

TIME



Style & Design

Green Living

Is Sustainability the New Luxury?





The Good Life

An environmentally sensitive home overlooking the Pacific shows how to be virtuous and beautiful

By Richard Lacayo

IT'S A FUNNY THING about houses. People who have the means to commission an architect-designed home might be expected to care about issues other than big floor plans and marble countertops. For instance, they might be expected to care about whether their new place increased our dependence on fossil fuels or used wood from destructively clear-cut forests. And if altruistic motives don't move them much, they certainly might care about the harm to themselves and their families from homebuilding materials that emit toxic chemicals into the air of their nice living rooms. Could it be that one reason those women on *Desperate Housewives* are so desperate is that their houses are full of polyvinyl chlorides? You might suspect there's even worse stuff in their breast implants, but still.

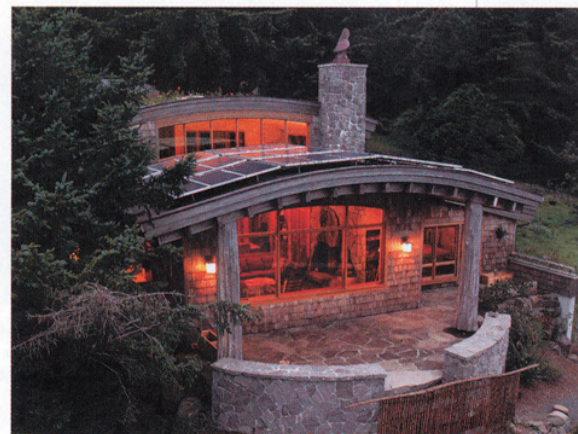
Six years ago, the U.S. Green Building Council, an environmentally conscious industry group, adopted a rating system to promote green practices on "institutional" projects like office buildings and factories. In recent years, the council has been developing a similar set of standards that it hopes will be observed by homebuilders, especially the big companies that put up 25% of all new houses. Meanwhile, there are people who aren't waiting for anybody else to set standards. They have standards of their own. For decades there have been individual homeowners dedicated to incorporating green principles into their custom-designed homes. This is not a mass movement. It's an advance guard,

The lower roof in the Cannon Beach house, left, holds solar panels, and the upper roof is a shallow meadow that keeps the house cool; the interior framing, above, is timber from windfallen trees

homeowners here and there around the country with both the awareness and the means to build green, a practice that can incur extra costs up front but can pay them back over the longer term in energy savings and other advantages, in addition to its benefits to the wider world.

For now, the clients more likely to insist on a green house are people who care about nature and who want something more appealing to the eye than a tract house with a few solar panels slapped on top. That would describe the couple who commissioned Nathan Good, an architect based in Salem, Ore., to design their weekend home in Cannon Beach, a small town on that state's northern coast. The clients, who prefer not to be identified by name, have a long history as advocates for environmental awareness. After losing their weekend cabin in a fire, they began to envision a new house for the same site, a hill that overlooks the Pacific and a nearby marine-and-bird sanctuary. In a recent e-mail to *TIME*, they described what they had in mind from the outset: "rustic materials compatible with other homes in the community, [something] snuggled into the landscape, low impact on neighbors, no or low toxic impact on the carpenters, low impact on the site—spacious feeling without being big, cozy without being cramped."

The couple hired Good, who had worked on other environmentally sensitive houses. "But this project was by far the most aggressive in its use of green elements," he says. Two decades ago, a green house was one that had a couple of solar panels. Since then, the formula has become a lot more detailed. The preferred lumber always comes from sustainably harvested forests, meaning woodlands that have not been clear-cut. For some parts of the Cannon Beach house,





Kitchen, top, constructed with sustainably harvested cherrywood; stairway treads, bottom, supported by a beech limb salvaged from another building project, and a windfallen incense-cedar tree trunk

including the interior heavy timber framing and flooring, the wood is actually from windfallen trees. The exterior shingle walls of the house conceal Durisol interior concrete forms made of recycled wood chips, insulating material and cement. The hollow cores of the forms are filled with concrete to become walls that resist fire, termites and rot. Even the concrete has a high content of fly ash, a waste by-product from power plants that requires less energy to produce than standard cement. Plus, there was minimal reliance on toxic chemicals in things like adhesives or piping. "Anything that ends in an 'ethylene'—you definitely want that out," says Good. "Also, no chlorines, no benzenes."

A house this unusual and innovative required something like a daylong teach-in. Before construction began, Good, his clients and their contractor got a local lumberyard to play host to a lunch where they spoke to their subcontractors and suppliers. The aim was to explain what this project was all about and to subdue any concerns about things like the availability of green materials and whether water-based adhesives could be counted on to perform as well as the ones containing toxins. They also brought in a representative of the Oregon Department of Energy, which ended up working closely with the clients to maximize the energy-savings potential of the home.

The 2,268-sq.-ft. house that they completed last year has three bedrooms, 2½ baths and an open-plan kitchen-dining-living area with a cathedral ceiling. It also has a pair of stepped roofs aligned in parallel

curves, each serving a different environmental purpose. The lower roof is covered in solar panels. The notoriously cloudy coast of Oregon might not seem like the ideal place to draw power from the sun, but because of a combination of serious insulation with sophisticated systems for generating heat and storing it in geothermal wells—basically warm holes in the ground—over the course of a year, the house actually produces more power than it consumes. Or, as Good puts it, "there are days when the electric meter spins backward." That means not only less of a drain on the state power grid but also cost savings for the owners, thanks to a billing-credit arrangement offered by the state of Oregon to businesses and homeowners who produce surplus power.

People want something more appealing than a tract house with a few solar panels slapped on

The upper curve is even more ingenious. It holds a vegetative roof—basically an overhead meadow. To build it, the contractors covered a plywood surface with a drainage mat, which was then layered with four inches of soil and vermiculite and planted with perennials like sedum and wild strawberry. The roof-meadow helps keep the house cool, controls storm-water runoff and gives neighbors up the hill something more interesting to look at than shingles. As a bonus, they get to watch the owners periodically weeding their roof.

Because the number of architect-designed custom homes in the U.S. will always be small, even if all of them were designed to minimize their impact on the environment, not much would change. It will matter most when large-scale developers go green. Until then, places like the Cannon Beach house serve as examples of how green building can be done and provide ways of getting out the message to other households—even the ones where everybody is preoccupied by scheming and subterfuge. What we mean is, is it too much to hope for a day when one Desperate Housewife drops in on another and says—as sweetly as possible—"Love the low-formaldehyde plywood in your kitchen cabinets, dear, but are you sure that's a sustainably harvested wood in those floorboards?"