# From 50,000 Feet on Down: Putting Change in Context

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**King County Building Summit:** 

**Dollars and Sense Tools to Green Your Project** 



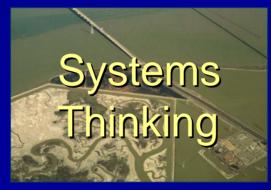
### Some Background...







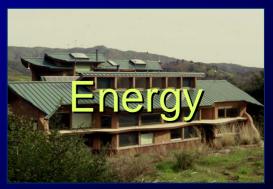












### DCAT's Way of Working

Over the years, DCAT has evolved a way of working that creates a greater likelihood of success. It's built around concepts of whole systems, common ground, helping people see what's possible and what's connected to what.

I mentioned briefly in my keynote talk that we had developed a three-phase approach to our work - Awareness-building, Capacity-building and Transfer of leadership.

I'd like to talk a bit more about that here.

### Seeing Systems of Systems

English does not contain a suitable word for "system of problems." Therefore I have had to coin one. I choose to call such a system a "mess." The solution to a mess can seldom be obtained by independently solving each of the problems of which it is composed.

- Russell L. Ackoff

Or, more simply put...

Optimizing components in isolation tends to pessimize the whole system.

- Paul Hawken, Amory & L. Hunter Lovins

### How to Not Pessimize the System?

Building codes typically optimize components of a building in isolation, often pessimizing both the building and the systems to which it's connected.

To truly optimize buildings requires considering the whole system of systems - including the human and natural systems in which buildings are embedded. New or old technologies must be viewed this way to see their entire risk profile, not just the narrow criteria we're accustomed to using.

### Buildings are Systems of Systems

Buildings exist in relationship to everything else, affecting and affected by flows of energy, matter, information, living beings, money and time. They are extremely interconnected...and they're not static.

But, there are two aspects to the concept of the lifecycle of buildings, one related to the risks and the other related to the costs. Lifecycle costing is a crucial tool, especially for public buildings because the O&M costs are as long-term as the building itself and actually slightly longer...

### Acquisition of Resources through Demolition & Beyond



Our success is based on our collaborative approach:

Build on common ground to develop awareness of the risks and unintended consequences inherent in current practices and of the need for change.

Build the capacity for change through education, training, information resources, and inviting involvement of all stakeholders in the code development process.

Transfer leadership for this ongoing work to those organizations with responsibility for and commitment to incorporating sustainability into the work of safeguarding public safety, health, and welfare.

Build on common ground to develop awareness of the risks and unintended consequences inherent in current practices and of the need for change.

By "common ground" we mean a more dynamic concept - seeking to understand the "path of commitment" of the people we're seeking to influence. In other words, understanding as fully as possible what they are committed to.

We then look at where our path of commitment and theirs overlap, and if there is any authentic common ground, we construct our engagement with them as close to the center of their path of commitment as we can while maintaining the integrity of our commitments. This enables us to present information in a way that it is hard not to ultimately see as in alignment with their goals and values. This can be a powerful way to engage with people who might at first appear to be adversaries.

With the building codes work, we created the alignment with our common goal of creating safe buildings. We expanded their point of view by showing them additional risks that were being ignored by their process.

That opened the door for substantive dialogue and much more, allowing us to create awareness about the need for change.

Build the capacity for change through education, training, information resources, and inviting involvement of all stakeholders in the code development process.

Here we used other strategies including helping them see linkages that were invisible to them before, and helping them see what was possible when they shifted their understanding of risk and their understanding of the larger possibilities for their own work.

### An Example...



#### Paseo Colorado Project Pasadena, California

The Paseo Colorado mixed-use development is 570,000 ft<sup>2</sup> (53,000 m<sup>2</sup>) of retail space and 400 rental apartments in a revitalized area of downtown Pasadena, California. The only way to achieve the City's Civic Center Task Force redevelopment goals—historic restoration of the open-air mercantile street and "urban district" mixed-use—was to design residential stories "light" enough to bear on the existing retail structures. An innovative performance-based code approach allowed a fire-safety engineering firm to model and design a cost-effective, alternative light-gauge steel frame structure that satisfied the builder, the building owner, and the intent of the code.

Photos: Ehrenkrantz Eckstut & Kuhn

A Densglass Fireguard wall will provide 3-hour separation between the theater and Block C housing.

This view of the Fountain Court area shows the start of light-frame residential construction above existing retail spaces.





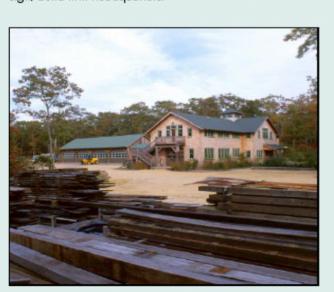
The Paseo Colorado project covers several city blocks in downtown Pasadena, California, occupying most of the center of the photo above.

## Making Visible What's Possible

#### Island Cohousing

Martha's Vineyard, Massachusetts

In order for the South Mountain Company to move forward with this combined cohousing/single business development on Martha's Vineyard in Massachusetts, ten separate zoning restrictions needed to be overcome. The result is a cohousing neighborhood of 16 single-family homes, a "common house," and other communally owned facilities on 29 acres (12 ha); and offices, workshops, and storage facilities for a design-build firm on an adjoining 6 acres (2.5 ha). Today, because of the zoning changes enacted as a result of this project, an identical project would be in full compliance. Key features include clustered housing, composting toilets, 13-foot-wide (4 m) roads with porous paving, and graywater systems for both the cohousing and the design/build firm headquarters.





Photos and rendering by South Mountain Company



Island Cohousing's 16 homes and common house are tightly clustered on a small portion of the 29-acre (12 ha) site (see rendering above).

Creative detailing, such as shown on the staircase at left, gives the small houses unique character.

South Mountain Company relocated its offices and wood storage yard (see far left) on an adjacent 6-acre (2.5 ha) lot as part of the project.

## Making Visible What's Possible

Are you familiar with City Repair in Portland, Oregon?

This is an organization that is transforming neighborhoods and their relationship to city government, between neighborhoods, between neighbors.

What City Repair is doing is making visible what is possible.



### Making Visible What's Possible

City Repair inspires neighbors to do things that the City of Portland wanted to accomplish but couldn't afford to do - but which the City opposed until they realized that their regulations and rules were working a cross purposes to their goals.





Transfer leadership for this ongoing work to those organizations with responsibility for and commitment to incorporating sustainability into the work of safeguarding the public.

The third phase happens automatically if you've done a good enough job in the first two phases. But this is where it is important to make sure that people are empowered with both the authority to take on leadership roles and support for taking initiative and appropriate risks.

Most regulatory entities are extremely risk averse. Yet progress most often comes through trial and error - meaning failure, learning and corrective action. Systems that don't allow appropriate risk and failure tend to create catastrophic failures.

So a big challenge is learning to accurately and honestly share information about what works, what doesn't work and why. This also requires strong leadership, but it happens.

### What If We Could Inspire People to Change?

There is an opportunity to re-envision the role of building departments (and similarly, other regulatory agencies) - from being the "building police" preventing bad things from happening to becoming effective community resources for the best practices.

Imagine if code officials were psychologically partnered with those designers, builders and developers pushing for more sustainable solutions?

### The Codes Work is Only Part of it...

Barriers remain - mostly "institutional" not technological - problems of education, practice, regulation, habits of mind, missing information and feedback loops - extending across the full spectrum of design and building-related sectors.

There is great work to be done at all levels. Much of it requires people willing to behave a bit outrageously and take some risks to address other risks. This possible within a big-picture, multi-generational point of view.

### The Codes Work is Only Part of it...

Our secret weapon is remembering that the way to subvert the dominant paradigm is to have more fun than they do and make sure they know it!

### Thank You!

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And please visit our website: <a href="https://www.dcat.net">www.dcat.net</a>