GREEN BUILDING: Environmentally-friendly wood revolutionizes building industry

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Part 2: Sustainability and wood

Building materials derived from our natural world were created as a tool for us to survive. God gave humanity, his most prized creation, dominion over all things of the Earth so we might take care of them, and in turn they nurture us. Wood is the most used and abused material in the building industry. It not only provides the envelope of our buildings, but it keeps us warm (along with numerous other uses).

Wood is meant to be a sustainable resource. Forests were designed to regenerate themselves within our lifetime. Mankind’s demise, however, has been to poison and destroy our forests, in some cases faster than they can be regenerated. Because our natural resources are becoming constrained, wood is increasing in value and becoming more expensive. This throws a kink in the building industry, increasing the cost of building. The certification for “sustainable approaches to forestry” are also expensive.

It is vitally important to decrease our dependence on fossil fuels and nonrenewable resources of energy and instead more on those that are renewable, but in a nonthreatening or sustainable way. The focus of this article is to introduce products and ways that wood is being used in more sustainable ways in the building industry. A minimal definition of sustainability in relation to the building industry is: “Don’t build at all.” Applying this definition to sustaining our wood forests would state: “Don’t use wood at all.”

Have you seen a house constructed without the use of wood? It is a rarity. A couple of natural grass-derived materials are hitting the American market. They have been around for quite some time, used by countries that do not rely on a manufacturing industry to provide their materials. They rely on the land around them.

Ancient cultures, for example, have always relied on grass, mud, cob, bamboo and straw as their materials. Bamboo and wheatstraw are both being engineered, made into panels and flooring mainly for interior use in the United States. Natural building techniques are also becoming more popular in the United States but should be scrutinized as an appropriate method in mixed and high humid climates like Western North Carolina.

Another definition of sustainability states: “Built environments that preserve and create safety of our natural resources for generations to come.” This is where sustainable harvesting of wood must come into play. Aggressively logging our forests can simply change to selectively cutting and preserving the ecosystem of our forest. It is that easy and that hard of a change, but vital to the health of our Earth and the people on it.

Sustainably harvested wood sources are available in two ways; certified and noncertified.

Certification is made available through FSC (Forest Stewardship Council), which sets international standards for responsible forest management and accredits independent third party organizations that can certify forest managers and forest product producers to their list of standards. Its trademark provides international recognition to organizations that support the growth of responsible forest management. There are two types of FSC
certificates available. Certification provides written proof and it also gives manufacturers eligibility to label their products with the FSC logo. Columbia Forest Products (www.columbiaforestproducts.com), one of the largest wood manufacturers in the United States, has an extensive line of certified products.

Noncertified sustainably harvested wood sources include plantation-grown forests that are selectively cutting and milling for construction use. These are usually pretty small, often “mom and pop” lumberyards offering more personalized service and architecturally interesting wood products. There are also a handful of building companies that selectively cut and harvest trees directly from the construction site and reuse the wood in the building process. This method has actually been going on for many years and gets my vote as the most sustainable approach to today’s culture.

Why? Since wood is the most used material in building, this means that it relies heavily on transportation, which creates pollution and continued addiction to fossil fuels to get us what we need. Using trees from your own land to build reduces that culprit. It can also save some money in the process, depending on the planing and machining process that is needed for a given tree to be made into your kitchen floor!

Sustainability is a worldwide concern which trickles down to our individual efforts to create buildings that do minimal damage to our God-given environment.

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