

## **Q & A**

### ***True North / Lux Nova***

***You recently started using photovoltaic elements in your art glass installations. Why did you do that?***

For the past several years I have been fabricating my art glass installations in Germany. While working there and traveling in Europe I saw many beautiful photovoltaic facades that were well integrated into the architecture of the building. Most of the photovoltaic projects I had seen in North America had an uneasy relationship with the building – looking more like an afterthought than integral element. As the technology advanced to bring the cells into glass modules, I saw a great opportunity to incorporate energy collection into my art glass installations. I was very excited by this idea and received an Arts Fellowship from the Chalmers Foundation to research and integrate photovoltaic into my work.

***Why did you use photovoltaic panels in your work True North /Lux Nova?***

The site for True North / Lux Nova was a perfect location for photovoltaic panels. The facade faced south allowing sufficient and un-shaded area of solar collection. My client, Regent College and their architect Clive Grout already had made considerable commitment to sustainable building thought the design of the Theology Library and its wind tower for passive ventilation. Continuing the theme of environmental concern was a priority for me and the site has very high public visibility.

***What is your vision on sustainable energy and (how) do you try to contribute in this?***

I am interested in bringing beauty and imagination to renewable energy - which I feel needs visual and artistic support in North America. I think our dependence on oil and excessive use of the world's resources is the wrong path, and cannot be sustained. My new work, which incorporates solar energy collection, is an imaginative demonstration that is meant to start changing people's hearts and minds about energy related issues.

***Do you try to live environmentally friendly in daily life and if yes: how?***

Yes, I do try to live in an environmentally friendly way on a daily basis. Our family lives fairly simply, even though we are in the midst of a large North American city of 2.5 million people. Our family shares one small, economical car. We regularly use public transit. We do not use air conditioning and we recycle conscientiously.

***What would you like to do in the future? What direction do you want go?***

I am excited by this new direction in my work. My medium of stained glass has a thousand-year history and using solar energy is one way of bringing new technology to an art form that most people consider traditional and unchanging. Combing these two

makes people stop and think. My current work involves photovoltaic windows for Grass Valley Elementary School in Portland, Oregon. The windows and interior light fixture powered by solar energy will add beauty to the school, and will be an imaginative learning tool on photovoltaics for young students. I am interested to work with Museums for Science and Natural History, and Children's Museums to create site specific community solar projects and civic lighting.

***When did you make your first creation with photovoltaic?***

I created my first photovoltaic panels in 2005: two small art glass windows with integrated solar cells as part of my Chalmers Arts Fellowship research grant. I have been working in the field of architectural glass for 25 years and studied in the Architectural Glass Department at Swansea College of Art, UK... My training and early work in the field was in the traditional technique of leaded and painted windows. Over the past 25 years, I have created almost 1000 windows (throughout North America) and have always been interested in new techniques and enjoy pioneering new advances in our field. I work in partnership with Glasmalerei Peters GmbH in Paderborn and Schueco International as a fabrication partners and their facilities and expertise are invaluable to me.

***'While working and traveling in Europe I saw many great photovoltaic facades which were well integrated into the architecture of the building,' you wrote. Where in Europe?***

The only photovoltaic integrated with art glass I saw before my work commenced was by Klaus Jansen from 2004. It was mostly the facades of building integrated photovoltaics and various architects who have influenced me. I heard Tjerk Reijenga from BEAR Architects speak and show his sustainable architecture in Canada and I have visited him in Gouda. I hope we can work together on a project one day. I also really admire the Fire Station in Houten by Samyn & Partners Architects. Dr. Ingo Hagemann introduced me to architecture throughout Germany which used building integrated photovoltaics. The architecture of Françoise-Hélène Jourda is a significant influence for me. In North America designer Stephen Strong has created wonderful photovoltaic projects. The photovoltaic engineer at Schüco International, Christof Erban, has been invaluable in assisting the technical aspect of my work.

**Why does the tower have a double name? Was 'True North' the original name and was 'Lux Nova' add to it after placing the art glass installation?**

True North refers to the wind tower itself. It is located on a true north axis and the tip of the tower points to the North Star - the one still point in our night sky. Lux Nova refers to my art glass - integrated into the south face of the tower is an installation that offers spiritual reflection – and energy collection. Dal Shindal, the art director at Regent College, had the genius to name the piece.