Architecture Goes Green
Designing with the Environment in Mind

Dutton’s to Close April 30
Green Design

KATIE GRIM talks to the Studio of Environmental Architecture’s David Hertz to get the lowdown on green design. A model for the environmentally conscious, the Santa Monica-based firm specializes in the design and construction of sustainable residential and commercial structures, and is the winner of both the City of Santa Monica’s Sustainable Leadership Award and the Eco-Home Network’s Sustainable Living Award.

Q: What sparked your interest in green design?
A: I grew up surfing in the Santa Monica Bay and became acutely aware of the impacts that the built environment has on the natural environment. I attended architecture school during the oil embargo and energy crisis in the late ‘70s and gained a fundamental education in sustainable design.

Q: What one design change can people incorporate into their homes to make the most difference in reducing their environmental impact?
A: The best way to curb energy usage is through conservation. Reducing electrical consumption by turning off lights and unplugging appliances that create phantom loads can make a huge difference.

Q: You’ve incorporated a number of energy-efficient features into your firm’s office. Can you tell us more about these?
A: My firm, the Studio of Environmental Architecture, is carbon neutral and is a 100 percent net zero energy, solar-powered practice. We have the only West Coast research station for monitoring green roofs, and we employ everything from automated daylight controls on dimmable fluorescent lighting to pervious concrete for 100 percent onsite storm water retention. We also use solar electric bicycles for local transport.

Q: One of the ways that you reduce energy usage in homes and businesses is to incorporate natural ventilation and natural lighting. What are some of the methods you use to do this?
A: In both our residential and commercial projects we employ natural ventilation and natural lighting strategies to minimize artificial lighting and mechanical ventilation. We use thermostatically controlled operable high windows and skylights that work to exhaust hot air out of the building.
Real Estate

and draw cool prevailing breezes in, while also providing lighting during the day.

Q: What are some of the keys sustainable features that you incorporate into residential structures?

A: I have made houses incorporating everything from prefabricated high-performance wall systems used in refrigeration buildings to huge cut sections of a 747 airplane! I also use recycled materials or renewable or reclaimed materials that are non-toxic and locally-sourced. I am very interested in making the home a place for restoration and relaxation and trying to blur the inside space with the outside.

Q: And for commercial structures?

A: For commercial projects we put more emphasis on energy efficiency in daytime activities. Some of the features we include are natural ventilation, daylighting, drought-tolerant landscaping, pervious concrete parking lots, and the use of healthy interior materials that don’t emit gas. We also install waterless urinals, dual flush toilets, and air blades for hand drying.

Q: You’ve done several remodels to houses on the Westside. What designs did you introduce to curb their environmental impact?

A: Our projects on the Westside take advantage of the remarkably equitable climate by being responsive, and are in effect shaped by their site – the views, solar orientation and prevailing breezes. We evaluate everything from the recycling of construction and demolition waste to the use of organic and non-toxic cleaning materials and bedding.

Q: Is green building cost-effective?

A: Green building is more cost-effective if one has an art for the long view. Yes, some things, like more efficient windows, may seem more expensive as a first cost; however, if you look at the building as a system, you soon realize that the “more expensive” windows are actually far more economical over the life of the building because of the energy saved. Some of the paybacks come within a few years on energy-efficient or solar items, especially when rebates and significant tax credits are considered.

Q: What can we expect for the future of green design?

A: Now that people are aware of the significant impacts we have on the planet, there are exciting opportunities and new technologies that we will hopefully see in abundance. As more of these products are used, their cost will come down, as is the case with bamboo flooring and materials like zero Voc paint, both of which are no more expensive than non-renewable or toxic materials. Hopefully in the future we will be smarter about the resources we use.

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