

NEIL B. WEISSMAN

# Sustainability & Liberal Education

## Partners by Nature

FEATURED TOPIC

**Viewed in terms of the liberal arts curriculum, sustainability has much to recommend it**

WRITING IN THE *Chronicle of Higher Education* in 2006, then Cornell University President Frank Rhodes proposed that “the concept of sustainability could provide a new foundation for the liberal arts and sciences.” While there have been many calls for curricular commitment to sustainability in the past, Rhodes singularly argued for the integral connection between education for sustainability (EfS) and liberal learning. Indeed, he labeled sustainability “the ultimate liberal art.”

In the years since, public attention to sustainability has spread widely across

America, beyond growing environmental organizations to the media, business, and even the military. Colleges and universities have participated in, and in many ways led, this “green” movement. The Association for the Advancement of Sustainability in Higher Education (AASHE) has 890 institutional members. Moreover, 659 institutions have signed the American College and University Presidents’ Climate Commitment (ACUPCC), which not only focuses on achieving climate neutrality in campus operations but also encourages reform of academic programs. As the ACUPCC text reads, “Campuses that address the climate challenge by reducing global warming emissions and by integrating sustainability into their curriculum will better serve their students and meet their social mandate to help create a thriving, ethical and civil society” (2012).

There certainly has been progress in turning educational attention to sustainability. *The Education for Sustainability Blueprint* issued by leading EfS organizations in 2011 reported growth in the number of degree programs on the environment and the opening of seventy college and university sustainability centers. But most of the progress cited centered on campus operations—from greenhouse gas emission inventories to recycling and tray-less dining—rather than curricula. Within the academic realm, programmatic innovation often has focused on vocational training rather than the liberal arts. As the *Blueprint*’s authors summarized, “Progress is greater in ‘greening’ campus buildings, grounds and operations than in actual teaching and learning, resulting in few if any indicators that this generation of college graduates on average is any more literate about sustainability than its predecessors” (EfS Blueprint Network 2011, 4).

The contrast between, as David Orr (2012) aptly put it, “green operations and brown curricula” makes it timely and important to examine both the potential of, and challenges to, sustainability education in the liberal arts. My perspective is that of a provost at a liberal arts college that has undertaken a substantial initiative in this arena.\*

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### **Sustainability and the liberal arts curriculum**

Viewed in terms of the liberal arts curriculum, sustainability has much to recommend it. Most obvious is the concept's breadth. Public attention currently focuses on "global warming," and particularly the scientific dimension of climate change. The same is true within academe. ACUPCC targets, for example, center on achieving climate neutrality and reducing greenhouse gas emissions, goals that start with measurement and understanding of the dynamics of carbon footprint. Investigation of climate change, particularly, and sustainability, generally in terms of biology, chemistry, earth science, or physics, quickly spills over into the realm of economic and social impacts and policy formation. Disciplinary study from the standpoint of social science promptly leads to issues of ethics, values, and culture that are the core concerns of the humanities. "We have many sophisticated scientific and policy analyses of climate change, species loss, and other environmental issues," reads the report of a 2007 conference at Yale on sustainability, "but our situation also requires the knowledge and wisdom of psychologists and philosophers, poets and preachers, historians and humanists to help us see and communicate hard truths and inspire individual and social change" (Leiserowitz and Fernandez 2008, 13).

Faculty development efforts that demonstrate sustainability's reach across the liberal arts, such as Northern Arizona University's pioneering Ponderosa Project or Emory's Piedmont Project, are readily available. Dickinson College's comparable Valley and Ridge EfS study group has since 2008 included fifty-one faculty from twenty-five departments and all three divisions of the curriculum, resulting in over forty new or revised courses with sustainability content. These include a mathematics course in which the examples were all drawn from the environmental history of Easter Island—a good example of how sustainability can set the context for courses devoted to seemingly unconnected skill development.

Importantly, EfS not only speaks to virtually all academic disciplines, it also demands that they enter into dialogue. Descriptions of effective sustainability education invariably emphasize holistic systems thinking, the ability to make connections, interdisciplinarity, and "lateral rigor." In a recent essay on leisure,

Robert and Edward Skidelsky ask, "What is the good life? And what is it not? And what changes in our moral and economic systems are needed to realize it? Such questions are seldom asked because they do not fall neatly into any of the disciplinary boxes that make up modern intellectual life" (2012, 13). These are precisely the interdisciplinary questions raised by sustainability. Put somewhat differently, sustainability advocates frequently invoke practices that mimic nature and emphasize organic elements in the environment. This approach readily translates to the liberal arts potential for integrative study and learning, to adding *synthesis* to the traditional curricular dimensions of disciplinary depth and general education breadth.

As the foregoing suggests, sustainability powerfully validates the liberal arts. In response to contemporary accusations of economic impracticality, defenders of liberal education have emphasized how such skills as critical thinking and "learning to learn" are vital to success in careers. This approach readily extends to sustainability, which has become a growing source of employment across many fields, including business and finance. Experts in careers related to sustainability particularly require the ability to constantly remake their technical training in an arena in which successful strategies must be flexible and adaptive. Moreover, the integrative nature of sustainability challenges gives rise to a demand for "translators," professionals with the understanding and communication skills to carry knowledge across the boundaries that divide communities of experts, policy makers, and the public (see, for example, Cash et al. 2003). As Bruce Schleim (2010), director for corporate sustainability at Citi, observed of sustainability-related careers, the practical need to combine deep expertise with broad perspective "makes liberal arts skills hard skills."

Sustainability's validation of the liberal arts extends beyond economics. While liberal education can hold its own in a contemporary dialogue dominated by concern over jobs and "return on investment," its origins and ultimate worth center on citizenship. Colleges and universities certainly reiterate this element in mission statements, strategic plans, and elsewhere. Yet education for citizenship is often framed formulaically, using

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broad terms such as “leadership” or “engagement” that lack the programmatic roots to make a compelling case. Sustainability brings citizenship down to earth (no pun intended). While we do not know the precise contours of change, defining our relationship to the natural world will undoubtedly provide a profound challenge for American democracy. EfS prompts students to wrestle with fundamental issues of policy and practice, and impels them to seek solutions to the problems confronting the communities in which they live.

Dickinson College, for example, was chartered in 1783 in the wake of the Revolutionary War to provide a “useful” education in the liberal arts to leaders of the new American democracy. The precise relationship between liberal learning and utility, especially as articulated in college publications, has occasioned more than a little debate among our faculty. “Useful,” for some, carries a problematic leaning toward the narrowly vocational and away from the reflective. Sustainability, by contrast, lifts the concept of useful, still encompassing vocation and social action but in a way that moves toward deep, integrative learning.

**The campus as a “living laboratory”**

By its nature, sustainability also breaks down barriers between higher education and the wider world. “Regardless of the subject of the curriculum,” states AASHE’s 2010 call to action, “students must learn and practice holistic systems thinking and be able to apply such thinking to real world situations” (2). Virtually every EfS agenda stresses the need to connect the classroom with local, regional, and global communities with an emphasis on place-based experiential learning. Indeed, there is strong potential here to undermine, if not entirely erase, the all too common vocabulary that contrasts academe with the “real world,” language that implies that the work of higher education is somehow “unreal.” Colleges and universities in the United States have significant environmental impact. As the Presidents’ Climate Commitment indicates, campus operations can and must become “living laboratories” of sustainability for the application of ideas, skills, and values developed in the

classroom. In so doing, higher education institutions model “real” practices beneficially adopted and adapted in other communities.

Envisioning the campus as a living laboratory carries us across boundaries within the institution as well. Much effort has been devoted to “bridging” academic and

student development, especially in residential colleges and universities. Classroom discussion of sustainability issues readily yields important implications for what we loosely call student “lifestyle.” And residential practices similarly can be used as vehicles for reflection on, and study of, broader issues such as consumption and policy. A more resistant, if not even insidious, division on campus—between students and faculty, on the one hand, and the facilities staff who support them, on the other—also yields to EfS. Sustainability practices can bring these constituencies together in operations and in the learning process. The efforts of facilities staff to “green” the campus provided a powerful impetus to Dickinson’s EfS initiative; I doubt we have ever had a significant curricular change similarly sparked by their work. Facilities staff currently work with students as collaborators and instructors on multiple projects, including a biodiesel fuel shop, an organic farm, energy conservation, and courses on green operations and carbon footprint. Many other campuses have launched similar activities.

Finally, references to application and community indicate a further and critically important advantage of sustainability education, namely, its congruence with many of our most powerful pedagogies. Supporters of innovation in and beyond the classroom will find Second Nature President Anthony Cortese’s assertion that “the entire educational experience of students is a function of not only what they are taught, but how they are taught” entirely resonant (Bardaglio 2007, 21). The overlap between the lists of core EfS strategies and of “high-impact educational practices” (Kuh 2008) is striking. On the level of activities, such shared items as community-based and service learning, internships, learning communities, and undergraduate research serve as cases in point. The two lists connect in

deeper ways as well. Both emphasize collaborative work, integrative learning, the combination of the intellectual and the experiential, active approaches to learning, problem solving, and, especially, engagement with contested ethical issues and “big questions.” Certainly, there is a direct line from EfS to the Essential Learning Outcomes identified by the Association of American Colleges and Universities: knowledge of human cultures and of the physical and natural world, skills ranging from critical thinking to problem solving, and the development of personal and social responsibility (AAC&U 2007).

### Challenges

Collectively, these strengths produce a powerful rationale for a strong sustainability dimension in liberal arts curricula. Some institutions, ranging in size and type from Green Mountain, Northland, and Unity Colleges to Arizona State University, have actively embraced EfS as a defining curricular dimension. Yet overall, introduction of sustainability into the liberal arts curriculum has been incremental at best. Why has progress not been faster?

In part, the barriers to change are the same as for educational reform in general. “Usual suspects” include disciplinary silos, promotion and tenure practices that work against experimentation and innovation, governance procedures that can make curricular renewal difficult, and faculty workload. There are, however, obstacles particular to EfS, issues that stem from the very strengths identified earlier. Most immediately, the breadth of the concept of sustainability that allows it to reach across the entire curriculum raises the problem of definition. EfS is typically envisioned as study of the environment. The ACUPCC’s focus on climate neutrality targets has had the unintended consequence of reinforcing this view. In fact, the origins of the term “sustainability” are usually associated with the 1987 report of the World Commission on Environment and Development (the so-called Brundtland Report), which had a much wider scope. It defined sustainable development as that which “meets the needs of the present without compromising the ability of future generations to meet their own needs” (43). Contemporary definitions customarily denote not one but three “legs”: environment, economic development, and social justice. And following this

line, issues that might to some seem tangential to environmental education, such as poverty, gender inequality, or human rights, come to the fore. This approach is comprehensive and integrative, but it also opens the door to issues not obviously related to the natural world. These, in turn, generate ambiguity and the question of what might not be included. Does sustainability include everything?

Dickinson’s Academic Program and Standards Committee ran into this concern head-on when members insisted that as an educational institution we must include “culture” as a fourth leg in defining sustainability. This promptly mired the committee in a temporarily paralyzing effort to define precise boundaries for the concept. We have moved forward with a “working definition” of sustainability as “the capacity to improve the human condition in this and future generations without degrading the natural world.” That wording anchors such study securely in the environment but retains considerable “creative ambiguity.”

The importance of social justice to most definitions of sustainability signals a second concern. As the debate over climate change readily demonstrates, EfS poorly done can be open to the charge of partisanship. That we all face a fundamental challenge in regard to sustainability, as the scientific community continues to demonstrate, is beyond debate. The contours, magnitude, and appropriate responses to that challenge are not. Our institutions can readily endorse such elements of a sustainable future as the education of women, access to health care, or the reduction of our carbon footprint, but questions such as the role of free trade in economic development or of contemporary capitalism or of growth itself need to remain open. In short, EfS makes institutions of higher education accountable for defining boundaries between advocacy and partisanship, and calls upon us to help our students find their way to social action informed by learning and reflection.

A commitment to EfS also carries with it the task of assessment. Of course, accountability for learning outcomes is not unique to sustainability. Yet the very breadth of the concept, including its emphasis on fundamental values and on application beyond the classroom, makes evaluation particularly challenging. AASHE has observed that assessment “mechanisms have been underutilized



in furthering sustainability education initiatives” (2010, 6). In a deeper sense, appropriate mechanisms have not been fully developed.

Some dimensions of EfS are readily measurable. Institutions can, for example, define courses that have sustainability content and track student enrollments. A first try at my college, for example, yielded 94 courses with 1,430 different students (60 percent of our total) enrolled in 2011–12. Yet a great deal needs to be done to make qualifying criteria tighter and, more importantly, to translate

such totals into what students actually learned. Gauging mastery of specific content and individual skills (e.g., can students measure their carbon footprint?) is relatively manageable as well. But in its most important dimensions, sustainability moves far beyond these specifics. “Sustainability is a complex concept,” the authors of one report write, “perhaps even an entire way of thinking” (EfS Blueprint Network 2011, 4). Indeed, EfS advocates would argue, it is an entire way of living. For example, Dickinson’s current draft



of learning goals includes a “disposition” to action. One might imagine an alumni version of the Presidents’ Climate Commitment, with quantifiable indices connected to lifestyle and carbon footprint that are measurable over time. But frequently cited and critically important outcomes such as an ability to understand the consequences of one’s actions, appreciation of the natural world, and commitment to social justice are of a different evaluative order.

### **The need for broader, systemic application**

What, then, follows from juxtaposing sustainability’s potential for invigorating if not fully transforming the liberal arts with the obstacles to achieving that promise? An analogy from the environmental movement itself may be apt. “Green” practices, from recycling to energy conservation, are everywhere. While welcoming these individual measures, activists also argue that they are inadequate, that the challenge of sustainability requires broader, systemic change. Similarly, EfS—with its ability to speak across the curriculum and to infuse courses from first-year seminars to capstones—is appearing with ever greater frequency. But broader systematic application is needed to take full advantage of sustainability’s capacity to make liberal education more deeply integrative and purposeful. How to proceed?

Much will be accomplished at the grass-roots level by individual faculty and students acting to insert sustainability into the curriculum where they see opportunity. There is, however, no substitute for broader institutional affirmation of purpose, in essence a more academically focused equivalent of the Presidents’ Climate Commitment. There are many opportunities to communicate this message, from mission statements and strategic plans to working documents such as admissions materials. We need to do so consistently, wherever it makes sense. At Dickinson, to cite an example initially unconnected to sustainability, a decision to translate diplomas from Latin to English provided an unexpected chance to complement the traditional language of “rights and privileges” bestowed on graduates with the affirmation of their

### **The degree of commitment to sustainability education and how it is realized will vary by institution**

“responsibilities.” These are now defined as “the obligation to use one’s talents and attainments for the betterment of humankind, our alma mater, and our planetary home.”

The degree of commitment to sustainability education and how it is realized will vary by institution. For a few, EfS will become the organizing principle for general education or indeed the entire liberal arts curriculum. Most will likely view it as a dimension of greater or lesser significance in what they do. EfS may infuse first-year seminars, majors, minors, electives, and/or other curricular options. In all cases, faculty will be key to success. For reasons already noted, their embrace of EfS is hardly assured. Beyond institutional obstacles such as heavy workload and inflexible systems of evaluation and reward, faculty are understandably passionately committed to teaching and scholarship that may not obviously fall within the wide reach of sustainability. Even in the very many



fields that do, faculty may not immediately see the connections.

Academic leaders will need to be creative, persistent, and willing to devote considerable resources to harness the underlying potential of sustainability education. One strategy, which has been employed successfully at my institution, is to focus on “early adopters,” either those whose fields directly address sustainability or others drawn to the subject by its importance. Given access to EfS expertise, stipends, and even reassigned time, they can carry out course and curricular development projects that inspire others to join in. In sum, material supports, the model of involved colleagues, and a strategic commitment by the college or university—all reinforced by growing concern for sustainability in society at large—can combine to move faculty and, through them, the academic program forward.

Finally, the potential of EfS will best be realized through its integration into broader efforts at pedagogical reform. In its ability to bridge theory and practice particularly, a sustainability focus facilitates best practices in experiential learning. Such activities as service learning, student-faculty research, and community-based projects are by their nature labor- and, therefore, financial resource-intensive. Infusing these practices with issues of sustainability can draw faculty and student interest and deepen learning. In so doing, EfS can provide important impetus to new pedagogies, helping (to use the term in a different context) sustain them in an era of limited institutional resources.

Sustainability advocates have long argued for the ethical imperative of higher education in regard to EfS. Authors of the 1995 *Essex Report*, for example, explicitly tied academic freedom and tax-free status to “a profound moral responsibility to increase the awareness, knowledge, skills and values needed to create a just and sustainable future” (Second Nature 1995, 3). When viewed particularly through the lens of the liberal arts, there is a profound educational imperative as well. Sustainability has the potential to vitalize and validate liberal learning in ways that both deepen our practice as teachers and engage us meaningfully with the wider world. □

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