SIMONE GIOSTRA & PARTNERS ARCHITECTS DESIGN SOLPIX INSTALLATION FOR COOPER HEWITT DESIGN TRIENNIAL MAY 14, 2010 – JANUARY 9, 2011



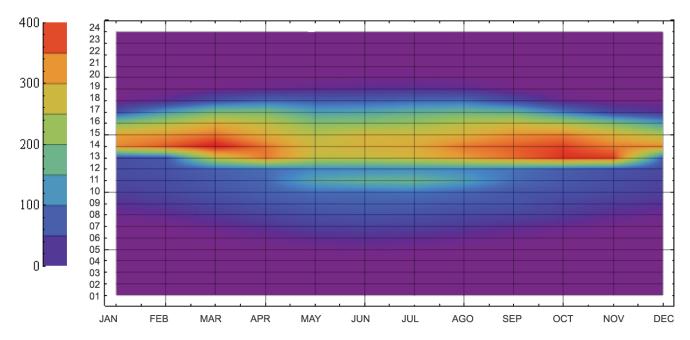
"SolPix" © 2010 Simone Giostra & Partners

NEW YORK – SolPix, Energy-Positive Media Skin, a groundbreaking solar powered sun shading media wall system created by Simone Giostra & Partners Architects is the focal point of a large installation, designed by Giostra, for the Cooper Hewitt Design Triennial opening on Friday, May 14, 2010. Permasteelisa North America, world's leader in building cladding systems, provided manufacturing and installation services for the media skin.

The site-specific installation is located in the Conservatory of the Museum as the centerpiece of "Why Design Now?", the only Design Triennial in the Country and the most ambitious one to date. Positioned at the convergence of technology, design and the environment, *SolPix* is a full-scale working prototype demonstrating the ability of the system to interact with its environs while improving the energy performance of the Museum. Giostra collaborated with artists Jeremy Rotsztain and Rory Nugent on the installation.

Featuring a large scale color LED display and photovoltaic panels integrated to a sun-shading system, *SolPix* transforms the existing glass structure into an energy-positive skin, harvesting solar energy and using it to power the screen, while protecting the Conservatory from excessive solar radiation. "*SolPix* will reduce the carbon dioxide emissions by new developments or existing buildings, providing a proportion of their energy from on-site renewables, potentially transforming entire cities into energy-positive infrastructures", said Simone Giostra.

The project is based on GreenPix, a carbon-neutral media wall for the Xicui Entertainment Complex in Beijing, near the site of the 2008 Olympics. Featuring one of the largest color LED display worldwide and the first photovoltaic system integrated into a glass curtain wall in China, GreenPix transforms the building envelop into a self-sufficient organic system. New York-based architect Simone Giostra pushes this technology in his site-specific installation, improving the energy efficiency of the previous system, while increasing the resolution of the digital display and effectively achieving a transparent media wall.



"Annual Irradiance Analysis (W.m2)" © 2010 Simone Giostra & Partners / ARUP

Energy / Content / Performance

Considering that buildings are responsible for 60% of the overall energy consumption, transforming our cities into energy-positive systems would resolve the energy crisis and radically improve the quality of our living environment. Accurate analysis of yearly solar irradiance in the Conservatory shows that a sufficient amount of incident energy will be converted by the photovoltaic panels into energy for powering the media wall. *SolPix* will constantly monitor its own performance using embedded, custom-designed software that visually displays the energy balance of the system, using an algorithm to generate motion graphics and transforming the installation into a responsive environment for entertainment and public engagement.

SolPix allows daylight into the Conservatory while controlling its exposure to direct sunlight, reducing heat gain and transforming excessive solar radiation into energy for the media wall. When applied to building exteriors, the sun-shading elements provide unobstructed outside views from the building interior, while lending a contemporary texture to the building exterior. The horizontal or vertical panels can be mounted at a preferred angle or can be rotated in order to maximize exposure to direct sunlight. Additionally, SolPix is a transparent media wall with digital screen capabilities for dynamic content display. The panels can be used to create stunning media effects on very large building envelopes that are viewable from both inside and outside the building.

About the Design Triennial and Cooper-Hewitt, National Design Museum

"Why Design Now?" will be on view at Cooper-Hewitt, National Design Museum from May 14, 2010, through Jan. 9, 2011, and will explore the work of designers addressing human and environmental problems across many fields of design from architecture and product design to fashion, graphics, new media and landscape design. The Triennial will be global in reach for the first time, reflecting the connectedness of design practices and the need for international cooperation to solve the world's problems. Inaugurated in 2000, the Triennial series seeks out and presents the most innovative, forward-thinking designs at the center of contemporary culture from the previous three years, showcasing design solutions that promote environmental stewardship, social equity, accessibility and creative capital.

About Simone Giostra & Partners Architects

The project was designed and developed by Simone Giostra & Partners, a New York-based office with a solid reputation for its innovative approach to digital media and renewable energy.

The office combines a series of existing and new professional collaborations and cross-disciplinary partnership to address the full potential of contemporary culture and technology.

Currently, the firm is responsible for the design and implementation of some of the most innovative projects under development worldwide, including the SuHe Entertainment Center in LinYi, China, and the GreenPix project in Beijing, a sustainable media wall featuring the largest LED display to date and the first photovoltaic system integrated to a glass curtain wall in China.

Simone Giostra graduated from the Polytechnic School of Architecture in Milan, where he earned a Master's Degree in Architecture in 1994. Mr. Giostra has lectured extensively in Europe and the US, most recently at the "SOM Lecture Series" and the "Feltman Lecture" at Cooper Union in New York, at the Polytechnic School of Architecture in Milan and at the "View Conference" in Turin, Italy.

His work has been exhibited widely, including at the DAZ – German Center for Architecture – in Berlin and at the Festival of Creativity of Florence. He was the recipient of the Archi-Tech Award, the Boston Society of Architects "Sustainable design award", a finalist of the World Architecture Festival and the Zumtobel Award in 2008. He is Associate Professor at the School of Architecture - PRATT Institute - in New York and Visiting Professor at the NABA Academy in Milan.

About Permasteelisa North America

The Permasteelisa Group is internationally renowned for its capability to devise innovative design systems and architectural shells, constantly searching for new and customized technology solutions. The architectural work built by the Group - from the Sydney Opera House to the Guggenheim Museum in Bilbao - are in themselves the proof of Permasteelisa's capacity to create facades with a complex structure. The unique design and engineering capabilities developed internally by the Group is still one of its main strengths. Over the years, design has become Permasteelisa's core business.

About Jeremy Rotsztain and Rory Nugent

Jeremy Rotsztain is a Canadian video artist and software developer whose hybrid practice incorporates cinema, painting, computer science, animation, imaging, and architecture. Jeremy recently completed his Master's degree in art and technology at the Interactive Telecommunications Program (ITP) at New York University and is currently based in Los Angeles.

Rory Nugent is a programmer, electronic artist and environmentalist living in the New Jersey metro area. Rory earned his Master's degree in new media art and physical interaction design at NYU's Interactive Telecommunications Program in the Tisch School of the Arts. Lately, he has been focused on creating homemade musical instruments, minimal robotics, energy harvesting devices, and experimenting with wearable electronics and critical design.

Project: SolPix[™] – Energy Positive Media Skin **Location**: Cooper Hewitt Design Triennial

Opening: May 14, 2010

Client: Cooper Hewitt National Design Museum Architect: Simone Giostra & Partners Architects

System Specifications: Arup

Media Art Content: Jeremy Rotsztain with Rory Nugent

Manufacturing: Permasteelisa North America **Photovoltaic System**: Scheuten Solar USA

Metal Fabrication: Zahner Co.

General Project Support: Two Trees Management Co.

Contact:

Simone Giostra & Partners +1 212 920 8180 ext. 1# Info@sqp-architects.com