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[A Triumph in Ecological Design: America's First "Living Building"](#)

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Last month I attended a pivotal event: the opening of the Omega Center for Sustainable Living, a progressive environmental center slated to be the first certified "Living Building" in the United States.

The Omega Center for Sustainable Living (OCSL) is the newest addition to the Omega Institute, a nonprofit organization offering a variety of holistic programs on 195 acres in Rhinebeck, NY. Every year, thousands of people attend its conferences and retreats. In the past, they've hosted such renowned speakers as Al Gore, Jane Goodall, Robert Kennedy, Jr. and Eckhart Tolle.

"As Omega moves forward, we will continue to create programs that speak to personal development and cultural transformation through the lens of interdependence," said Skip Backus, Omega's Chief Executive Officer and the central figure behind the creation of the OCSL.

So, what exactly is a "Living Building"?

The "Living Building" challenge was put forth by the Cascadia Region Green Building Council in the Pacific Northwest in 2005. They asked: How can we take the idea of building and really change the world?

These are the requirements they came up with:

- A "Living Building" must be informed by its eco-region's characteristics.
- It must generate all of its own energy with renewable resources.
- It must capture and treat all of its water.
- It must operate efficiently and for maximum beauty.

The Omega Institute decided to take up this challenge, but found many obstacles along the way.

"It went from being a building to a crusade," said Backus. "One of the first things I learned is that we don't make anything anymore. Everything is made somewhere else. But part of the purpose of this building is to move us forward. Sooner or later, these materials will all be available on the local level, and at the same price as the chemically-treated materials."

Despite the vast challenges, Omega triumphed. The OCSL is a beautiful structure that includes a greenhouse, a water garden, a constructed wetland and a classroom. The center supplies all of its own energy and is carbon neutral. It is heated and cooled using geothermal systems, and utilizes photovoltaic power.

But the beating heart of the OCSL is the 4,500-square-foot greenhouse containing a water filtration system called the Eco-Machine. The Eco-Machine was designed by John Todd, a 2008 Buckminster Fuller Challenge-winning biologist working in the field of ecological design. Unlike chemical-based systems, the Eco-Machine is a living system that uses bacteria, plants, snails, algae and fungi to recycle approximately 5 million gallons of wastewater a year. Omega plans to use the Eco-Machine's recycled water to irrigate their campus grounds and gardens.

"I'm asking for a sacred ecology that connects everything to each other," said Todd at the opening. "All the parts of the building are integrated; it's like notes in a symphony."

After the ribbon cutting, attendees were invited into the center to experience the building firsthand. A peaceful harmony pervaded the space; nature's wisdom whispered from every corner.

"To me, the building of this center is a step in finding greater balance in society," said Backus. "What's happening in here is magic. We need to bottle this magic and take it elsewhere, so we can become a more sustainable, loving world."

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