

Welcome Guest

How Green is a "Green Home"?

December 27, 2007 · Filed under [Green Building](#) by [Leslie Berliant](#)



Green Homes; New Ideas for Sustainable Living (Harper Collins) by Sergi Costa Duran profiles 35 "green" building projects from around the world. The book starts with two quotes, one by Homer and one by Ayn Rand, so I was predisposed to only half like it. The author sees "the modern green home [as] a tug of war between place and personality", and sets out to examine how this tension is resolved in green



Domespace - France

building projects that also include a modernist aesthetic.

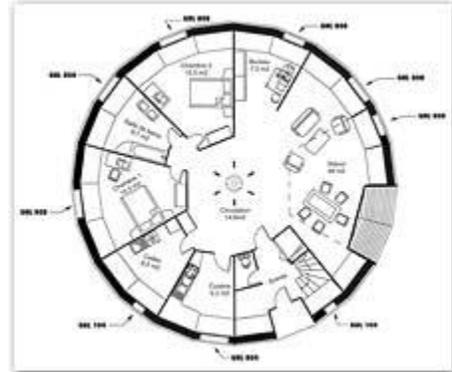


The book examines four main areas in regards to the houses it profiles; technique – how is it made, systems – how does it perform, aesthetics – how does it look and context – how does it relate to its natural and cultural environment. The houses are distributed across North America, Europe and Australia and include single family homes, multi-housing units and some that are beyond category.

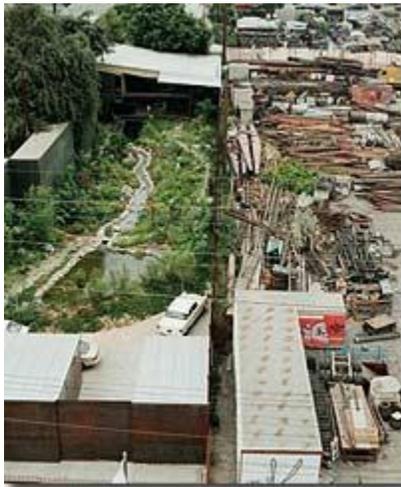
The green within the projects varies, as well. Some are models of energy efficiency, while others use reclaimed materials and natural habitat. The author also questions the "green" credentials of pre-fab asking "can a project be truly green when it is designed specifically without a site in mind?" I personally take issue with the sizes of some of these homes and question whether a project can be called sustainable when the sheer amount of space it takes up is so far beyond what the people living there really need.

The self-sustained modules in Portugal, designed by the firm Cannatà & Fernandes Arquitectos, are quite interesting as short-term housing solutions. Their shape is like a stationary motor home, but they are certainly far more sustainable and less toxic than the trailers that Hurricane Katrina survivors must now survive. They also have a variety of other uses, such as small store fronts, which is nice, and they are self sustained from an energy, water and waste perspective. Built as show models, it is unclear whether they have actually been tested as residences.

Always partial to domes, the Domespace in Quimper, France, built and inhabited by Patrick Marsilli is very cool, inside and out. It even rotates with the sun and the amount of space it takes up is minimal because it maximizes its footprint. Cork insulation, FSC certified wood, passive solar for heating and cross-ventilation for cooling, it beats the geodesic domes in Davis, California for style without compromising the integrity of its impact reduction. And the central fireplace looks like a work of art.



Domespace: click pic for access to many plan variations



Seatrain: a little piece of heaven, bordering hell

The Seatrain house in Los Angeles is one of my favorites based on location alone. Set in an area of the city known as the Brewery, its garden is a green oasis next to an abandoned industrial lot. The materials used in its construction are as local as they come; industrial shipping containers, grain trailers and local steel. Plus the project was finished in under 3 months.

I'm ambivalent about Between Alder and Oak designed by Andreas Wenning/Baumraum and located in Bad Rothenfelde, Germany. Trees have enough to do, what with cleaning the carbon dioxide from the air, surviving environmental toxins and living for hundreds of years, do they really have to support our

houses now, too? The only thing making this house environmentally friendly is that the materials are natural (though not FSC certified wood) and recyclable. On the other hand, who doesn't want to live in a treehouse?

The Walla Womba Guesthouse in Tasmania (1+2 Architecture) is a work of art in steel and glass. It manages to stay free from the water, sewage and power grids through rainwater collection, passive solar and solar photovoltaic, and a septic tank that filters the water back out. The large covered porch is a great touch, and the views appear to be spectacular.

I have to include the Kappe + Du Z6 House in Santa Monica because I have been there. It was the first residence to receive a LEED Platinum rating and was the brainchild of Steve Glenn of LivingHomes. The house has some amazing components, including radiant heat, a green roof,



Seatrain: interior

state of the art energy efficient appliances and more. However, I will say that at two–stories and 2480 square feet, on size alone, I have an issue with its sustainability. Also, the night I was there, it was absolutely freezing inside. I have not been in the EHDD Architecture F10 House in Chicago, but the smaller size, including a much more narrow footprint and inner city location, makes it more sustainable in my eyes, despite not having all the bells and whistles. The rooftop herb garden is a very nice touch, as well.

Finally, the Zero Carbon House in Shetland, Scotland, built by Ken Fowler and Michael Rea, was not zero carbon in its construction, but uses wind power and has a hydroponic greenhouse for year round food production. The household vehicle is electric and it seems the idea is to minimize reliance on the outside world in order to avoid carbon emissions. Without growing all of your own food supply, however, that is impossible.

Bottomline – the book is beautiful, as are the homes in it. What makes them green, however, is inconsistent. Some, like the Tree House, are designated green based on location and use of natural habitat alone. Others are green based on building materials, but not every day energy and water use. Others have all of the “green” bells and whistles like solar and water reuse, but take up an incredibly large amount of space (for some truly tiny houses, check out [these](#)). At the end of the day, if we could combine the best of each of these homes in new construction, we could certainly improve the carbon and environmental impact of both building and living in these houses.