**Subcommittee on Sustainability**

**INTRODUCTION**

 The Strategic Planning Committee constituted a Subcommittee on Sustainability (SOS) through the academic year 1998-99. During the 1998 spring term, SOS members included Steve Boyce, Tom Boyd, Carolyn Orr, Mike Rivage-Seul (Chair), Lee Roecker, Pat Shugars, Jim Strand, Ralph Thompson and Lynn Wood. The subcommittee met weekly in fourteen ninety-minute sessions from February 17th through May 18th. For the 1998 fall term, withMike Rivage-Seul on sabbatical leave, fournew members have joined SOS: Barbara Wade, Mike Panciera, Judith Weckman**,** and Sean Clark. The group resumed weekly ninety-minute sessions beginning September 15.

 The subcommittee’s charge was (1) to educate itself about the nature of sustainability issues as related to the mission, commitments, strategic plan, curriculum and programs of Berea College and similar institutions; (2) to identify the benefits and challenges of implementing at Berea an interdisciplinary major focused on sustainability through environmental studies; (3) to explore the role and value of the College farms and forests in Berea's General Education Program, in professional development, in relation to the College's role in the local and regional community (including their ecosystems), and in all aspects of Berea’s curricular, co-curricular, and "implicit curricular" components; (4) to identify College-wide opportunities for learning and constructive practical action related to sustainability matters; and (5) to advise Berea’s Department of Agriculture and Natural Resources in efforts to revise and reshape its program.

 In accepting its commission, the SOS sought to understand and respond to the following portion of the second "common learning goal" identified in *Being and Becoming:*

We seek to understand the workings of our natural environment and the consequences of human interventions. Such learning requires students to study the sciences as disciplines that take different approaches to understanding our natural world as well as to study other disciplines that consider the relationship between humans and their natural habitat. We all should seek to understand the character and urgency of local, regional, and global issues involving environmental degradation, non-sustainable growth economics, overpopulation, and inequities in the allocation of natural resources. This goal will require of us all an attention to the natural resources for which Berea College provides stewardship. We should prepare ourselves and our students to be leaders in providing solutions for local environmental issues and problems. As we seek to understand our natural world, we must attempt to comprehend the impact of humans and their technological and scientific inventions upon it (page 32).

 The subcommittee began its work by exploring the multi-faceted problem described in *Being and Becoming*. Its members were building on a foundation set by the Berea Agricultural Summit convened at the end of the summer, 1997. In following up, SOS members examined various views and dimensions of sustainability. The subcommittee reviewed curricular approaches to teaching environmental and ecological concepts and sustainability issues which had been adopted in Berea’s benchmark and other institutions. Focus groups were convened to provide input from the larger College community. Among many other sources, SOS members read and discussed David Orr’s *Ecological Literacy* and *Earth in Mind* .

 One of the guests at the Agriculture Summit, Dean Freudenberger, characterized what he called "the problem" in terms that reflect recurrent themes SOS members encountered in their readings and discussions:

. . . knowledgeable leadership everywhere in the world face the realization, particularly after the Earth Summit gathering of the United Nations at Rio de Janeiro, that we have inherited an unsustainable social, economic, technological and industrial order. The health of the earth itself is in question. Agriculture and natural resource issues are central to this historically unprecedented reality. The problem challenges our imaginations, our self-understanding of how we fit into the design of creation, our value constructs, and our sense of moral obligation with reference to future generations of life.

 Trend data and many thoughtful, informed commentators suggest that the concerns underlying Fruedenberger's "problem" and the cited learning goal from *Being and Becoming* cannot be easily dismissed. In his *Ecology Literacy*, for example, David Orr observes:

If today is a typical day on planet earth, humans will add fifteen million tons of carbon to the atmosphere, destroy 115 square miles of tropical rain forest, create seventy-two square miles of desert, eliminate between forty to one hundred species, erode seventy-one million tons of topsoil, add twenty-seven hundred tons of CFCs to the stratosphere, and increase their population by 263,000. Yesterday, today, and tomorrow. By year's end the total numbers will be staggering: an area of tropical rain forest the size of the state of Kansas lost; seven to ten billion tons of carbon added to the atmosphere; a total population increase of ninety million (page 3).

And further:

In historical perspective, the crisis of sustainability appeared with unprecedented speed. Very little before the 1960s prepared us to understand the dynamics of complex, interactive systems and the force of exponential growth. . . . The crisis is unique in its range and scope including energy, resource use, climate, waste management, technology, cities, agriculture, water, biological resilience, international security, politics, and humans values. Above all it is a crisis of spirit and spiritual resources (page 4).

 Following the UN Earth Summit in Rio, the World Scientists' Warning to Humanity, signed by 1700 scientists, including 102 Nobel laureates states: "We the undersigned, senior members of the world's scientific community, hereby warn all humanity of what lies ahead. A great change in our stewardship of the earth and the life on it is required, if vast human misery is to be avoided and our global home on this planet is not to be irretrievable mutilated."

 Given the force of these warnings about matters fundamental to all life, SOS members conclude that the Berea College faculty and staff have a moral imperative to educate ourselves and our students about the "the problem" - its nature, its possible validity and implications as well as opportunities for constructive involvement through individual lifestyle, educational, and career choices and, at the institutional level, alignment of policies, practices, and learning goals with a deeper understanding of sustainability issues. In a world rich with good possibilities alongside what many see as unprecedented peril, the subcommittee took as its work thinking about ways in which Berea College should respond. Dean Freudenberger urged this work and suggested a guiding vision which SOS members have found useful in seeking to elaborate the opportunities and challenges afforded by Berea’s own unique history, mission and resources:

The vision that has finally taken root (born through thirty years of both ecumenical as well as United Nations discussions and which was clearly articulated at Rio de Janeiro) is the idea of sustainability. Native Americans articulated the idea long ago in describing their “seventh generation” spirituality and moral code. We understand this today as involving both inter-species justice and transgenerational justice. We can hardly fathom the challenge of this normative thought because almost everything that we in our modern world do results, over time, in deterioration. So, for the College, and for its several departments, the question can be raised: How will we proceed in addressing this vision?

**THE MEANING OF SUSTAINABILITY**

 There is danger here that "sustainability" may be understood as an ideological term signaling a particular agenda or way of thinking about causal links and solutions rather than identifying for inquiry fundamental questions about the viability of life. Indeed, even in the cited language of the second common learning goal confusion of this sort is suggested: "We seek to understand . . . the character and urgency of local, regional, and global issues involving environmental degradation, non-sustainable growth economics, overpopulation, and inequities in the allocation of natural resources." As an educational institutionwe must avoid conclusions disguised as premises, as suggested by use of terms like "overpopulation" and "non-sustainable growth economics" in describing the subject of inquiry - conclusions that some would regard as insufficiently examined and inappropriate points of beginning for an inquiry. Rather, emphasis should be placed on seeking understanding about one of the larger problems of our time in a way that advances the first of *Being and Becoming's* common learning goals: "We seek to develop mature and critical thinkers who also have the capacity for moral reflection and personal growth."

For this report, we will use the term "sustainability" to signal inquiry aimed at the following questions: How can present needs be met, if at all, without compromising the ability to meet future needs? What degree of urgency, if any, should be associated with the question at this particular point in history? What implications are there, if any, for individual and collective responsibility? There are, of course, many related questions involving social, economic, spiritual, scientific, and technological dimensions of this concern for what many see as an unprecedented planetary crisis. The terms "environmental" and "ecological" are closely related but too narrow in their common usage to adequately signal the breadth of the intended inquiry. Sustainability, as used by the SOS committee, refers tothe capacity of individuals, communities, and societies to coexist in a manner that maintains social justice, environmental integrity, and economic well-being today and for future generations. Sustainability questions encompass environmental inquiry, and interest in them arises in part from symptoms of environmental decline.Ecology, interpreted broadly enough to include spiritual, economic and political dimensions of human communities, might suffice; but in academic settings the term normally refers to a sub-specialty within biology. Although SOS members did not choose the subcommittee name, they find it apt and have chosen to include the term sustainability in the name of the program proposed later in this report.

**SUSTAINABILITY AND THE GREAT COMMITMENTS**

 Beyond any external imperatives, we find deep and compelling linkages between "the problem" and Berea's heritage and mission as expressed in the motto and the Great Commitments. Berea’s motto, “God has made of one blood all peoples of the earth” recalls the institution’s bedrock theological orientation as well as its abolitionist history and founding purpose. The school originated when abolitionist prophets discovered in the Judeo-Christian tradition an unmistakable mandate to form a community based on “a practical recognition of the brotherhood of man.” In 1855, this meant blacks and whites living together in a community of faith founded on a kind of brotherly and sisterly love (*philia*) that radically contradicted what was considered acceptable or feasible.

 As we approach another millennium pressured by a growing perception of global environmental and ecological crisis, we are led to consider widening our understanding of Berea’s founding purpose as captured in the motto to include recognition of environmental integrity as a necessary condition for communities of any kind, recognition that the context for *philia* is a community wider than the human one. The words on the Berea College seal suggest that direction. They associate God’s creative intention, not only with blood and people, but with the earth as well. What unites human beings, the motto says, is their divine origin, their common blood and a shared home on the planet. This third element - a shared earth - has passed almost unnoticed at Berea. Recognizing the earth dimension during this time of ecological concern might move our community not only to rethink Berea’s Great Commitments, but could also evoke reinterpretations which fundamentally challenge behaviors fostered by a consumer culture.

 The College motto, with its recognition of the earth as part of God's creative intention, suggests that institutional movement toward a sustainability orientation could be grounded in Berea's Christian Commitment; i.e., could be grounded in Christian belief, whatever particular form that belief might take. It is no accident, SOS members noted, that some of the most compelling analyses of sustainability come from the pens of theologians such as Thomas Berry, Rosemary Reuther, John Cobb, and Dean Freudenberger. In his book *Sustainability: Economics, Ecology and Justice,* Cobb notes a "profound shift" among Christian theologians in recent years regarding the role of nature: "Thirty years ago Christian theology was primarily anthropological. But a profound shift has come about since 1970, a shift to taking nature as a context of Christian theology. . . . At the present time almost all theologians acknowledge that some attention should be paid to the natural environment as well as human kind" (page 82). As a part of this shift, several Christian periodicals have taken stewardship of the environment as their exclusive focus or chosen to highlight it with dedicated issues or numerous articles. Written from a Judeo/Christian perspective, these articles have discussed Scriptural injunctions to care for the land and to share its resources as well as the writings of earlier Christians such as Saint Basil, Saint Francis, Thomas Aquinas, and Hildegard of Bingen who celebrated the creation as the embodiment of God's Word and revelation.

 The subcommittee welcomed the growing awareness of connections between Christianfaith and ecological concern across Berea's campus among Christian groups regardless of denominational and theological orientation. The topic of this fall's week-long Accent on Christian Faith, for example, was "How on Earth Are We Living: Faith and the Ecological Crisis." Also, as indicated in Steven C. Rockefeller and John C. Elder's book *Spirit and Nature: Why the Environment is a Religious Issue,* the environment is a serious concern within many religious traditions throughout the world. This concern for God's creation and the sacredness of life could well represent an ecumenical catalyst within the campus community helping to transcend divisions among Christians and to stimulate inclusive interfaith dialog.

 If Berea's Christian Commitment calls attention to planet-wide concerns and values, the first and seventh of Berea's Great Commitments direct attention more locally. Together the commitments to the youth and region of Appalachia highlight a unique bioregion and assert the significance of situating educational experience in a particular "place," a significance reaffirmed in the recent strategic planning process: "Berea College will integrate service to the region into our curricular and co-curricular programs so that serving the region is interwoven with our educational mission." (*Being and Becoming*, page 36) This centrality of "place" for the College along with Appalachia's unique history provide compelling linkages to the natural, social, and economic dimensions of sustainability.

 The richness and complexity of Appalachian history and contemporary reality provide many opportunities for cultivating understanding of what the framers of Berea's first constitution might have called ecological, economic and social "wrong practice." In 1962 Stuart Udall reflected on the causes and lingering effects:

Life on the Cumberland Plateau today is an anachronism, a remnant of an ugly chapter in our history. In the nineteenth century, we recklessly plundered our continent, raiding it for beaver, for buffalo, for timber, for gold, for grass, laying waste to forests and hillsides and river valleys, without regard for the needs of future generations.

This regional heritage began with the destructive farming practices of the earliest European settlers and accelerated when the railroads, coal companies, and timber operations entered the mountains in the 19th century. In the absence of effective federal and state regulation, copper mines in eastern Tennessee turned parts of two counties into desert, and strip mining in four states expanded rapidly during World War II to meet government production demands. More recently the Tennessee Valley Authority has ignored EPA guidelines on nuclear waste disposal in its push to produce increasing amounts of energy. With similar dynamics at work in many parts of the world, these Appalachian experiences can serve to highlight the significance and difficulty of achieving economic development based upon the principles of ecological integrity and human well-being. Berea's "place" is well suited to fostering examination of and involvement in these principles.

 Also compelling in this connection are assertions that one key to both good education and sustainable development is respectful attention to the unique and richly textured detail of particular communities and geographic regions. At the Agricultural Summit in August, 1997, Wendell Berry challenged Berea to take seriously the educational significance of "place":

I hope you are as happy as I am to know that our word focus comes from the very same word in Latin, meaning fireplace, hearth, or home. A school should make its focus - it home community or region - the cause and measure of its work. Wes Jackson [founder of the Land Institute in Salina, Kansas] has been trying to get us to think of "education for homecoming" rather than mobility. I know of no better way to keep facts and ideas from becoming inert in their categories and passive in the mind. Why should students not be asked to consider the economic and cultural foundations of their own lives? Why should they not be asked to consider the questions - what has happened, what is happening, what might or ought to happen here? - and then to find the answers are in literature but not only in literature, in history but not only in history, in farming and forestry but not only in farming and forestry, in chemistry but not only in chemistry, and so on?

Berea College is particularly well located physically and intellectually to consider these questions and turn them toward inquiry into local and regional sustainable development. The College has long been involved with preservation and celebration of Appalachian culture with its unique foods, crafts, music, customs and language. Berea’s forests, watersheds and reservoirs, its farms, and the John B. Stephenson Memorial Forest & State Nature Preserve support a wealth of biodiversity and provide rich educational resources for examining the nature and significance of local and regional ecosystems. Consideration of such issues as regional food security and sustainable resource management can reveal good possibilities for constructive action while raising many of the issues which on the larger scale of global warming, rain forest destruction, and international debt can seem paralyzing. Bereans have many opportunities for direct involvement in sustainable strategies. Energy conservation, waste reduction, and the shortening of food supply lines are examples of areas where the College can begin to establish an implicit curriculum which teaches important sustainability lessons. Investigation on the College farms into forage-based ruminant agriculture, an alternative to the dominant grain-based model, serves as another example of the many possible "elegant solutions for unique places" which will be keys to healthy communities.

 One other of Berea's Great Commitments deserves special consideration in this context: to encourage in all members of the community a way of life characterized by plain living. Certainly there are rich connections to be found between the concepts of sustainability and plain living and, within those connections, a profound and timely challenge for our educational program. David Orr makes the case in *Ecological Literacy* that although the time and expense of a college education have most often been justified in terms of increased lifetime earnings, it ". . .is somewhat rarer for education to be extolled on the grounds that it reduces the graduates' impact on the biosphere, or because it hones their skills in the art of living simply" (page 150). Orr speculates that college graduates may in fact create more negative environmental effects for the planet than "those less encumbered."

 In its March 1993 report, the Committee to Review the Commitments also linked the meaning and contemporary significance of plain living to the needs of the biosphere and a rejection of consumerism:

Plain living is the rejection of artificially created wants; the ability to give up luxuries and to remove clutter from our lives; conservation of our personal and the earth's resources; and leading a life of quality characterized by contemplation, spirituality, and Christian stewardship. . . . Not all choices made in life are of equal value. A life characterized by the acquisition of expensive things and expensive experiences for personal pleasure lacks the inherent satisfactions of a life characterized by emphasis on other values.

Profligate exploitation of natural resources around the globe, partly fueled by the American consumer culture, is not good for the earth. People electing "plain living" not only derive the individual benefits of a balanced, responsible life, but also produce the collective good of a less burdened environment (page 10).

 How then is the Plain Living Commitment to be carried into the future? The close relationship between "plain living" and "sustainable living" suggests College-wide attention to sustainability as a part of any institutional response. What meaning and urgency would we attach to "plain living" given that per capita natural resource consumption in the United States is twenty-eight times that in Third World countries? What understandings of justice can be brought to such consumption gaps - global, national, regional, and local - given the reality of finite resources alongside evidence of environmental and ecological crisis? In an open letter to Oberlin College, David Orr argues for the need "to think more carefully about what our students need to know to live lives of service at a time when ecological stability can no longer be taken for granted." How can we work toward a Berea "education of high quality" that provides both a knowledge base and a model for sustainable living - economically, socially, ecologically and spiritually - rather than serving as a ticket to hyper-consumption? Such questions as these suggest the thoughtful pursuit of plain living as a likely outcome of inquiry aimed at understanding how present needs can be defined and addressed without compromising the ability of future generations to meet their needs.

 These thoughts about plain living, consumerism, and the purposes of a Berea education return attention full circle to the centrality of the Christian ethic at Berea and its linkage to sustainability. In considering the meaning of the phrase from the College Constitution "to promote the cause of Christ," the Long Range Planning Committee of 1985-87 made the following observation in their *Report on the Future of Berea College*:

This academic mission, however, does not exhaust the intentions of Berea's founders. . . . [T]he purpose of these extraordinary individuals was not simply to provide education for those otherwise unable to afford it so that Berea graduates might join the American mainstream. Nor was it simply to eliminate the institution of slavery. Rather it was to reform society as a whole by using education to undercut one of its key economic institutions. In this, Berea's institutional forebears adopted the stance described by H. Richard Niebuhr as that of "Christ the Transformer of Culture.". . . [T]hey recognized that the submission to the sovereignty of God inevitably set them at odds with the dominant culture, characterized as it was by greed, ... , slavery, sexism, and class division (page 34).

In commenting on this passage, the Committee to Review the Commitments said in their March 1993 report: "Believing that educated persons will go out to change the world, we reaffirm the College's historical goal 'to reform society as a whole' as a valid contemporary goal. In this sense, the phrase 'to promote the cause of Christ' certainly has meaning for us today" (page 6). From the perspective of these times, we would argue that inquiry aimed at questions surrounding sustainability reveals a world in need of leadership from "educated persons" who work to "reform society as a whole" as well as from individuals andcommunities which model the engagement of sustainable living in creative and responsible ways.

 In this section we have tried to demonstrate that the concept of sustainable living arises in a compelling way from the Great Commitments and the College motto. We often think of these guideposts in terms of the past and present. We are called to remember injustices and to stand up for the equality and dignity of all our brothers and sisters. However, we are also called to concern for brothers and sisters of future generations whose well-being, like our own, is inextricably linked to that of all of nature. Just as it was wrong for slave holders to profit at the expense of slaves, it would be wrong now for us to live at the expense of those who will follow. As we look to the future through the lens of Berea's heritage and mission, our actions should bring hope rather than despair to future generations.

**RESOURCES AND OPPORTUNITIES FOR FOCUS ON SUSTAINABILITY**

 If the Great Commitments and College motto are to be understoodalong the lines suggested above, as SOS members believe they should, then what are the implications of taking such understandings seriously? Where can we begin?

 Many responses suggest themselves. Not surprisingly, given that Berea is a college, most center on two questions about learning and teaching: What should we be learning? What and how should we be teaching? The "we" in both questions should be understood broadly to include faculty, staff, students and selected persons outside the College, and the place of learning/teaching should be understood to include the extended classroom (e.g., settings for international, internship or service-learning activities) and to go beyond it to such "places" as the labor program and the implicit curriculum, where institutional behavior "teaches" the reality of College values and priorities.

 As SOS members considered these questions in light of what has been called the "sustainability crisis," we became aware of resources and opportunities of several kinds that could help shape and sustain College response. A crucial resource, for example, is the strong interest, both professional and personal, that many Berea faculty and students bring to sustainability issues and to Berea's associated responsibilities as an institution of higher education. Evidence of this interest can be seen in the many existing courses which address various economic, social, ecological, and spiritual dimensions of sustainability. The vibrancy of such organizations as Helping Earth and Learning (HEAL), the Progressive Students Group, The Student Environmental Action Coalition, and Students For Appalachia signals strong interest among students in matters linking social justice to environmental and ecological concern. Further evidence of student involvement is apparent in the priorities of recent Student Government Association leaders, in the prominent and constructive role of students on the Campus Environmental Policies Committee, and in the proposal of twelve independent majors since Fall Term 1997 with sustainability focus.

 Another resource, one very unusual for a small college with liberal arts foundation and outlook, is an Agriculture and Natural Resources (ANR) Department.Berea's ANR Department has recently committed itself to a long-term reorientation toward small-scale, sustainable agriculture for the Appalachian region and beyond. ANR also seeks to integrate its teaching program with the sciences and other liberal arts departments interested in taking up issues of sustainable food supply and sustainable resource management. This combination of ANR reorientation and interest in cross-disciplinary collaboration seems to SOS members a resource of considerable promise for reaching well beyond that single department in helping to create and maintain teaching-learning opportunities related to sustainability, ecology, and the environment. In addition, the many acres of farm and forest land owned by the College constitute invaluable resources not only for the Agriculture and Natural Resources Department, but for any College program or activity seeking to explore or address various aspects of Freudenberger's "problem." Programs such as General Education, Labor, Undergraduate Research and Creative Projects, as well as portions of the "implicit curriculum" related to regional and local food supply, economic development, energy use and conservation, and ecological health can all serve as good, renewable resources in this regard. We also see great promise in the flexibility of GSTR courses which encourage the tailoring of individual syllabi around themes that lend themselves to exploring various dimensions of sustainability. Finally, the moral capital generated by a tradition of courageous and insightful regional leadership, a gift from earlier generations of Bereans, is an additional resource that would enhance the viability of any contemporary initiatives aimed at enriching Berea's educational programs by reaching beyond campus toward collaborative engagement of regional and local issues.

 SOS members also see opportunity for synergism between any new focus on sustainability and several other initiatives arising from *Being and Becoming* and its associated implementation plan. Four such initiatives deserve special mention.

 First, an important opportunity resides in the emphasis on developing "service-oriented leaders for Appalachia and . . .(taking) advantage of the learning and service opportunities that are abundant throughout the region through the integration of curricular, co-curricular, and outreach programs" (*Being and Becoming*, page 35). As mentioned earlier, thoughtful focus on the challenges and opportunities unique to a given locale is one key to understanding and addressing sustainability issues. This strategic planning thrust toward the integration of regional learning and service opportunities can serve to promote both intellectual and practical understanding of the layered complexity that characterizes particular communities, both urban and rural. David Orr, in his *Ecological Literacy*, cited benefits of wedding place with pedagogy:

Places are laboratories of diversity and complexity, mixing social functions and natural processes. . . .A place cannot be understood from the vantage point of a single discipline or specialization. It can only be understood on its own terms as a complex mosaic of phenomena and problems. The classroom and indoor laboratory are ideal environments in which to narrow reality in order to focus on bits and pieces. The study of place, by contrast, enables us to widen the focus to examine the interrelationships between disciplines and to lengthen our perception of time. (page 129)

Opportunities to engage sustainable development issues in local and Appalachian regional settings - in both urban and rural communities as well as in the interaction between the two - should serve well those students who will become "service-oriented leaders for Appalachia."

 Second, the growing emphasis at Berea on internationalization holds promise in this connection as well. Although this report and much of sustainability literature attach special importance to the complexity and unique character of particular local and regional settings, there are many reasons for valuing an educational climate that fosters international perspectives. For example, many of the issues associated with sustainability inquiry – climate change, rapidly rising world population, consumption gap between first- and third-world peoples, the decline of ocean life, the impact of international debt on agriculture – appear to have cause and effect that transcend any national boundaries and to offer opportunity for constructive action that invites if not requires some level of international collaboration. Even for the purpose of engaging the details that characterize one's own "place," experience with the different social and ecological circumstances of other particular places can be of great value. Berea students who have had the opportunity for immersion in other "places" may be more likely to develop a growing appreciation for the complexity of the web of life and to place high value on cultural as well as biological diversity.

 Third, increased emphasis on experiential learning (e.g., the newly established student-faculty Undergraduate Research and Creative Projects Program, domestic and international service learning projects and internships) provides funding opportunities across the curriculum for projects that can that can be linked, for those so inclined, to sustainability issues. Finally, the campus-wide effort to enhance the learning/teaching environment through thoughtful use of instructional technology has rich potential for seeking "to understand the character and urgency" of sustainability issues. It is crucial to avoid uncritical acceptance of what Thomas Berry calls the "technological wonderland" myth that human beings can and should control the human/nature interaction and that whatever pollution or resource degradation humans cause can be rectified by application of technologies available or those not yet born. But as we reject uncritical faith in technological fixes, it is also crucial that we foster informed appreciation for the potential value of technology, as well as itslimitations, in understanding and addressing sustainability issues.

**A PROPOSAL**

 Given the force of external concerns related to sustainability, the linkage to Berea's historical mission and strategic learning goals, and the range of current resources and opportunities to support sustainability inquiry, the SOS proposes several related initiatives as steps toward taking seriously the broadened understandings of Berea's Great Commitments and the learning goals of *Being and Becoming*:

• establishing a Sustainability and Environmental Studies (SENS) Program

• hiring a full-time Director for the SENS Program

• establishing a minor program in Sustainability and Environmental Studies

• emphasizing staff development programs aimed at reducing Berea's ecological footprint and introducing sustainability themes into students' workplace experience

• emphasizing faculty development opportunities aimed at the integration of sustainability themes into the curriculum

• assessing the "ecological literacy" of incoming students as a first step toward identifying appropriate learning goals and assessing the effectiveness of curricular and co-curricular efforts to address them

 Although the questions being considered here in connection with sustainability - What should we be learning? What and how should we be teaching? - have implications that go well beyond the formal curriculum and co-curricular programming, we recommend that the proposed Programfocus on the integration of sustainability themes into these areas of student experience and on the provision of faculty and staff development opportunities aimed at supporting such integration. The Program'sfull-time director would lend energy, cohesion, and expertise to these integration efforts; to the development, administration, and maintenance of a SENS curriculum; to teaching in SENS-related areas; and to helping link the SENS Program to various other resources, programs and individuals both on and off campus. On-campus links with good development potential include those with academic departments having SENS-related courses or faculty with SENS-related interests, the Appalachian Center, the Brushy Fork Institute, the International Center, the Internship Program, the Undergraduate and Creative Projects Program, the various service and service-learning organizations, the Student Labor Program, the College farms and forests, the Solid Waste and Recycling Program, and the group responsible for a detailed campus energy audit. There are many opportunities for cultivating productive off-campus links with people and organizations some of whom have shared involvement in this initiative since the 1997 Agricultural Summit. Examples include Heifer Project International, the Center for Sustainable Systems, EARTH College in Costa Rica, David Orr, Dean Freudenberger, The Kentucky Environmental Foundation, Wendell Berry, and The Mountain Association for Community Economic Development. Work presently being undertaken by the Kentucky Environmental Education Council[[1]](#footnote-1) provides an off-campus opportunity for Berea to collaborate on a serious regional initiative. We further recommend that the Director begin fall term l999 with responsibilities selected from the draft Position Description attached as an Appendix.

 To provide some opportunity for curricular focus, the SOS also recommends establishing a minor program in SENS. We plan to submit one such proposal for APC consideration in the late fall or early winter. Our thinking is that the minor should provide an emphasis on the interconnecting dynamics of complex natural and human systems. In this connection, Wendell Berry captured the views of many sustainability educators when asked to speak at Berea's Agriculture Summit about what principles linking agriculture to natural systems, economic systems and human communities should guide thinking about Berea's stewardship of its resources.

This, I think, is precisely the right question for this meeting, and I intend no disrespect to it by suggesting that linkage is the called-for principle. Systems and communities are not discreet entities, but are perpetually and inescapably under the influence of one another. They influence one another in ways that we understand and in ways that we do not understand. This difficult and always somewhat mysterious principle of linkage - connection and influence - will lead us rapidly to other principles, humility probably coming next.

 We also believe the minor should be multi-disciplinary with an applied focus; i.e., it should be aimed at illuminating central issues in sustainability from a variety of disciplinary perspectives. This is the kind of learning opportunity that seems to be called for in the text interpreting *Being and Becoming's* first common learning goal:

We seek to develop in ourselves and our students the critical intellectual ability to address complex problems from multiple disciplines and perspectives. . . .Thus it is important for Berea College to create a multidisciplinary and interdisciplinary environment for learning that is focused on real world problems and practical applications. (page 31)

We see the minor, in part, as an opportunity for students and faculty to practice what David Orr identifies as the need for "...a kind of lateral rigor to combine knowledge from different fields," a kind of rigor that is different from and complementary to that required for plumbing the depths of individual disciplines and specialties within them.

 We propose a natural science component for the minor because we believe any responsible engagement of sustainability issues must be informed by basic ecological and environmental knowledge. However, we also believe responsible engagement requires a developing appreciation for the sense in which linkage among complex human and natural systems is the key principle, an appreciation that the illumination of the issues and associated opportunities cannot be accomplished apart from understandings rooted in the humanities, social sciences, and professional practice of many kinds. For these reasons we will propose a minor that (1) begins with a SENS course focusing on ecological/environmental foundations as well as the systems nature of sustainability issues; (2) involves students in relevant electives; and (3) concludes with a capstone course providing opportunity for project work by student teams whose members are selected for disciplinary diversity. Administering and maintaining the SENS minor, including student advising and program approval, would be the responsibility of the Director of the SENS Program in consultation with a Faculty Program Committee drawn from the various academic divisions. A separate but possibly overlapping Advisory Board with both on- and off-campus membership would provide advice and guidance to the Director regarding Program direction and linkage to cooperating programs and organizations.

 An examination of Berea's twenty-six benchmark institutions revealed that twenty-two of the schools offer a curricular program in some area of sustainability and environmental studies. Berea along with four benchmark institutions does not. The subcommittee discussed whether well-motivated prospective students with active interest in sustainability issues might apply to Berea or not depending on whether this avenue of study were available. The conclusion was that the proposed SENS program could only improve Berea's attractiveness to such prospective students and itsability to retain them once here.

 The SOS considered the possibility of proposing a SENS major, as was suggested in our charge statement, but concluded that a minor program would be more suitable at this point. Despite considerable interest and various levels of expertise among current faculty, we recognized a lack of available faculty time to structure and maintain a strong SENS major. Although it would be possible - if resources were available - to design a major program now and then recruit a limited number of new faculty to staff it, we believe that building more slowly on existing curricula, faculty expertise and student interest will yield a major, if there is to be one, better adapted to local conditions. We believe that the key to establishing an effective beginning for the SENS Program is commitment to the recommended Director's position. The visibility of a SENS minor and the resources of the SENS Program - particularly the Director's expertise and energy as directed toward teaching, faculty and curriculum development, program administration, co-curricular programming, and the development of linkages with cooperating programs and organizations - would serve to catalyze an increasing faculty knowledge base and the emergence of courses integrating SENS themes and proposed for SENS credit. Examples of such courses already suggested by faculty include GSTR 275. Faith Perspectives on the Environment; GSTR 255. Focus on the Natural Environment; GST 221. Appalachian Problems and Institutions; MAT 108. Environmental Issues, A Mathematical Modeling Approach; Environmental Physics; PHI 216. Reflections on Nature: Philosophy and the Environment; Sustainable Architecture; SOC 241. Socio-Economic Development; BIO 244. Dendrology and Forest Ecology; and ANR 253. Integrated Pest Management.

 Finally, we think it likely that a well-designed and supported SENS minor would evolve into a major program. However, the justification for establishing a minor does not depend on that result. Given the pervasive nature of sustainability issues, one important need is for heightened awareness of the myriad good possibilities for engaging those issues through lifestyle choices as well as a great many career paths built upon various combinations of pre- and post-graduate education and professional experience. An accessible minor of modest proportions is likely to address this need effectively for ~~s~~tudents with a widevariety of disciplinary majors and career interests. The purpose of the minor should not be so much to provide or supplement credentials for employment or postgraduate study as to provide ways of recognizing good and important possibilities in the many life choices that must be made.

**QUESTIONS FOR FUTURE CONSIDERATION (by SOS or other campus groups)**

 While preparing this interim report, the SOS began to consider the kinds of practical changes in Berea's way of life that might result from informed commitment to sustainability goals. What follows is a list of the most salient issues raised. They are included here in the form of questions to elicit comment and discussion from the College-wide community and to identify possible directions for future SOS work.

1. To what extent does or should sustainability and environmental studies relate to Berea's Appalachian bioregion?

2. How can the proposed sustainability initiative assist Berea in attending to its Great Commitments concerning Appalachia (#1 and 8)?

3. How can the proposed sustainability initiative best be linked to Berea's Christian Commitment? To the "plain living" commitment?

4. Should Berea in its self-definition and literature appropriate an identity as a Sustainable Development College? Practically speaking, what would such identification mean?

5. How, if at all, should understanding of sustainability issues be fostered in the General Education Program?

6. What would it mean for institutional fiscal policy and practice to be aligned with sustainability goals? What would it mean to review investment policies of the College with this alignment in mind?

7. Is it feasible to seek the commitment of a small fraction of the college's investment portfolio to support regional ventures in sustainable economic development?

8. What would it mean for institutional purchasing policy and practice to be aligned with sustainability goals?

9. How should recommendations from such work as the environmental audit be evaluated for possible implementation?

10. To what extent would it be desirable to reorient Berea's academic, labor, service and student life programs so as to centralize the tasks of addressing sustainability issues?

11. To what extent is it feasible and/or desirable for the College to supplement or replace its current food supply system with one centralizing food grown on College facilities by students?

12. Is it feasible and/or desirable to set a near-term goal of making Berea self-sufficient in terms of heating and cooling through a combination of conservation, solar and geothermal energy?

13. Would it be desirable to adopt College policy requiring all building and renovation projects at the College to complete and honor environmental impact assessments?

14. Is it possible to identify and maintain a campus "Green Belt," where no building or development is allowed to take place? Where would such a belt be located?

15. Could planning for the Artisan's Center at the I-75 Interchange include space for a local farmers' market?

16. What is to be gained from supporting the planting of native and/or edible flora on campus rather than exotic or merely decorative species?

17. What are the costs and benefits of discouraging the use of automobiles on campus, except for those with special needs? Of making good quality bicycles available to students?

18. Is it feasible and desirable to embark on a program of constructing bike paths from campus to the College forest, to other learning sites and to places where students need to go for shopping, etc. -- including Richmond? Where appropriate, how might the College encourage state and local officials to support the task?

19. What programs might be instituted to eliminate waste in the workplace (e.g., staff development seminars, creative competitions, etc.) ?

20. In what locations might it be most beneficial to implement study abroad experiences in light of the opportunities they afford for sustainability and environmental studies?

21. What advantages and disadvantages might be involved in acquiring the Forest Service Building for conversion into a Campus Environmental Center?

22. To what degree might the College convocation program and other venues be used to highlight issues related to the sustainability and environmental crisis?

23. How might visiting scholars be involved in keynoting the emphases recommended in this interim report (e.g., 1999 Fall Faculty Conference)?

**APPENDIX**

 **Director of the Sustainability and Environmental Studies Program**

The Director of the Sustainability and Environmental Studies (SENS) Program provides leadership and vision for the Program in all of its curricular, co-curricular and professional development activities aimed at integrating sustainability and environmental themes into student experience. Beyond primary teaching and scholarship responsibilities, the Director will work across administrative, disciplinary, and institutional boundaries to develop and coordinate opportunities for student learning and faculty development. This full-time, tenure-track position has a reporting line to the Academic Vice President and Provost.

Note: The following responsibilities represent the full scope of the envisioned SENS Program and are, in all likelihood, too much for any one person to undertake, particularly in the early stages. If the position is to be filled as recommended, it will be necessary to establish some priorities and limitations in communicating with candidates about expectations for the first few years.

**The primary areas of responsibility include:**

**I. Teaching and scholarship (50%-60%)**

• Teaches three or four courses per year in SENS, in a disciplinary area of expertise, or in GSTR courses where sustainability and environmental themes are appropriate.

• Engages continuing professional growth reflected in research, scholarship, or creative work that contributes to teaching effectiveness.

**II. Developing and/or administering any SENS minor or major curricular programs:**

• Provides leadership for a broad-based Faculty Program Committee which oversees the development and maintenance of any SENS curriculum.

**III. Integration and coordination:**

• Creates programming on Berea's campus, both independently and in collaboration with other departments, aimed at increasing awareness and understanding of questions, challenges, and opportunities in relation to sustainability and environmental issues (e.g., special convocations or symposia; activities in classes and residence halls; activities for new students during Orientation Week; activities designed to address recycling and food waste behavior).

• Serves as a resource for academic programs and faculty seeking to enhance elements of courses or curricula addressing sustainability and environmental themes.

• Serves as a resource for non-academic departments and staff who wish to learn about sustainability and environmental issues and opportunities for integrating SENS themes into the workplace and/or areas of student experience (e.g., student labor, residence halls, food service).

• Seeks to develop mutually beneficial linkage between the SENS Program and selected off-campus organizations which bring experience, expertise, and resources to sustainability and environmental efforts.

• Helps interested students and faculty access the resources of various on- and off-campus programs and organizations with SENS-related activities (e.g., academic departments, the Appalachian Center, the International Center, the Internship Program, the various service and service-learning organizations, the Student Labor Program, MACED, the Kentucky Environmental Foundation).

**IV. Faculty development**

• Collaborates with the faculty and academic administrators in exploring, planning, and evaluating faculty development opportunities aimed at integrating sustainability and environmental themes into the curriculum.

• Assists faculty seeking to initiate or extend research into issues related to sustainability and environmental studies in response to such opportunities as sabbatical leave or the Undergraduate Research and Creative Projects Program.

• Serves as a resource to those responsible for exploring, planning, and evaluating staff development activities aimed at fostering the kind of workplace practice that helps to reduce Berea's ecological footprint and to integrate SENS themes into students' workplace experience.

**V. General administrative responsibilities**

• Provides oversight and direction to any Program staff.

• Provides leadership for an Advisory Board composed of on- and off-campus members who provide advice and guidance regarding Program direction and linkage to cooperating programs and organizations.

• Maintains complete statistics and records of student, faculty, and programming activities of the Program and makes annual reports of these activities to the Provost.

• Works with appropriate Development or other administrative staff to cultivate external sources of funding for the Program's activities and programs.

• Assumes responsibility for such other tasks and projects as may be identified from time to time by the Provost.

**Preferred qualifications for the Director include:**

• commitment to superior teaching in a liberal arts environment;

• an earned doctorate focused on some area of sustainability and/or environmental studies;

• strong advocacy of sustainability and environmental learning to inform individual lifestyle and career choices as well as institutional practice;

• strong interpersonal, supervisory, and oral and written communication skills;

• a leadership style that promotes teamwork, enhances creativity, and builds consensus; and

• the capacity to work effectively with and in support of students as well as faculty and staff colleagues.

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1. The Kentucky Environmental Education Council was created by the General Assembly in 1990 to produce and update annually a plan for environmental education in the Commonwealth. For the purposes of the plan, environmental education is described as follows:

*Environmental education*

*\* Increases public awareness and knowledge about environmental issues;*

*\* Provides the public with the skills needed to make informed decisions and take responsible actions;*

*\* Enhances critical thinking, problem solving, and effective decision-making skills; and*

*\* Teaches individuals to weigh various sides of an environmental issue to make informed and responsible decisions.*

*Environmental education does not advocate a particular viewpoint or course of action.* [↑](#footnote-ref-1)