

# The Sustainable Campus as a Learning Lab


A sustainable culture for a college or university involves infrastructure, community, and learning.

By Mitchell Thomashow

It's both rewarding and inspiring to observe all of the renewed interest in sustainability, especially in higher education. However, it's crucial given the scope of environmental and economic challenges that we reiterate our commitment to sustainable approaches as a comprehensive educational vision.

sustainability awareness. We are all sustainability educators now!

I propose that a deeply integrated, values-based approach to sustainability must thoroughly penetrate all aspects of campus life. For higher education, there are nine integrated elements that comprise a sustainable culture. As you survey these nine elements, consider how each one has a dynamic curricular potential, and how you might use each element as a teaching opportunity for all campus constituencies.



**I propose that a deeply integrated, values-based approach to sustainability must thoroughly penetrate all aspects of campus life.**

Broadly conceived, a sustainable culture for a college or university involves infrastructure, community, and learning.

Let's remember that sustainability is a response to three extraordinary and interconnected challenges: biodiversity loss, species extinction, and climate change. This response entails more than LEED buildings, innovative technologies, and cool new courses. It involves all aspects of campus life, including infrastructure, community, and learning. College and university leadership have a profound responsibility: how to use the campus as an educational opportunity to promote

The infrastructure challenge involves (1) energy, (2) food, and (3) materials.

Energy encompasses the carbon budget, renewable energy sources, and conservation efforts – all aspects of the energy system for a campus, from how the buildings are powered and heated to the specific daily, behavioral choices of the campus community. This awareness is crucial for achieving zero-carbon initiatives and meeting the goals of the American College and University Presidents Climate Commitment.

Food involves all aspects of the food production and consumption system, including the use of local and/or organic foods, whether food is grown on campus, and the extent to which the campus supports a sustainable food system. Do the cafeterias and cafes incorporate an ecologically sound approach to dining?

Materials embody the raw matter of various construction and procurement processes, including the supply chain, recycling, reuse, and toxicity. Is there a seamless connection between the ecological landscape and the campus buildings? Are life cycle criteria applied to materials use?

The community challenge involves (4) governance, (5) investment, and (6) wellness.

Governance reflects decision-making processes, including budget preparation and approval, staff and faculty participation, the board of trustees, and all stakeholders. Do sustainability efforts include multiple decision-makers? Are they strongly supported by the campus leadership? Is there clarity of purpose regarding mission, accountability, responsibility, and agency?

Investment includes all aspects of a college's impact on the finances of the regional community. Does the college serve as a multiplier for regional sustainability efforts? Does it support sustainable business practices? Is its endowment invested in ecologically responsible businesses?

Wellness involves the stress level, general health, physical fitness, and attitude of the organization. Does the college promote healthy living? Does the community emphasize its own physical and

mental well-being? Is there a correlation between campus health and the local ecosystem?

The learning challenge emphasizes (7) curriculum, (8) aesthetics, and (9) interpretation.

Curriculum is the ground floor of any college's sustainability efforts. Are sustainability principles (from economics to ecology) thoroughly infused in all aspects of the curriculum, from freshman experiences through professional schools? Are there specific programs to train sustainability practitioners and researchers, tailored to the special strengths and qualities of the institution?

Interpretation means that the campus should serve the broadest possible educational function in calling attention to its sustainability efforts. Here is the perfect place to exercise educational leadership – to use a campus as a venue for challenging instructional opportunities. Are visitors to the college adequately informed about the campus sustainability initiatives? Does the campus have interesting and evocative signage that performs a teaching function?

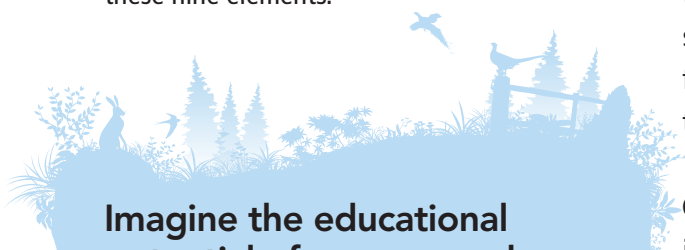
Aesthetics suggests that sustainability initiatives should be implemented with the arts in mind. Are there vivid, imaginative, and interesting exhibits/art projects/installations? Are the visual and musical arts utilized in planning the campus sustainability landscape?

## A Broader Discussion is Necessary

The purpose of these guidelines is to open a discussion regarding the whole system of a

sustainable culture. It's not enough just to build a few LEED certified buildings (as admirable as that is!). It's not enough just to have a great sustainability course for freshman. We need to empower and inspire entirely new ways of thinking. These nine elements imply the depth of our challenge. The college campus is the best place to exemplify these possibilities and to inspire a whole new culture of sustainable practice, living, and thinking.

Here are some rules of thumb to consider in thinking about the educational dimensions of these nine elements.



**Imagine the educational potential of a campus whose landscape is totally geared towards sustainability.**

## The Campus is a Sustainability Landscape

Every college and university is a physical landscape with an ecological setting. Its history and culture are deeply reflected in its buildings, grounds, and curriculum. The campus landscape makes a profound impression on everyone who uses it. We admire beautiful campuses because they inspire us. Imagine the educational potential of a campus whose landscape is totally geared towards sustainability – transparent and innovative use of local or recycled materials, building designs and retrofits that reflect a visible commitment to conservation, edible landscaping and gardens interspersed on

grassy lawns or urban street corners, or dormitories with rooftop gardens. What a great way to involve students (and their families), staff, and faculty in learning about sustainability through their daily life routines and habits.

## The Sustainable Landscape is a Learning Laboratory

Every sustainability initiative is an educational research experiment. We are fortunate to be living in a time when there are dozens of imaginative, technical, and interesting proposed sustainability solutions. Which of these are most appropriate for our campuses? How do we know? Who is taking notes and gathering the data?

Consider some of the ways that a campus is involved in sustainability research: materials science, renewable energy, ecological architecture, organic agriculture, urban policy, ecological economics, or environmental perception, just for starters. The list of research programs is endless, reflecting how the sustainability agenda is inherently intrinsic to just about any subject. All of these research programs can be visible, tangible, and totally integrated into all aspects of campus infrastructure. They should involve students and visitors. They should invite comment and critique. The campus will then be perceived as a dynamic learning laboratory for sustainability initiatives.

## The Sustainable Learning Laboratory is the Core Curriculum

These research experiments are not just theoretical. They are deeply intertwined in the everyday life of




students and faculty. It starts before students even arrive on campus when they are asked to consider the ecological end energy impact of what they bring to campus. It continues through freshman orientation, when they are introduced to what it means to live sustainably and consider the requisite contradictions and challenges. It continues with a freshman course that introduces basic concepts in sustainability. All majors have some sustainability component built into the curriculum. These efforts are supported with residential life practices, and illustrated by immersing the students in the various campus sustainability experiments. A similar comprehensive approach can be applied to non-residential colleges, on-line schools, or institutions that specialize in adult learners.

## Core Curriculum Emphasizes What We Do, Think and Know

Let me reveal my bias as an educator, and as someone who has always loved to read and study. The most compelling lessons in life come from the ubiquitous daily routines and behaviors. Our common habits (for better or worse) are the building blocks of a comprehensive worldview. When you disrupt those routines with different expectations and structures you are most likely to engender deep learning, and then, in turn, build new routines and behaviors.

A sustainability curriculum is empty if it is primarily theoretical. However, it is shallow if it lacks study, reflection, and substance. Students watch what we do and how we think. Our colleges and universities make the most lasting impressions in that regard. That's why work colleges such as Warren Wilson and Berea have such an extraordinary impact on

their students, or why schools like Unity College (and so many others) emphasize hands-on learning. Or why service learning has become such an important aspect of higher education. These are important trends in all colleges and universities regardless of their size. Arizona State has made great strides in implementing sustainability principles throughout the whole institution.



**Yet we often forget the spirit of sustainability is also celebratory and evocative.**

There will always be exciting philosophical debates about what students should know, reflecting the strengths and visions of diverse approaches to learning. Clearly many educators are now making a persuasive case for why sustainability concepts (however defined) represent core knowledge for a twenty-first century planetary citizen. Visit the website of AASHE, the Association for the Advancement of Sustainability in Higher Education, for a firsthand exposure to this dialog. What I am suggesting is that we shouldn't mistake that dialog for the larger challenge of also thinking about what we do and how we think. Sustainability is no longer a specialized interest, relegated to the green corner of campus. It is fundamental to how we think about all aspects of learning.

## Sustainability Teaches Wonder and Legacy

Much of the culture surrounding sustainability

emphasizes the importance of ecological limits. Hence the concept of stern sacrifice often travels with the sustainability stereotype. Surely discussions about material simplicity, frugality, affluence, and conservation are crucial for college campuses. Yet we often forget that the spirit of sustainability is also celebratory and evocative. We wish to call attention to the magnificence and mystery of the biosphere, the intricacy and wonder of biodiversity, and the sacredness of life.

Abraham Joshua Heschel, the great Jewish rabbi and philosopher wrote that “indifference to the sublime wonder of living is the root cause of sin.” As educators we wish more than anything that our students learn to love learning, that they internalize a spirit of investigation and curiosity, that they see great virtue in critical thinking and reflective inquiry. Most importantly, that they take joy in the educational process.

Perhaps this is the most important element of our common effort. Sustainability teaches you about your place in the community, your ecological and evolutionary heritage, and the legacy of humanity. We are Pleistocene creatures, not many generations removed from the Ice Age, now surrounded by a complex technological infrastructure of our own making. We are trying to figure out how to take care of the planet, as trite as that may sound. That remains the essence of our challenge.

## Sustainability is Deeply Embedded in Values and Vision

Forty years ago, when I was a junior in college (1969) I discovered the Whole Earth Catalog. I was enamored and delighted with its vision. Framed

with a stunning photograph of the Earth on its cover, it contained a brilliant resource guide with tools, books, and ideas about community, natural history, land use, learning, and whole systems thinking. In retrospect, it was my first academic introduction to the concept of sustainability. I realize that it provided me with a personal and professional guide for how I wanted to live my life and the work I wanted to do.

In many respects, my commitment as a college president is an effort to implement this same vision in higher education. Only now the stakes are so much higher. I hope you find that this article provides you with ideas and possibilities for your campus and that your approach to these issues is deeply embedded in your values. That is the essence of effective and enduring educational leadership.

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### *About the Author:*

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