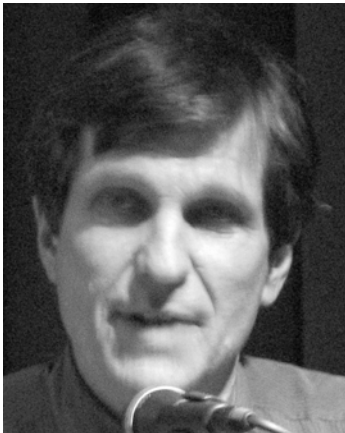


Communities By Design, a
nonprofit 501c(3) training and education
organization, in cooperation with the
City of Redwood City,
is pleased to present:

The Forum *at Redwood City*

A CONTINUING CONVERSATION ON CITY DESIGN



ENVISIONING URBANISM :

Promoting Sustainable Communities
Through Photo-Simulation

2008-09 SEASON: FORUM #7
THURSDAY, APRIL 2, 2009
LITTLE FOX THEATER
2209 BROADWAY
REDWOOD CITY
6:00 P.M. - 7:45 P.M.

On April 2, 2009, the City of Redwood City and the nonprofit “Communities by Design” held the seventh presentation of the 2008-2009 Forum season. **Steve Price**, Principal of Urban Advantage in Berkeley, CA, discussed how to promote sustainable communities through photo-simulation in his presentation, “Envisioning Urbanism.”

Photo-simulation is a method of changing a photograph to produce a photo-realistic image that simulates some type of change over time. As applied to city planning and urbanism, photo-simulations show progressive improvements based on a particular planning policy to communicate the scale of improvements of a place over time, and allow the improvements to be easily understood and accepted. In comparison to other media such as 3D modeling, photo-simulations look more realistic and are better at showing the importance of small design changes.



- Steve Price,
Urban Advantage

Mr. Price demonstrated how photo-simulations are created with Adobe Photoshop software by starting with a streetscape image, then adding components such as street trees, light fixtures, and shadows. Components of the photo-simulation are organized in layers that can be manipulated and organized to control changes to the original image. Mr. Price toggled layers on and off and saved these layer states to demonstrate how he captures different stages of improvement to the original image. While demonstrating the capabilities of Photoshop, he also discussed the techniques he uses to make photo-simulations realistic and believable.

When Mr. Price takes photographs on-site, he tries to standardize vantage points to keep perspectives of buildings consistent so the components of the photograph can be used for multiple photo-simulations. When the components such as light posts, trees, etc., are extracted from the photograph, he catalogs them in a database and associates keywords to them so they can be recalled for future photo-simulations. Additionally, when he visits a site, he takes photos of the surrounding neighborhoods to capture the character of the place to introduce improvements in his photo-simulations that are consistent with the surrounding context.

Paying attention to the details and making small, but important decisions makes photo-simulations successful. If it is winter and the photo-simulation is representing a cold environment, people should be dressed accordingly to reflect that environment. Leafless deciduous trees are appropriate as opposed to deciduous trees with full canopies. Shadows should not get darker when they overlap and the shadows should project from their sources at uniform angles.

In addition to showing how photo-realistic simulations are created, Mr. Price also discussed the ethics of his simulations. Mr. Price believes that cities ought to be treated like compositions, and photo-simulations should be used to represent them and show how they can be tended and improved. Mr. Price's photo-simulations only represent improvements consistent with smart growth policies and good urban design principles, and he works closely with planners to decide how design interventions can be made to promote these principles. In planning for simulations, he addresses the kind of jobs that will be created, how shade cover contributes to street enclosure, and how people are generally going to interact with the proposed environment.

"Steve Price is the only guy I know who has a policy on the ethical use of pixels."

*- Steve Lawton,
Economic Development Director,
City of Hercules*

When addressing a vision for complete streets, Mr. Price considers the street uses and the potential for more multi-generational bike lanes. Whereas American bicyclists tend to take on a certain look – the youthful, athletic look that characterizes a small fraction of the population – cities in Denmark and Japan use separated bike facilities within the streets and have bicyclists of all ages using the streets. Thus, in simulating urban environments with complete streets, Mr. Price shows separated bike lanes with people of all ages and sizes using them.

When photo-simulations are well designed and executed, they have the potential to change public opinion. In planning for one simulation, the group Mr. Price was working with didn't want to include public transportation options in the photo-simulation. But when he convinced

them that it would be easy to add a trolley to his photo simulation, people became intrigued by the idea and began to imagine and explore the possibility of a trolley.

In another scenario, the client working with Mr. Price thought that while the simulation should be consistent with smart growth policies, simulating buildings with three stories wouldn't be compatible with the city's character. When Mr. Price was given the liberty to just

“Plan based on what looks right, as opposed to using metrics and other planning tools without visualization.”

- Steve Price

“do what looks good,” he included a three story building that the client didn't even notice until it was pointed out to him. Thus, photo-simulations can convey more than words and can overcome pre-conceived opposition to things like density and building heights.

In conclusion, carefully done and applied photo-simulation is a powerful tool that can spark dialogue, change public opinion, bridge the gap between planning policies and built form, and help achieve sustainable urban planning goals.