

Sustainability and Higher Education

For future generations to thrive in this world, education must lead the way — by teaching, and by example

DAVID HALES

By the end of this century, we will live either in a world that is sustainable, peaceful and just, or in a world that is unstable, violent and insecure. We have the opportunity to make the choice, and thus we have the responsibility to do so wisely and well.

The 21st century will be characterized by massive and rapid change — a time of great danger and great opportunity.

Institutions of higher education will be the crucibles in which both individual and societal responses to this challenge are shaped.

The challenge we face is epic in nature, but so is the opportunity, and so, as educators, we have an unprecedented responsibility.

In the past 50 years, a number of factors have interacted to create an exponential increase in the pace and magnitude of change that threatens the sustainability of societies. One-half of Earth's land surface is now dedicated to the service of humans. We appropriate 40 percent of nature's net photosynthetic productivity. We are the primary users of half of the available fresh water in the world. We no longer affect just weather; we affect climate as well. No major natural system of this planet remains untouched by human activity. In short, we are the first generation of humans to become a force of geological proportions.

As we weaken the planet's natural systems, we increase our demands on them, and upon our social and political systems. More than 6 billion people, each one of whom needs 1,400 calories and four pounds of water a day to survive, now share this planet. Of the 180 people born each minute, 120 will be born in a city, 160 in a developing country. Of those who live to adulthood, one of three will be uneducated, and there are already more people living today who cannot read or write than there were people living in the world in 1900.

One-half of the people in the world live on less than \$2 (U.S.) a day, and the assets of the richest 200 people exceed the combined wealth of the

poorest 40 percent of the world's population. Of these 2.5 billion people, 70 percent are women and children. More than 2 billion people go to bed hungry each night.

We face four fundamental dilemmas, which are essentially moral choices:

- alleviating poverty;
- removing the gap between rich and poor;
- controlling the use of violence for political ends; and
- changing our patterns of production and consumption and achieving the transition to sustainability.

The world in which future generations live will depend on how we respond to each of these challenges, yet we are philosophically and institutionally unprepared for the decisions we must make and implement.

The institutions available to us to meet these challenges are demonstrably incapable of long-range planning, dominated by peculiar and special interests, fragmented in authority and responsibility, and designed to allocate abundance, not scarcity. The performance of these institutions in terms of human and ecosystem well-being, has not been encouraging.

If we are to hope that business as usual will lead us to a sustainable world, we must believe that the same

institutions and processes, that have led us to this point in human history, can lead us somewhere else in the future. Moreover, we must argue that substantial inequities in distribution of political power and material wealth are either inevitable or just.

On the other hand, to abandon our dominant institutions and attack the status quo indiscriminately would have tremendous implications for natural systems and human well-being as well. Neither slavish adherence to the arrangements of the past nor unthinking rejection of them will guide us through the transition to a world that is sustainable and just. We must reject neither our history nor our future.

Education for Sustainability

Institutions of education are essential to actively challenging the forces that threaten both human and natural system well-being. We must seriously postulate the existence of discontinuity between our values and our institutions. It is in the academy of practitioners and scholars that we will debate and clarify our basic values and develop an understanding that institutions are only the vehicles for those values. If we hold firm to the values, the institutions will respond. If we hold rigorously to the institutions, our values will deteriorate. The purposeful, conscious and active evolution of our values and institutions must begin with higher education. No other societal institution can play this role. Education is the force that will enlighten, enable and empower our choices.

There are competing etymologies for the English verb "educate," but the one I prefer considers the word itself to be based on the Latin word *ducos*, to lead, and the prefix *e* — out or out of. In the ancient foundation of the very word is the challenge of our

future. Higher education must move beyond the responsibility to prepare students to live in the world as it will be — we must embrace the responsibility to prepare students to shape the world in which they will live.

How Must We Respond?

We must look carefully at how we organize and present knowledge.

We must realize that our institutions reflect our values in ways that are just as influential on our students as the lessons in our classrooms.

We must acknowledge and assert our values and our purpose.

We must develop and embody an ethic for the 21st century — an ethic that holds that the opportunity to make a difference is equal to the responsibility to make a difference.

At College of the Atlantic, we study the relationships among humans and the natural world. The province of “human ecology” is no more — and no less — than that. We focus on the interaction of four “worlds” — the natural world, the social and cultural world of humans, the virtual world that permeates our lives, and the world of the imagination. Our commitment to teaching and to a pedagogy of high-value, personal interaction is magnified by our singular focus on human ecology. We believe that the relationships among humans and between humans and the environment can be made more sustainable, more peaceful and more just. We believe that humans are firmly and inextricably embedded in the natural world, and that each person can make a difference.

It is no accident that problems with clean air, clean water, toxic pollution, genetically-modified organisms, extermination of species, nuclear waste, overpopulation, desertification, deforestation and global warming have emerged in the same incredibly brief moment in human history. Nor is it an accident that human ecology has emerged as a new academic focus in

this same period. The historic role of education has been to provide society with the capacity to understand, anticipate and respond to the needs of society. The responsibility of education is no longer just to help understand the world in which we will live, but also to shape the world in which we want to live.

We have also committed ourselves to practicing what we teach.

All college ceremonies and special events at College of the Atlantic — commencement, convocation, parent’s weekends, Earth Day — are “zero waste.” We are reducing our energy consumption with a wide variety of

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efficiency and conservation measures, and all of our electricity comes from renewable sources. In December 2006, we achieved Net Zero in greenhouse-gas emissions, through a combination of avoidance, conservation, and offsets. We have committed ourselves, by 2015, to 100 percent reliance on renewables, including transportation and heating. The food we serve on campus is organic and locally grown for the most part, and much of it is produced on our own organic farm, managed and operated by current and former students. We neither purchase nor sell bottled water. We purchase only Energy Star appliances. Almost all the materials we use are recycled — from paper products and furnishings to the shingles for the roofs of our buildings. The paints we use contain no volatile organic compounds.

We have taken these steps not only because we believe them to be the right thing to do, but also because they are the smart things to do. Just as importantly, we have taken each of these steps as a community in which

students, staff, faculty and trustees share the commitment and participate in the implementation.

In our curriculum and our co-curriculum, we emphasize that all actions are the embodiment of choices, that all actions have consequences, and that it is the responsibility of an educated person to understand those relationships and to learn from each mistake.

A Time of Moral Choice

We are the first generation to have the realistic possibility of achieving a just and sustainable society. We have the skills and knowledge, the technology, and clear evidence of the penalty we

will pay and impose on our children, if we are not successful. No one of imagination and insight can sincerely assert that business as usual at the end of the 20th century can produce a world in which we want our children and grandchildren to live at the end of the 21st century. What remains to be seen is whether we have the will and courage to do that which we know is necessary.

Our actions will write the future across the face of this planet. It is in our power to choose the future. This is both the lesson and the legacy of the marvelous world in which we live, of the systems and the processes that we call nature. The individual is both acting and acted upon. Our actions are choices, and we, as individuals, and as institutions of higher education, can make a difference.

David Hales is president of College of the Atlantic. E-mail: dhales@coa.edu