

Why Sustainability & Why Now?

- Human presence on a global scale
- All living systems in long term decline at unprecedented and accelerating rate
- Massive public health problems
- Unprecedented growth in population and consumption
- Entrenched and growing poverty
- Large gap between rich and poor accelerating
- Political instability and war
- Endemic human rights problems
- Economic globalization without focus on common good
- Global Warming



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For the first time in human history, humans are pervasive and dominant forces in the health and well being of the earth and its inhabitants. We are the first generation capable of determining the habitability of the planet for humans and other species. No part of the earth is unaffected by humans and the scale of our impact is huge and growing exponentially. (The Innuits in Alaska have the highest level of PCBs and DDT in their bodies in the world, despite being 1000 miles from any industrial activity.) ***Despite all the work we have done on environmental protection, all living systems are in long term decline and are declining at an increasing rate according to all international scientific, health and policy organizations.*** This is happening with 20% of the world's population consuming 80% of the world's resources. How will we cope in a world that ***will*** have 9 Billion people and that plans to increase GWP by 500% by 2050? **This is an awesome ethical responsibility for us, especially in higher education.**

Systems Problem & Design Failure



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We view health, social, economic, political, security, population, environmental and other major societal issues as separate, competing and hierarchical when they are really systemic and interdependent. *We don't have environmental and health problems, per se.* We have negative environmental and health consequences of the way we have organized society from a cultural, social, economic and technological perspective. We have a de facto design failure. We really have a human crisis - not an environmental one. The biosphere has survived 5 different extinctions in the past and will survive the potential 6th one being created by humans. The challenge is will humanity survive and, if so, what kind of society will we have.

Most of our challenges are unintended consequences of the way we have organized ourselves as human society. We have systemic challenges that can not be addressed by working on only one or two of the multiple, interdependent problems. As Einstein said, 'We can't solve the world's problems at the level of thinking at which they were created.' Psychologists quip that 'one definition of insanity is doing the same thing over and over again and expecting a different result'. We need 'out-of-the-box' thinking - transformative change in thinking, values and action.

Katrina Lessons

- Little understanding of role of environment in health, security, longevity
- Inability to 'control nature'
- Non-linear, catastrophic effects from a 75 years of gradual change
- Denial and neglect to respond, mitigate, prevent
- Community survival = individual survival
- Lack of preparedness for total societal breakdown



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Dominant Human Beliefs

- Humans dominant species separate from environment
- Resources free and inexhaustible
- Technology the answer
- Earth can assimilate all wastes
- All human needs can be met by human means
- Individual success independent of health of communities, cultures and ecosystems



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The current worldview that western culture operates under is depicted in this slide. These are the deep operating assumptions that are largely invisible to us and are being reinforced by the social, economic and political system as well as formal education. Reflect on what advertising tells us: we are deficient without having x product; we can have anything we want (there are no limits), we all can have instant gratification; we will be much happier and better off from every standpoint if we buy product x or act in y fashion (hipper, cooler, better off than the Jones').

What is Sustainability

“The ability of current generations to meet their needs without compromising the ability of future generations to meet their needs.”

UN Commission on Environment & Development, 1987



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Dimensions of Sustainability

- Human Health
- Social Justice & Equity
- Economic Opportunity for All
- Ecological Integrity & Diversity



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WHAT DOES IT MEAN TO HAVE A SUSTAINABLE SOCIETY?

Sustainability is not just about the environment. All these challenges are interdependent and must be addressed in order to create a healthy, just and sustainable society. This is the major difference between environmentally responsible action and sustainability. Sustainability is about remaking the human presence in the natural world in a manner that will allow all current and future humans to be healthy; have strong, vibrant, secure and thriving communities and nations; have economic opportunity for all; and restore and maintain the integrity of our life-support system - the biosphere.

Global Transition

From

- Fossil powered
- Take, make, waste
- Living off nature's capital
- Market as goal
- Loss of cultural & biological diversity
- Individual centered
- Materialism as goal

To

- Solar powered
- Cyclical production
- Living off nature's income
- Market as servant
- Increased cultural & biological diversity
- Community centered
- Human satisfaction goal



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This is the fundamental transition that society must make. Solar powered means all renewable energy which derives from “current” solar income. These changes imply that a deep cultural change is needed and that higher education is one critical leverage point in this change.

Higher Education's Importance to Sustainability

- Influences current & future leaders & professionals
- Deeply influences K-12 education
- Dedicated to new ideas, exploration and experimentation
- Has critical mass & diversity of skills necessary
- Crucial but overlooked leverage point in transition to sustainability



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Opportunity in Higher Education

- 4,096 U.S. Colleges and Universities¹
- 14.8 million students¹
- \$277 billion annual expenditures; 2.8% of the GDP¹
- Higher education expenditures greater than the GDP of all but 25 countries in the world²

¹ From: 2001 Digest of Education Statistics, US Dept. of Education.

² From: 2001 CIA World Factbook and Dowling, Mike., "Interactive Table of World Nations," available from <http://www.mrdowling.com/300nations.html>; Internet; updated Friday, June 29, 2001



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Higher education is a large economic engine. Imagine the market impact for sustainably preferable products and services if higher education modeled sustainability through its purchasing and operations. Imagine how much more economic and community relations benefits would occur if HE institutions partnered up with local communities of which they are apart. Finally, imagine the educational benefit if students were involved in doing the ‘research’ needed to make sustainably preferable purchasing, planning and building. It could help the corporate sector move much faster toward sustainability by hiring skilled graduates as well as a consumer population that has the ability to distinguish between sustainable and unsustainable products and services.

Educational Challenges

- Issues Complex, systemic and interdisciplinary
- Learning fragmented and disciplinary
- Learning specialized and individually oriented
- Learning separate from practice
- Societal & environmental impacts invisible and ignored
- Rewards and incentives discourage interdisciplinary, systemic teaching and inquiry-based and collaborative learning



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Why isn't sustainability currently a foundation of all learning and practice in higher education? Here are some of the reasons.

Vision 2015

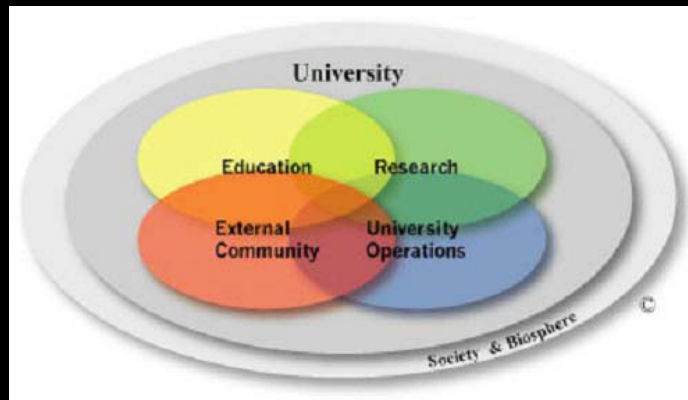
Sustainability is the foundation of all
education and practice in higher education



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Higher Education Modeling Sustainability as a Fully Integrated Community



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What if higher education were to take a leadership role, as it did in the space race and the war on cancer, in preparing students and providing the information and knowledge to achieve a just and sustainable society? What would higher education look like? The education of all professionals would reflect a new approach to learning and practice. A college or university would operate as a fully integrated community that models social and biological sustainability itself and in its interdependence with the local, regional and global community. The educational experience of students is a function of what they are taught, how they are taught, the way in which the university manages, conducts research, operates, purchases, designs facilities, invests and interacts with local communities. In many cases, we think of teaching, research, operations and relations with local communities as separate activities; they are not. All parts of the university are critical in helping to create transformative change in the individual and collective mindset. ***Everything that happens at a university and every impact, positive and negative, of university activities shape the knowledge, skills and values of the students.*** Future education must connect head, heart and hand

Transforming Higher Education

- Content of learning
- Context of learning
- Process of learning
- Institutional Practice of Sustainability
- Partnerships with Local & Regional Communities



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Education for Sustainability

- Systems thinking as a fundamental framework
- Integrated, interdisciplinary learning
- “Lateral” & “vertical” rigor in learning
- Ethics, values & sustainability seamlessly integral to all disciplines
- Collaborative & experiential learning
- Practicing sustainability on campus and in communities



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State of the Movement

- >1000 with environmental studies
- 250 sustainability coordinators, offices, committees
- 275 campus sustainability assessments
- 300 LEED Buildings
- HE largest purchaser of wind energy
- Greatly increased student activism



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State of the Movement

- NWF Campus Ecology
- NCSE - CEDD
- ULSF
- Campaign for Environmental Literacy
- Second Nature
- USPESD



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State of the Movement

- EFS West (100)
- Associated Colleges of South (20)
- Northeast Sustainability Coordinators
- NJHEPS (56)
- Pennsylvania Consortium (45)
- SC Sustainable Universities Initiative (?)
- Alabama colleges & universities
- Michigan colleges & universities



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State of the Movement

- AACU
- APPA
- SCUP
- NACUBO
- AACU
- NAEB
- NASULGG
- AASCU
- ACE
- CHEMA
- ACUHO
- AGB
- ACUI



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Current Challenges

- Sustainability not mainstream in education
- HE top management and most faculty don't get it
- Current efforts at EFS are fragmented/isolated
- Current efforts too slow given world needs
- Current efforts are incremental and not transformative
- Higher Education will not change on its own
- Poor structures for collaboration between and among internal and external stakeholders



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HE on Sustainability Scale?

1. Sustainability 'Lite'
2. ...
3.
4.
5.
6.
7. Sustainability 'Second Nature'



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Answer?

1 - 1.5



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Transformative Change

- Problem Solving to Creating
- “Knowing” to “Learning” Communities
- Risk Averse to Bold Experimentation
- Scarcity to Abundance
- Impartial Convener for Society
- Public Voice on Societal Challenges & Solutions



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Higher Education Stakeholders

- Administrators
- Faculty
- Operations & facilities managers
- Students
- Trustees
- Staff
- Higher Ed Associations
- Alumni
- Parents of students
- Communities
- Accreditation orgs.
- Future Employers
- Funders
- Professionals
- Future Generations
- World cultures
- Biosphere & all its species



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New Developments

- 2006 “Campus of the Future” Conf.
(SCUP, APPA, NACUBO)
- October 26 Campus Sustainability Day
(SCUP, SN, AASHE)
- USPESD



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New Developments

- Campaign for Environmental Literacy
- HE Presidents/CEO Summit (2006)
- HE Association Strategic Initiative
 - 16 HE Associations
 - 2015 Vision & Strategies



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New Developments

**Association for the Advancement of
Sustainability in Higher Education**

AASHE

(AY-shee)



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AASHE

- North American
- Professional
- Membership Based
- Colleges, universities, organizations, businesses
- Administrators, faculty, students, staff



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AASHE Mission

**Make sustainability the foundation of *all*
teaching, research, operations and
outreach in higher education.**



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AASHE

- Learning Community
- Network, newsletter, list-serve
- Collect and share resources
- Conferences, workshops
- Professional development
- Inform local, state & national policy
- Encourage & facilitate collaboration
- Awards and recognition



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Founding Board

James Buizer, ASU

Terry Calhoun, SCUP

Geoff Chase, SDSU

Tony Cortese, SN

Charles Glasser, JFKU (*Em.*)

Monty Hemple, U. Redlands

Bob Koester, BSU

Yolanda Moses, UC Riverside

Freda Pagani, UBC

Debra Rowe, OCC, USPESD

Paul Rowland, U. Montana

Matt St. Clair, U. California

Sheri Tonn, Pacific Lutheran U

Jerry Yudelson, Interface Eng.



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AASHE Staff

Judy Walton

Executive Director

Julian Dautremont-Smith

Associate Director



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Movement Principles

- Become a true learning community
- Firm on principles, flexible on positions
- Build on and celebrate all current and past work
- Build on the strengths of all efforts
- Be as inclusive as possible
- Build new alliances
- Maximize communication and collaboration



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Why Higher Ed Should Lead

- Improved Learning
- Students prepared for citizenship and career
- Increased external respect
- Attraction of students, faculty and funding
- Reduced economic, social & environmental costs
- Cooperation and satisfaction across the university
- Fulfill moral and social responsibility
- If we don't, who will?



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Myths to Dispel

- Sustainability is just another special issue
- Sustainability is secondary to the University's core mission and function
- Sustainability will always cost more money
- Sustainability is primarily a scientific and technical problem
- Disciplinary and individual learning is the best and most rigorous form of learning



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What You Can Do

- Join AASHE
 - Contribute info and resources to newsletter and databases
 - Get involved in working groups
 - Sponsor conferences and workshops
 - Suggest ideas, projects and programs

You are AASHE - it doesn't succeed without your ACTIVE participation!



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What You Can Do

Promote and Participate in

Campus Sustainability Day

October 26, 2005

www.scup.org

tcalhoun@scup.org



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What You Can Do

- Join USPESD
www.uspartnership.org
dgrowe@oaklandcc.edu
- Presentations at Campus of Future Conference
- Work with your campus members of mainstream HE organizations (e.g., APPA, SCUP, etc.)



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Change Agent Principles

Passion

Patience

Persistence

Praise

Practice

Partnership



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Sina Qua Non

*Communication is to sustainability
what*

Location is to real estate



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Actions for Transformative Change

- Faculty, staff and student development
- Assess and overcome barriers and create incentives for EFS
- Work with educational and professional accreditation organizations
- Work with future employers to influence educational institutions
- Work with alumni of educational institutions



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Actions for Transformative Change

- Work with public and private funders of education and research
- Work with professional associations to make sustainability a high priority
- Help local and regional communities to become sustainable
- Awards programs
- Ongoing communication about sustainability and its benefits to society and higher education



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Challenges of Change

"It's not what you don't know that will get you, it's what you know that just ain't so"

-- Mark Twain



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Why transformative change is so hard. When humans see the world through the current paradigm, they have extreme difficulty in seeing or accepting a new paradigm. In the new paradigm and the next industrial revolution we must have a greater appreciation of what we can never know and be prepared for the unexpected surprises that will occur as result of the size and nature of the human enterprise and its footprint.

Second Nature: *New Directions*

- Strategic Assessment, Collaboration and Influence to Reach the Tipping Point
 - HE Association Strategic Planning
 - University President/CEO collaboration
 - Campaign for Environmental Literacy
 - Identifying high leverage opportunities for action
 - Work on ‘Framing’ sustainability for HE & beyond
- Advisory Services to Colleges, Universities, Consortia, Associations, other SHE Groups



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