



Innovations In Green Buildings

Constructing eco-friendly buildings is a natural direction for sustainability given the high impact and visibility of these efforts. It can help buildings meet the necessary qualifications for LEED (Leadership in Energy and Environmental Design) certification, a globally recognized symbol of sustainability achievement and leadership. “According to the United States Energy Information Administration (EIA), buildings consume almost 40% of the total U.S. energy consumption and generate 30% of greenhouse gas emissions.” (Construction) Many innovations have cropped up that aid in reducing waste and maximizing energy conservation, from biodegradable translucent wood that can replace glass for windows to the incredibly strong spider silk that is stronger than steel and ideal for labs and building tiles. (Construction)

Rainwater Harvesting

“Rainwater harvesting systems collect rainwater and siphon it into deep pits or wells, reservoirs with percolation or collect water from dew or fog.” (Engineering) Collected rainwater can be used to flush toilets, launder clothes, or supplement standard water supplies for drinking after treatment. Rainwater harvesting systems are easy to install for both commercial and residential use and can reduce water bills and save potable water for consumption.

Recycled Construction Materials

Any materials that are from a previous build site constitute recycled building materials. These are advantageous to the environment and usually save on costs. In fact, “[sustainability] is among the top features that put a premium on real estate,” so you are increasing the value of your house while being environmentally friendly. (Building Green) Reclaimed and salvaged materials from old buildings, especially torn down barns, are gaining in popularity due to the rustic aesthetic it imparts to homes. These recycled materials can often be found at construction sites or at donation outlets.

Green Walls

The most literal of the “green buildings” are those incorporating plants on the outside of the structure to form a living wall. This is accomplished by designing a façade to wrap around the building that holds native plant species. (Spring) Often, these buildings also utilize rainwater harvesting and an irrigation system to sustain the plants. These installations hope to “...mitigate the urban heat island effect, lowering the temperatures around the building by three to five degrees Celsius.” (Spring) Wide-scale implementation could help cities the world over with this problem and boost carbon dioxide capture.

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Works Cited

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