In Partnership with the Sun

Pioneering Stained Glass Windows Provide Solar Energy

By Jeffrey Kraegel

Photo of Sarah Hall by Malcolm Taylor

Mention stained glass and people think of traditional windows in churches – Bible stories frozen in time. Visionary Toronto artist Sarah Hall is out to change that image, with the first stained glass installation in North America to utilize photovoltaic (solar) cells. The installation is the central element of a Wind Tower that will complete a new University Library designed by architect Clive Grout.

Rod Wilson, president of Regent College, UBC, states "With its dependence on the ever -changing beauty of wind, light and colour, the Wind Tower and art glass are a majestic addition to our campus" .

Solar cells are a nearly perfect energy source, as they generate electricity without emitting harmful greenhouse gases. Since they are so durable they can transform a glass façade into a clean, long-lasting energy source. By incorporating them into her art glass, Sarah has given us a window into the future. This promises to be a creative and inspiring innovation. It will advance the design of our buildings, while exploring the connection between the beauty of art and the preservation of our planet and its resources.

At the heart of the design for Regent College, UBC is a luminous column of light, flowing like a waterfall in silvery blues, violet and white. Included in this column is an array of solar cells that will collect energy during the day and use it for the parks' illumination at night, acting as a warm, glowing beacon for the entire community. The solar powered LED lighting system is synchronized to the music of Canadian violinist Oliver Schroer. His recent 'Camino' album, recorded on the pilgrimage to Santiago de Compostela, serves as an inspiration for Sarah's quiet, gracefully moving coloured light.

Artist Sarah Hall has created large-scale art glass installations throughout North America and Europe. She is well known for pioneering new techniques. Sarah was granted an Arts Fellowship from the Chalmers Foundation to support her innovative work in photovoltaic art glass. The first public demonstration of photovoltaic art glass was her work last year at the Solar Decathlon in Washington, DC. Creating work for embassies, sanctuaries and public space keeps Sarah busy with an international schedule of projects, lectures and exhibitions.

"Stained glass has a thousand-year history," she says. "Using solar energy is one way of bringing new technology to an art form that most people consider traditional and unchanging. However, tradition is not for keeping the ashes – but the fire alive."