a few years, but an issue that will fade when new issues emerge, like the opening of the iron curtain, or violence in the streets? Is it a technical problem requiring adjustments within the present system, or maybe some new products, efficiencies, or new property laws that will break this fever called environmentalism?

Let me expand the discussion by asking more questions: Do we see the environment merely as a long laundry list of problem areas: pollution of \_\_\_\_\_, depletions of \_\_\_\_\_, displacement of \_\_\_\_\_, loss or degradation of \_\_\_\_\_, extinction of \_\_\_\_\_. Such long lists tend to be depressing and may foster cynicism.

What is included in the concept "environment" is all and more than what is alluded to in these questions. Although often referred to as an "issue," "issue" doesn't comprehend the depth and breadth of what is included. The natural environment doesn't easily fit into familiar categories. It clearly crosses disciplinary bounds; it is inter-disciplinary,

trans- or even supra-disciplinary. That is why it is so difficult to get one's mental and physical hands on what is meant by *environment*.

As a society we are now being faced with many new cultural points of reckoning. (1) We are confronted with the unsettling awareness that for the first time in humankind's history, wild nature is now dying or is dead in most places.<sup>3</sup> We have domesticated almost all areas of the planet. (2) We are confronting the reality that the future—regardless of technical advances and humanistic hubris—may well be less fruitful than the present or past . . . the unthinkable realization that the Western (read American) dream may be turning

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*Wild nature is now dying or  
is dead in most places.*

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out to be a nightmare. The realization that there may not be more in the future, the realization that there might be limits to growth<sup>4</sup> does not rest easily with a culture that is predicated on the rightness of progress and materialism. (3) We are confronted with the realization that humans have exceeded the ecological/biological carrying capacity of the planet. This also doesn't square with anthropocentric frontierism, progressivism, and materialism. This doesn't square with the supermarket illusion of perpetual plenty. We must now come to grips with what it means to have been living in non-sustainable ways.<sup>5</sup> We must know and live within the limits of ecological carrying capacity. In this context, the rhetoric of the cornucopians is that of the carrying capacity of sardine cans, telephone booths and mausoleums.<sup>6</sup> (4) We are forced to learn about annoying creatures like furbish louseworts, snail darters, dusky seaside sparrows, spotted owls, and California gnatcatchers. And we aren't interested in them. After all, what good are these to us . . . ? Especially if they compete for our domestic tranquility and pursuit of happiness! (5) We are becoming increasingly aware that humans can no longer ignore our connection to creation. Because of this we are learning that some places don't even exist—such as this place called "away," where we threw everything that we did not want anymore. (6) We are challenged with the puzzling awareness that at no time in human history has there been more information and knowledge of how the world works, yet we are faced with deepening crises

of things dis-integrating in the four spheres— atmosphere, lithosphere, hydrosphere, and biosphere (air, soil, water toxification and degradation, and species and habitat loss). How is this possible? (7) We are confronted with the unsettling and sobering awareness that our gods are failing us.<sup>7</sup> Even our favorite institutions do not seem to have what it takes to support us materially or spiritually in the future.

But, you may be thinking, have I not skipped something? Were we not probing the definition of a concept? Just what is environment? My series of questions and subsequent statements about the cultural psyche were intended to be evocative—to call forth a deep understanding. Is not the environment that complex of what all creatures call their home? Their habitat. Source and context of fruitfulness. The raw hard stuff of the lithosphere. The soft ethereal stuff of the atmosphere. The wet stuff of the hydrosphere. The lively stuff of protoplasm and biosphere. And all the interactions, cycles, food webs, feedback loops, feedforward loops, limits, laws, love and grace that the Creator first said was “very good.” (I believe the Hebrew is something like SADEK—which means functional and intended integrity. It works and WOW, how does it ever work! Adam, look at this! Let’s take tomorrow off and marvel at this creation.)

When humans were fewer in numbers and technically less powerful, and more local in the impact of their consumption, the environment was taken for granted. Yes, taken as granted, that is, the gift was taken without thanks.<sup>8</sup>

But, now, hard as it is to admit, we know that there are limits. There is a limit to topsoil. There is a limit to fossil fuels. There are limits to the chemical reactions in the upper atmosphere. And fundamental to this realization is that the limits are not bureaucratically imposed, but the limits are first of all part of the created order. The lithosphere, atmosphere, hydrosphere, and biosphere are limited. Oh, there may be political, economic, and scientific argument about the details, and much boasting that we can spend or educate or technicate our way out, but deep down there is a sobering fear. As Pogo said, “We have met the enemy and he is us.”

### The Transition

But in the cultural grogginess of awaking from our plundering materialistic orgy, we hope our

dawning realizations are not true, so we go into a state of denial, or we blame environmentalists for spoiling the party (sort of like the “stoned” stoning the prophets).

Well, whose job in culture is it to speak for the environment? Who speaks for the trees? Who speaks for the waters? Who speaks for the soil? Who speaks for the microbes? Who speaks for what should be the freely shared gifts of the creation? Whose job is it to ensure that there is sufficient wildness to support our increasing domesticity? Whose job is it to speak for fruitfulness in creation? Whose job is it to determine if it makes ecological and biological and pedological and meteorological sense to displace resources to satisfy the needs and wants of the wealthy in the northern hemisphere? Whose job is it to ensure that there is “tak” or thanks,<sup>9</sup> so that the free gifts of the creation are not taken for granted? That we learn to live within the limits of the created order, each generation?

What does a doctrine of creation have to do with this? What does calling, task, and culture have to do with this? What does caring discipleship have to do with this?

### Responses Evident in Society and the Modern Educational-Academic Scene

Since Earth Day-1, 1970, some very important changes have happened in society: (1) positive changes in public policy (Environmental Protection Agency, Endangered Species Act, Clean Air Acts, Groundwater Protection Acts, chlorofluorocarbon legislation), and some negative changes (pollution vouchers); (2) positive changes in technology (better auto mpg, better insulation, bottle bills and recycling, non-phosphate detergents); (3) emergence and growth of many grass-roots advocacy groups (Natural Resource Defense Council, Sierra Club Legal Defense Fund, The Nature Conservancy, and dozens of sustainable alternative agriculture groups whose agendas are beginning to be mainlined by state landgrant colleges); (4) new subdisciplines in ecology (Restoration Ecology, Conservation Biology, Landscape Ecology); (5) national and international conventions meeting to deal with global connections. Witness the recent Earth Summit at Rio, attended by the US in large part because of the persistence of the Chief US-UN negotiator, Susan Drake, who as a committed Christian worked patiently and prayerfully with the con-

fidence that US involvement—albeit reluctantly by the Bush-Quayle administration—was the right thing;<sup>10</sup> (6) state requirements for some states are now requiring a certain level of environmental literacy for K-12 students—an innovation called an intrusion of New Age thinking by the religious right for whom “this world is not my home.”

Where in all this is education? Where is higher education? A contemporary author, Bowers, comments on the cultural-ecological crisis by noting that there is a special long-term role for educational institutions. Whereas many problems may need immediate solutions that require changes in public policy and technology (dumping of toxic wastes, deforestation, depleting fisheries, and losing topsoil and groundwater), education as it influences thinking, worldviews and culture in general, is suited to impact the long term. As Bowers puts it, “There is no single cause for any aspect of the ecological/cultural crisis, but there are complex and interconnected cultural patterns, beliefs, and values that collectively help to introduce perturbations into ecosystems, causing them to go into decline.” He goes on to say that “the long-term aspects of learning to live in ecological balance also require giving attention to those aspects of culture that will have an influence on the taken-for-granted beliefs, values, and social practices that people will hold in the future.”<sup>11</sup> Is it not the task of education to teach the linkages so that communal accountability and responsibility are possible?

Now closer to home. Whether we understand this to be another issue, a new discipline, or a cultural crisis will determine how we respond in academia. These are some responses evident in colleges of the Christian College Coalition (CCC)<sup>12</sup> and in other universities:

1. refer to it as an issue to be dealt with in a few appropriate classes or as a subset of global awareness,<sup>13</sup>
2. add a course or two in some department: Man and Environment, for example,
3. promote a recycling or environment club to advocate stewardship on campus,
4. develop an inter-disciplinary program with some new and some existing courses,
5. associate with others and pool resources to study earthkeeping—as many do at Au Sable Institute,<sup>14</sup>
6. develop a new department with many new

courses which focus on the many facets and interconnections of the environment.

But in each and all of the above, something seems lacking. We need to be aware that we are dealing with a multifaceted cultural and belief crisis when viewing the environment. Certainly to see this as another issue is insufficient, too narrow and limited in scope. Even a few courses or a special program may be missing the larger educational need.

### The Broader Agenda

So, is academia part of the solution or part of the problem?<sup>15</sup> What has the educational establishment had to offer in the last several decades, since

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*Adam, look at this!  
Let's take tomorrow off  
and marvel at this creation.*

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environmental awareness has become a part of our cultural psyche? What do the educational establishment and its spokespeople have to say? Are they saying anything to the cultural crisis involving the environment?

In Bowers' analysis, the conservative educational establishment (represented by E.D. Hirsch, Jr., Mortimer J. Adler, William J. Bennett, and Allan Bloom) advocates for educational reform that emphasizes the basics and the classics. They believe that our current cultural malaise lies in society being captured by the liberal agendas of freedom, individualism, progress, relevance, empowerment, etc.<sup>16</sup> But, continues Bowers, “Their silence on the ecological crisis, like silences encountered among colleagues within the academic community, is not easily understandable—particularly among people whose conceptual style is to frame issues in terms of a long-term perspective.”

Bowers finds no more hope in the writings and advocacy of the liberal side of educational theorists.

But the question that must be asked here is why leading spokespeople for the emancipatory tradition in educational liberalism—Paula Freire, Ira Shor, Henry Giroux, Maxine Greene—have been so at ease with those aspects of modernism that are the greatest threat to the rest of the biotic community. It is the technocratic liberals, using an industrial model as the metaphor for understanding both the purposes and processes of education, who could be expected to misread the signs that

suggest that the immediate years ahead will be quite different from what is suggested in the image of the "Information Age". . . . But why have the educational theorists who represents themselves as role models living on the cultural edge of progressive change been totally silent [on the environment]?<sup>17</sup>

Yet the technocratic educators who largely dominate the way of thinking within the mainstream of public education, and who thus exert the greatest influence on educational reform, have never acknowledged in their articles and books that there is such a thing as a natural environment. It is difficult to believe that in their personal lives they have had fundamentally different environmental experiences from those that led Leopold, Carson, and Mowat to alert a culturally sedated public: smog, polluted water, soil erosion, clear-cut hillsides, and declining animal, bird and fish populations are difficult to ignore, even for academics.<sup>18</sup>

The different streams of educational liberalism share the assumption that progress is either by maximizing the freedom of the individual (the emancipating and neo-romantic tradition), by increasing the ability to unite the process of participatory decision making with the scientific method of problem solving (the Deweyan tradition), or by using the techniques of scientific management and behavioral reinforcement to improve the individual's behavior (the technicist tradition). But it is a view of progress that is based on the myth of an anthropocentric universe. How humans might live lightly within the web of the biotic community is still not part of their vision<sup>19</sup>.

In a recent *Christian Educator's Journal*<sup>20</sup> Fenema lists dozens of current educational organizing themes, the so-called buzzwords that are supposed to capture future trends in education. The list goes from academic support system to zero-based budgeting. In the subtitle he asks, "What key word is missing?" The key missing word is "God," which is not surprising. Several other key words are missing: environment, sustainability, stewardship, life support system, bio-region, limits. That these concepts are missing is surprising. . . . but in a sense not. We are so cut off and isolated from the real world that most people never consider anything other than their immediate domestic, economic, and entertainment "needs." And where and how these needs/wants are satisfied have no feedback cues to the real world limits of associated resources. We are effectively shielded from awareness of those limits.

In contrast to the poles of conservatism and liberalism in education, a notable literature and set of writers might contribute to an environmentally responsible conservatism: L. Wilkinson, W. Granberg-Michaelson, Aldo Leopold, Wendell Berry, Wes Jackson, E.F. Schumacher, Cal De Witt, Herman Daly and John Cobb, Bob Goudzwaard. Although not specifically intending to speak to academia and its curricula in a formal analytic sense, these writers offer much wisdom which contributes to a renewed sense of our proper place in the larger community of life. Therefore, if these assessments by Bowers and others have validity, and if education influences culture, and for us—if our role is to foster discipleship and caring for the creation—then there are some implications for academia's response, academia's structure, academia's focus and overall goals that we must consider. What does "seek ye first the kingdom" mean for Christian education in the context of environmental stewardship and earthkeeping<sup>21</sup>?

### Some Specific Implications

If the environment is not just another discipline, not a technical problem, not even a social issue, but if it is supra-disciplinary; and if the biosphere is disintegrating, reflecting a cultural crisis, then the response must be designed to meet such a cultural crisis. This would suggest responses at many levels in the academy:

A. World view considerations: (1) Are humans stewards of creation or merely agents of culture and technology? (2) Is nature a resource to be exploited or is nature to be seen as a source of fruitfulness to be blessed by our care? (3) Is humankind in and a part of the creation, or are we pitted against it? These questions get at worldview issues that affect how humankind sees itself and treats the environment. These appropriately need addressing in many disciplines.

B. Re-evaluating courses, syllabi, course content to expose anthropocentrism, humanistic hubris; to challenge cultural assumptions; and recognize the cultural-ladenness of language. For example, what does "our" world, state, natural resources mean? What does "raw material" mean? What does "develop" mean?

C. Courses and majors will have to be rethreaded, redesigned so as to be positive and constructive in their earthkeeping content. This, too, is not the do-

main of one particular discipline, but of many: history, language, philosophy, theology, literature, biology, chemistry, economics, and perhaps others.

This rethreading and redesigning of courses should provide insight into technical areas where specific healing is needed. This does not mean simply technical in a mechanical or engineering sense, but social patterns, public policy, market strategy, and even worship liturgies and hymnody. The caring economy and culture described by Goudzwaard and deLange<sup>22</sup> will need new constructs in all these areas and more.

To accomplish all this we will have to reconsider the proper allocation of an institution's resources to focus on what is most important in terms of putting the kingdom first in the world as we know it today.

D. The core curriculum (GER) must be shaped by environmental stewardship and earthkeeping themes.

1. We must design a curriculum to combat reductionism and disconnectedness in modern culture and in the treatment of the environment. Therefore, to begin to remedy this, we must do more than talk about reductionism and holism. We can show how the created order connects by implementing writing, speaking, and thinking across the core curriculum with content that examines stewardship and what it means to be image-bearers of God. This may then become a model for the wider curriculum. This could be a minimum and exemplary first step.

2. We must change our way of thinking: thinking patterns must be challenged to understand web or synergistic problems, thinking in terms of whole systems instead of reduced parts, understanding exponential processes as well as additive and linear processes. This could connect meaningfully to math and quantitative skills, also.

3. We have to analyze and deal with the culture's willful ignorance of limits.

E. We must establish an interdisciplinary department of environmental studies that can give direction to the core, to the course rethreading task, and to a major program of environmental studies which should be second-to-none by the turn of the century.

This assumes staffing and a budget and a recognized place in the campus academic community. It is not prudent to expect that this agenda for change be done on the side, by people who are ful-

ly accountable to other departments at the same time.

F. We must enable all prospective teachers to be teacher-stewards, and competent as servants to teach the little ones, the next generation, what it means to be caretakers of all of God's creatures, to live within limits in sustainable ways. (After all, we want to avoid millstone necklaces—which is what we deserve if we lead these little ones astray!)

G. We must refocus the long range planning and college development philosophy and praxis. We should design our campus and all lands under our domain so that we give incarnate witness to the stewardly earthkeeping worldview which we wish to confess.

This may seem like a tall order; yes, there is something for everyone. But the creation expects much of those who are adopted as co-heirs. The creation awaits the coming of the sons and daughters of God;<sup>23</sup> co-heirs who with the second Adam bring cohesion<sup>24</sup> into this dis-integrating world, a world whose capacity for fruitfulness is daily being diminished. What greater witness could there be than to have it said of our students, "Here come the children of God; blessings will follow for all God's creatures because of them!" I believe that is what Image Bearing means.

And, oh? When did we see you hungry or naked or in peril? When we were standing knee deep in the muddy Sioux River.

## END NOTES

- 1 These were key persons in the mechanization and green revolution in agriculture, both of which in part contribute to increased exposure of soil to erosion in monocultural settings.
- 2 For a powerful essay on the connection between topsoil and life, as seen in India, see "A Handful of Mud" by P.W. Brand in *Tending the Garden, Essays on the Gospel and the Earth*, W. Granberg-Michaelson, ed., (Eerdmans, 1987).
- 3 For a book length treatise of this idea, see B. McKibben, *The End of Nature* (Anchor Books, 1989).
- 4 The idea of a planet with limits is fundamental to understanding biological and physical systems; it is fundamental in the environmental movement as well. For an economic view of this see H.E. Daly, *Steady-State Economics*, (W.H. Freeman & Co., 1977) and H.E. Daly and John B. Cobb, Jr., *For the Common Good: Redirecting the Economy Toward Community, The Environment and a Sustainable Future* (Beacon Press, Boston, 1989). For discussions of normative living within the knowledge of limits, see L. Wilkinson, ed., *Earthkeeping in the 90s* (Eerdmans, 1991).

- 5 "Essentially sustainable" means that the system that supports us should not be degraded in any way. The signposts of this are not easily determined, especially in the earth life support system where there may be time lags and great spatial separation between source and sink. But the principle is apt.
- 6 The cornucopian worldview claims that there are vast spaces to be filled by people and that resources are nowhere near being depleted, but if so, technology will fill the gap. J. Simon is an oft-cited spokesman for this position. However, the position fails to consider the whole support system. You can cram a lot of people into the open spaces of the Great Plains of North America just like you can cram a lot of people in telephone booths or mausoleums—but they cannot live there. Their support has to come from somewhere. . . . and then there are also the other kinds which need a place to be fruitful.
- 7 See Bob Goudzwaard, *Idols of Our Time* (Intervarsity and Dordt Press, 1981).
- 8 See W. Brueggemann, *The Land* (Fortress, 1977), especially Chapter 4 where the OT theme of land as gift is discussed. Also, open and vulnerable thankfulness, known as 'tak' in Danish, is presented as an essential ingredient in a land ethic by C.D. Freudenberger, *Global Dust Bowl* (Augsburg, 1990) 13.
- 9 Freudenberger, *Global Dust Bowl*, 13.
- 10 Personal communication, summer, 1992, via teleconference at Au Sable Institute Integration Day.
- 11 C.A. Bowers, *Education, Cultural Myths, and the Ecological Crisis* (SUNY Press, 1993) 19-20.
- 12 Based on a review of CCC colleges associated with Au Sable Institute of Environmental Studies, by author.
- 13 As cited in the recent document, "Global/Cross-Cultural Education," a Dordt College Task Force report.
- 14 Au Sable Institute of Environmental Studies is an independent Christian Institute serving staff and students from several colleges of the CCC. For a description of how this program works, see C.B. DeWitt, "Integration in the Life and Mission of the Christian College," *Faculty Dialogue* 19 (1993) 129-133.
- 15 It is instructive to note the argument usually given as to why America has to improve its educational system vis-a-vis the rest of the world. The reason is usually cast in terms of being able to be "first economically and technologically." The social and environmental costs of this are not alluded to, however, in this reasoning.
- 16 Bowers, 36.
- 17 Bowers, 78.
- 18 Bowers, 79.
- 19 Bowers, 156-7.
- 20 Jack Fennema, "Educational Terminology for the 21st Century," *Christian Educator's Journal* 33(1):25, 1993.
- 21 This theme and others are expanded in C.B. DeWitt, "Christian Colleges at an Ecological Turning Point," *Faculty Dialogue* 19 (1992) 43-58.
- 22 B. Goudzwaard, and H. de Lange, *Beyond Poverty and Wealth: Toward an Economy of Care*, (Transl., M. Vander Vennen), (prepublication draft); and public address by Goudzwaard at Dordt College, October, 1993.
- 23 Cf. Romans 8:19-21.
- 24 Cf. I Corinthians 15:20-28 and Colossians 1:15-20.