



Sarah Hall

Let There Be Light

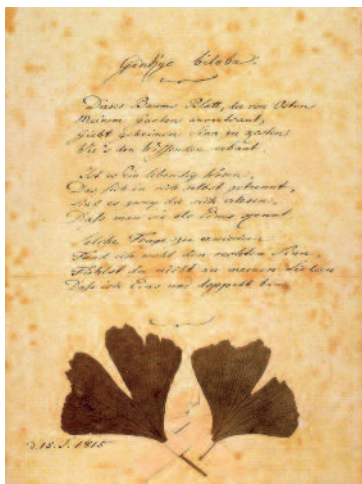
York's newest campus sculpture celebrates daylight ... all night

Michael Todd

THERE'S NOTHING LIKE LETTING a little light into your life — or, in this case, your artwork. Renowned Canadian artist Sarah Hall has done just that. Hall's sculpture, *Leaves of Light/A Solar Art Installation*, is an intriguing glass work that incorporates natural daylight *into* its structure and actually stores it as part of the piece (using photovoltaic cells). Then, at dusk, the whole installation comes alive as darkness falls and it glows, backlighting from within the work's text and design elements that are etched and painted on the several layers of glass that make up the work. *Leaves* graces the north-west corner of one of York's newest structures, the Life Sciences Building, located just east of Tait McKenzie.

The embedded, custom designed blue-grey solar cells were made in Germany and are a perfect match for the innovative sculptural façade of the building itself which is based on the DNA molecule.

Hall is an internationally recognized artist who creates large-scale art glass installations and solar projects. She began her studies at Sheridan College in Ontario and then continued her education in the architectural glass department at Swansea College of Art in Wales. In 2002 she was inducted in the Royal Canadian Academy of art. Among her other installations of solar/photovoltaic art are *Waterglass* (Harbourfront), *True North* (Regent



Overleaf: *Leaves of Light*, design work with various translations of Goethe's "Ginkgo Biloba" poem, Life Sciences Building, York University, Toronto, ON ✦ 2011 d

Left: "Ginkgo Biloba", 1815 poem by Johann Wolfgang von Goethe (1749–1832)

Bottom: *Leaves of Light*, illuminated at night by solar energy, York University, Toronto, ON ✦ 2011 d



Andre Beneteau

College, UBC), *The Science of Light* (Grass Valley Elementary School, Camas, WA), *O Canada* (Solar Decathlon House, Washington, DC) and *Lux Gloria* (Cathedral of the Holy Family, Saskatoon). Hall's work is one of the most recent to join the ranks of many notable pieces on York campus by sculptors such as Alexander Calder, Enzo Cucchi and Hugh LeRoy.

While first and foremost an artwork, *Lux Gloria* at Cathedral of the Holy Family is particularly interesting because the cathedral uses the hand-painted, stained-glass solar panels in order to receive a rebate on their energy costs. The panels produce over 2,500 kilowatt hours annually — about a third to a quarter of the 8,000 to 10,000 kilowatt hours used by a typical home in Saskatoon each year. This project recently won an award from the American Institute of Architects.

Leaves of Light at York's Keele campus, on the other hand, consists of one glass panel with painted imagery, four interconnected solar panels and an interior layer of LEDs. The design elements consist of text (from a poem by Goethe on Ginkgo trees) with images of Ginkgo leaves themselves. According to one source, Goethe gave Marianne von Willemer, an eighteenth century dancer and actor who became a friend of Goethe's, "a leaf of a curious East Indian plant as a symbol of friendship. The leaf is so formed that one does not know whether it is one leaf, divided into two, or two leaves joined into a single one."

Charles Darwin referred to the Ginkgo in 1859 as a living fossil. Indeed, Ginkgo Biloba is the world's oldest living tree, whose existence can be traced back more than 250 million years.

There are a number of Ginkgo trees planted on the York campus, and the Ginkgo motif is used in another building — the entranceway and ground floor of the Chemistry Building — to the south of the Life Sciences Building. Hall decided to incorporate visual references to the Ginkgo and use it as a central motif in her work.

"The Life Sciences building was in construction when I first met with the team to design the project," says Hall. "The cool blue, grey, white palette helped me decide on the silvery colour for the east facing solar cells and dichroic glass. The warm golden colour of the painted panel is a direct counterpoint to the building and gave strength to our idea of welcoming staff and students at night. The imagery was inspired by the golden section and the remarkable Ginkgo tree. Many Ginkgo trees are planted on the York campus — and other artists have referenced it."

The west-facing painted layer of *Leaves* is a combination of hand painting, digital painting and screen printing on glass. The artwork includes Goethe's poem "Ginkgo Biloba" in the original German and, in addition, Spanish, English, French, Dutch, Italian, Portuguese and Japanese. And the word Ginkgo is written in Chinese, Greek, Arabic, Hindi, Persian, Hebrew, Thai, Russian,



Details, *Leaves of Light*, top shows Spanish, bottom shows English translations of Goethe's "Ginkgo Biloba" poem ↻ 2011 d



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Façade from the Life Sciences Building (with newly planted ginkgo trees) and *Leaves of Light* solar panels integrated with the golden section and ginkgo leaves, York University, Toronto, ON ✦ 2011d

Solar cells and art glass being fabricated into panels in Germany



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Bengali and Korean to acknowledge the multicultural character of York itself.

“As a glass artist working in architectural installations, the idea to bring solar into my work came from a few sources which all converged within a couple of years,” says Hall. First, my mentor, Professor Ursula Franklin at Massey College, U of T, encouraged me to explore connections to solar. Her physics colleagues in Santa Barbara had created a wonderful video “Power of the Sun” which she gave me. Second, I had seen many beautiful buildings in Europe created in a technique called Building Integrated Photovoltaic (BIPV) and was convinced it was a great direction for solar. Third, I made connections in Canada, the US and Europe with architects and engineers working in the field of BIPV. Fourth, the studio in Germany where my work is produced made a prototype of art glass with embedded solar cells and encouraged me to create solar work. Fifth, and of great



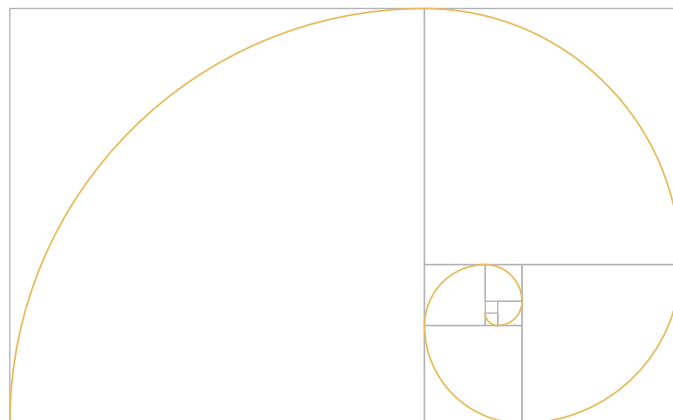
Leaves of Light, evening view of the art glass being illuminated by solar power, York University, Toronto, ON
 ✦ 2011d

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importance, was that I received a Chalmers Arts Fellowship from the Ontario Arts Council which gave me the time and resources to experiment with the integration of solar collection into my art glass projects. I am interested in using solar primarily as an environmental advocacy/educational tool."

Hall has gone on the record in other interviews saying she likes to build a story into her installations so that her works are, in and of themselves, a kind of story. So what was the story she wanted to convey with *Leaves of Light*?

"I think every project I take on generates and encompasses a great story – made from the purpose of the artwork, specifics of the site and architecture, fresh ideas, technical challenges, the process of designing and all of the people involved. With *Leaves of Light*, I wanted to make a connection to the Ginkgo trees on campus, explore the golden section, look at languages overlapping with images, and make solar look beautiful!"



Michael Todd is the former editor of *The York University Magazine*. He has written for *Toronto Life*, *The Globe and Mail* and the *Toronto Star*, among others. He lives in King Township.

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