Prospects for the Sustainability Movement

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In April 2004, I was asked to be the keynote speaker at the annual UC/CSU Green Building Conference held at UC Santa Barbara. I posited at that time there were three societal movements converging toward one sustainability movement. Chronologically, these are the social justice movement, the smart growth movement, and the green building movement. Since then, I have tested this notion with many colleagues from these three movements as well as many professionals in my College’s arena. Most concur that we simply must create a more sustainable future and there is a particular need for leaders who can form broad coalitions transcending current social, political, and technical divisions. They must collectively combine moral passion, technical prowess, and societal persuasiveness.

We will need to achieve fundamental changes in tax codes, government investment priorities, and private sector regulation to redirect our economy toward sustainability. This is a daunting agenda. A range of economists and theorists have argued that the changed direction will be a more cost effective and efficient use of financial resources and labor, yielding a healthier environment and creating a better platform upon which to address social and income disparities as well. Yet billions of dollars are invested in current production, extraction, and development practices by entities that will naturally be threatened and resist change, as evidenced by 25 years of international attempts to adopt targets related to reduction of carbon dioxide and other air emissions. We need thoughtful design, financing, and political innovations applied to the problems of thousands of old factories, unskilled laborers, and economically depressed communities or stiff opposition will remain even from among those most hurt by current conditions.
Can this fledgling sustainable movement succeed at this, and who currently cares?

Conservative author Clyde Prestowitz, who spent much of his career as a businessman and in Republican policy circles in Washington, devotes a major section in his recent book *Rogue Nation* to a critique of failed US energy and global warming policy under several of the last presidents. His work takes a broader look at in his terms “American Unilateralism and the Failure of Good Intentions”, but his section on environmental and energy policy failures sounds remarkably like liberal writer David Orr who came to Cal Poly last spring. When thoughtful, articulate, and well-informed writers from opposite ends of the political spectrum reach similar conclusions about a set of issues and call us to take responsible action as a nation, it gives us hope that a broad number of Americans may also be ready for leadership and bi-partisan solutions. The challenge for the sustainability movement is whether it can fill this current leadership and policy vacuum, or whether false prophets and pseudo-science will create the appearance of progress even as conditions deteriorate.

David Orr suggests three stages or elements that must come together in any successful social movement, and each requires leaders and participants with different skills. He suggested a movement needs:

- **Spirit**: The dramatization of the challenges — requires prophets and visionaries, poets and artists.

- **Science**: The creation of more accurate and telling metaphors and theories — requires scientists and researchers, analysts and statisticians.

- **Society**: The engagement in political change — requires leaders and activists, strategists and organizers.

Social justice leaders like Angela Glover Blackwell, nationally recognized African-American scholar and founder of PolicyLink, and Manuel Pastor, UC Santa Cruz social geographer exemplify leader/scholars who are growing cross-fertilization between the environmental and social justice communities on joint challenges and strategies. Hundreds of leaders like them are working at local, regional, state, and national levels to knit together the spirit, science, and society components of sustainability, albeit with little media attention and little student awareness.

Within this context of much grassroots activity here in California, the green building movement has emerged as a more visible and a stronger focus of mainstream public leaders than the other strands of the sustainability movement. The state itself and many cities and counties have moved to adopt the LEEDS system that uses points to score a buildings energy and environmental sustainability achievements. Both the design and construction industries have been rapid to respond to the system and demonstrate com-
petence in sustainability as the client base for LEEDS certified buildings is rapidly growing.

The potential means for achieving a greater number of public benefiting green buildings and landscapes is also there. This is due to the combined efforts of a united social justice and smart growth movement that pushed legislators to propose and voters to approve a record amount of state funding for K-12 schools, affordable housing, and public open space, during the years 1998-2003.

There is still much to be done to incentivize or require greater sustainability with these publicly-funded projects. There is also much work to be done to deepen scientific research into the effects and impacts of thousands of materials and develop more accurate measures of buildings and landscapes. The current LEEDS system is a good start, but it makes achieving some points much easier than others, and is not yet fine-tuned to reflect different climatic zones and building types. And it does not yet reflect that the space occupied per user or occupant’s consumption patterns may vary widely between projects and be a major environmental problem itself.

In California, transportation use of energy resources is greater than building uses, so getting residents closer to jobs or transit so they don’t need to drive is likely to save more energy than providing greener but car-oriented homes. Some recent green affordable housing developments near job centers are showing that one can achieve a sustainability “triple win” by housing lower wage workers closer to their jobs in housing that conserves resources.

At the same time that the evidence of green benefits grows, the cash-strapped and budget-bifurcated state educational institutions like our own actually face a harder time achieving green building successes on state budgets than achieving social equity or smart growth gains where we have been leaders. We currently lack the up-front resources or financing mechanisms available to some industries that we need to invest in the more costly green features, even when the long-term economic benefits can be demonstrated.

While we can work to maximize sustainability within the current constraints, it is also the time to propose a “California Green” bond that would raise funds for university and state agency facilities for up-front green features, to be paid back partially out of the anticipated energy and water savings, or a private-public partnership act that gave investors in “green campuses” rewards for their participation.

Additionally, as we try to build support for more green building financing programs, it is also critical to further inform the public and our students about the larger growth and social equity challenges we have inherited that cannot be addressed solely through green buildings.
The legacy of the 90's boom, a period of alleged unprecedented overall economic growth for the US, was also our biggest resource binge. Not only did we reverse the trend toward using less energy per family that started in the 1970's, we consumed many resources to support our lifestyle and community patterns at an accelerating rate.

Masked by this increased general consumption and statistically higher average incomes, the state's own economists revealed that two-thirds of our households either stagnated or lost ground economically during this robust era. In Myron Orfield's "California MetroPatterns" study of community fiscal health, commissioned by the prestigious Hewlett, Packard, and Irvine Foundations, he found a growing disparity between winner and loser communities, not just winner and loser households before the recession began in 2000, and the trends have likely worsened since.

The top winners are the 6% of Californians now living in upper income exclusive enclaves and another 6% in the upper middle income "retail and office destination suburbs" that gained local tax revenues faster than they added people or costs. These are the communities with few or no affordable housing units, but where a large number of lower and moderate-income people drive to work or shop. At the other pole, 37% of communities saw tax revenues per capital plummet, or costs per resident rise, as they either stagnated and were bypassed by growth, or grew in a pattern that left public cost burdens. Equally troubling, the majority of our state's regions experienced a resegregation of schools, even as we become a more ethnically diverse state.

How and when these patterns can be changed or reversed has international significance. As Californians, we will be gaining 1/4 of the entire US population for the next several decades, almost 12 million more people by the year 2020. This growth in one state, if no changes are made, would itself require the combined energy and natural resources of between 6-10% of the entire globe using World Watch's analysis of our lifestyle impact on the planet.

California's universities will also need to grow to absorb the expected surge of young people, and should also be expected to grow the debate and dialogue about the many issues and challenges related to this growth, and engage in producing the new ideas, technologies, and civic engagement models that will provide solutions. Our own polytechnic institution can play a particularly vital role during this era, as we foster a combination of analytical, technical, and creative skills and prepare students to be collaborative professionals. Our faculty and students have already begun taking initiatives to widen the circle of knowledge, information, and ideas about sustainability beyond the boundaries of our traditional disciplines and of our individual campus.

David Orr's visit here in April symbolized the establishment of our connection to a wider sustainability movement, and he reminded us that while must achieve quantifiable improvements in our buildings, these must also serve the higher interest of improv-
ing the quality of life. Quoting his own passage in *The Nature of Design*, he reminded us “we are part of the search for an ecologically informed enlightenment...and interested in a better world, one that can be sustained ecologically and that can sustain us spiritually.” His own reflections led him to take action at Oberlin in the construction of a signature green building and landscape as living pedagogy and a model for future development. Supported largely through private fundraising, the building has achieved a real public good beyond its own use, as students have been inspired by the building to work on projects to reduce environmental degradation and foster community development in the economically depressed town of Oberlin, Ohio. These efforts bridge a town/gown divide as well as a green building/smart growth/social justice divide. And that is what we must ultimately strive to achieve for our own and other University communities as well.

An example of the close convergence between the movements, which is also a divide, one need only look at the issue of what our public school facilities should be like, where they should go, and who they should serve. The green building movement has spent several years seeking higher performance schools and universities from the standpoint of sustainable building technology and systems, considering such issues as construction materials and systems, the attainment of greater energy efficiency, and the improved health benefits of attending school in green buildings. The green building advocates focus here has been on changing *what* buildings are made of and powered by.

The smart growth movement is seeking higher performance schools and universities from the standpoint of sustainable communities and health systems, with primary attention on the location of schools at community centers, the synergistic mixture of uses on school sites, transportation and housing systems, and how they are tied into educational campuses. The smart growth advocates have been focused on changing *where* buildings are located and served.

The social justice movement is seeking quality educational facilities, programs, and services that link educational campuses to their communities as partners in developing an educated workforce, attracting good investments into the community, and providing lifetime opportunities for the social and economic improvement of individuals and their families. Social justice advocates have been focused on *who* buildings benefit or affect.

One would imagine close collaboration between the groups to cross support one another or merge attempts to create policies and programs that linked the What, Where, and Who, of sustainability. However, in general, the green building movement has been technically focused on regulatory agencies, while the smart growth movement has been focused on state legislation and governmental bonds and appropriations. Rarely did the two interact in the State Capitol. At the same time, social activists had to use the courts.
to force the state to change the way funds for schools were allocated that had awarded billions to growing new suburban districts with a good tax base and left poorer districts with no funds. Neither green building groups nor smart growth groups took on this issue until recently.

Fortunately for an integrated movement, the public sees these issues as interconnected and is seeking common solutions. Polls conducted by the Public Policy Institute of California (PPIC) during 2000-2002 show most Californians are very concerned about the environment and our resource depletion, and also about traffic, lack of affordable housing, and bad land use planning. They believe global warming is a real phenomenon, although they lack familiarity with such terms as “sustainability” and “smart growth” and are even less familiar with the term “sprawl”.

They strongly feel we need to address our interrelated environmental challenges while also strongly sensing no leadership at the state or federal level on these issues. Poll participants expressed surprising agreement that lower income communities are environmentally degraded and should be helped, showing a suburban awareness and concern for urban residents. Conversely there was surprising support from urban minority groups, particular Latinos, for saving rural habitat and open space permanently, as our responsibility for future generations to inherit a preserved ecology.

While mostly living now in single family detached suburban homes, many polled in the series would choose to live in different kinds of communities and between 30% to 45% of Californians would choose a smaller home on a smaller lot, or a townhouse, or an apartment, if located near transit, parks, and walkable services. Since the poll, many articles in both professional journals and mainstream press have noted a major “back to the cities” movement that seems to be attracting a broad range of family types, generations, and social groups.

To see if the 376 entering students in my class in the College of Architecture and Environmental Design mirrored the opinions of California adults, I used the Blackboard system to give a similar poll. The results confirmed my speculation that our students have the interest and potential to be in real professional and civic leadership of the sustainability movement, and fulfill our mission to train and equip this generation to help improve our future.

When asked if finding a house that was affordable for a family like your own was a problem in their community, 82% said it was either a big problem or somewhat a problem. About 79% find population growth and development in their region a big problem or somewhat a problem, and 96% said the same about the world. They share with adult Californians a similar belief in the seriousness of global warming at 73%, and they support a variety of smart growth measures to improve land use planning and economic
development patterns and prioritize spending for social programs over roads during budgetary shortfalls by a wide margin.

Significantly, in a series of questions about the quality of parks, schools, and economic revitalizations, the majority agreed that low-income and minority neighborhoods are in greater need and get less attention than they should.

Perhaps most heartening, 36% indicated that the environment will be a major focus for them in their future profession, and another 47% agreed it is going to be important to their professions, while not necessarily being their major personal focus. Two thirds also rank environmental issues as either an important measure or the most important measure by which they look at candidates for elected office.

The environmental concerns of our own citizens and the attitudes of our students inform us that we have the responsibility and the capability here at Cal Poly to produce the next generation of technical and professional leadership that will be planning, designing, and constructing more healthy communities, which will feature a sound economy, healthy environment, and social equity.

And our graduates will be instrumental in the creation of places and spaces that are aesthetically and emotionally compelling as well. Art, design, and culture are integral to the development of sustainable communities. "We are sensuous creatures," according to E. C. Wilson as quoted by David Orr, "and we develop an emotional attachment to particular landscapes and communities." People and businesses want to participate in life and work in communities that are aesthetically attractive, culturally diverse, and socially invigorating, as Richard Florida has shown in his *Rise of the Creative Class*. There is a remarkable similarity between the models of green, smart, and equitable communities that sustainability advocates seek, and the wondrous and compelling towns and countryside that nurture creative thought and attract entrepreneurs and innovative industry. It appears from my read of Florida's work that the conditions of a sustainable community also constitute the most fertile place for a sound economy to constantly revitalize itself.

David Orr reminded us that, "the problem is not how to produce ecologically benign products for consumer society, but how to make decent communities of people who do not confuse what they have with who they are." Ultimately, this infant but vigorously growing sustainability movement is at its core a health and livability movement, and as so has the potential to provide a unified vision in a highly divided world. It simply must succeed. Enormous as this charge may be, I believe Cal Poly by virtue of its history and mission, its physical and intellectual assets, and its extraordinary students, may play a seminal role in the evolution of this world-wide sustainability movement. We cannot afford to believe otherwise.