

... are solid structures built from renewable, salvaged materials found close to home.



... are easy to create, go up quickly, and are adaptable to a wide variety of locations.

... are passively heated and cooled.



... are well-insulated using lightweight materials like feather, cotton, and yarn that trap air between the layers.

... are well-built, efficient and practical.

Birds have successfully tended to their families in good homes for thousands of years. If they can do it, why can't we?



PROJECT | Stanfordsville Farmhouse, 3450 Square Feet (2004)

Author Janine Benyus spells out this line of thinking in her acclaimed book, *Biomimicry: Innovation Inspired by Nature*. Since nature has created some incredible architecture she was able to pinpoint a few fundamentals that would assure people similar results: 1) form follows function; 2) use only what is needed; and 3) run off the power of the sun.

FORM FOLLOWS FUNCTION

It's a phrase that every architecture student learns as the bedrock principle of retro-modern design. Back then, it was said there was no need for decorative columns if they served no function, no need to have a pitched roof if you could get away with a flat roof, no need to walk up a flight of steps to get to the front door if you could walk in level to the ground. Form Follows Function gave us the modern homes of the 1960's. Today, there is a more modern way of interpreting that solid advice: Shelters should be designed to suit people's fundamental needs and enduring aspirations—they should be efficient, practical and expressive.

Why waste resources and space on rooms that serve no function for your everyday life? *Why* build a home that doesn't make the best use of free resources like sunlight, summer breezes and open views? *Why* build a home whose appearance has no enduring character?

USE ONLY WHAT IS NEEDED

This refers to the remarkable good sense of Nature. Who doesn't love it when they accomplish a task efficiently, without wasting time or steps? It's just plain smart.

Houses that can turn on lights, crank up the stereo and raise the blinds are labeled "smart houses"—but are they really? A green home can provide all the comforts and conveniences of a conventional home using only a small fraction of our natural resources. A green home can rely entirely on the way it's built to keep its occupants warm or cool. Like a giant thermos, a well-built home manages to keep the temperature of the interior so constant and stable that the heat hardly ever needs to be turned on. Imagine never having another heating bill. Now *that* is a smart house!

RUN OFF THE POWER OF THE SUN

We all love sunlight. Nature flourishes from the sun and so do people. Sunshine lifts our mood and provides the food that fuels us. A home can be shaped with windows and overhangs that are precisely located to allow the sun to light, heat and even cool through airflow, all for free. A home can be planned so that even the slightest breeze can be accelerated by manipulating the interior air pressure.

When there is a constant and strong breeze, there is no need for air-conditioning. Like the sun and the wind, the earth itself offers a natural way to heat and cool. Homes that work their way even partially into the earth take advantage of the earth's constant temperature without an investment in geothermal gadgetry. Learning how to take advantage of nature's free energy is what green architecture is all about. 🐔