

Shanghai International Mosaiculture 2006 Shanghai, China

Project Lead

Christian Brunet, Hydralis Irrigation
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Challenges

- Ensure efficient distribution of water on large structures with both horizontal and vertical surfaces.
- Allow for a Canadian irrigation designer to work seamlessly in China.

Solutions

- Use of Rain Bird drip and landscape irrigation components.
- Direct involvement of Rain Bird sales representatives in Montreal and Shanghai.

Results

- Award-winning contribution to global competition.
- No headaches.



More than 700,000 visitors saw "Montréal en Scène!", a project design by Mosaiculture International Montreal.



Rain Bird Irrigation Products Chosen to Bring a Bit of Canada and Greece to Life in Shanghai

In the midst of the glass and concrete sky-scrapers that define China's largest city, a re-creation of Athens' Parthenon – covered completely with live plants and flowers – struck quite a contrast. So too did green re-creations of Paris' Eiffel Tower and Rio de Janeiro's famous mountain-top-perched statue of Jesus.

So what explains the appearance in Shanghai of some of the world's most famous architecture in flora form? The Shanghai International Mosaiculture 2006, held from September 15-November 30, 2006, attracted more than 50 cities and organizations from 32 countries to promote their heritage through the art form of mosaiculture. Mosaiculture is the arrangement of several groupings of small shrubs or plants into a mosaic, geometric arrangement or shapes to represent or re-create an image or object. These arrangements can be two- or three-dimensional. And lest anyone think this is simply the art of pruning, mosaiculture generally forbids the use of topiary plants.

With every square inch of each creation being covered with living plants, irrigation is key to the success of any mosaiculture sculpture. Christian Brunet, co-owner of Quebec City-based Hydralis Irrigation, was familiar with this art form as both the 2000 and 2003 International Mosaiculture celebrations were held in Montreal. Lise Cormier with Mosaiculture International Montreal, the organizers of the previous two events, asked Brunet to lead a team of five students from Quebec City's Fierbourg professional school to work on the irrigation components of three sculptures at the 2006 event in Shanghai – two representing Canada and a third (the Parthenon) representing the city of Athens.

The Project

He says that creating these works of art is a "huge task" and one that requires "a lot of people, time, creativity and coordination." First, a team of sculptors designs the iron structure that serves as the skeleton for the sculpture. The design and initial metalwork for Canada's entries were done in Montreal. The metal framework was then disassembled, shipped to China and re-assembled and completed in Shanghai over two months by two sculptors. Once this was completed, a



Rain Bird® 1812 sprays with U-Series nozzles ensure even water distribution to the plants at the base of the project.

Products Used

Controllers

ESP-LX Plus

Valves

DV-100

Spray Heads

1806 and 1812 Sprays with U-Series Nozzles

Manifolds

UVMS Union Valve Manifold System

Distribution Tubing

Xeri Black Stripe Tubing

Emission Devices

Xeri-Spray 360 ADJ Mistlers

Fittings

Easy Fit Compression System



The award-winning 7,000 square-foot (650 square-meter) island weighed more than 90 tons and was covered with 800,000 plants and flowers.

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membrane was installed around the framework to hold the top soil. A horticultural coordinator had already chosen the plants, which were native to Canada but grown in China, based on color and texture. But the irrigation work was done prior to the plants being placed in the soil-filled membrane.

The grandest of the Canadian entries, which ended up winning the top honor in Shanghai, depicted the seasons in Montreal on a 7,000 square-foot (650 square-meter) island weighing more than 90 tons and covered with 800,000 plants and flowers. At the center of the island was a 45-foot (13 meters) maple tree covered with gold-, red- and orange-colored plants to give the sense of autumn in Quebec.

"My responsibility was to design and install the irrigation system in and around the structure, taking into account that different types of flowers have different water needs," Brunet explains. "I had to create an irrigation system that respected those variations."

The Irrigation

Brunet chose to work exclusively with Rain Bird products for several reasons. First of all, he chose Rain Bird for the quality and reliability of product.

"We've been working with Rain Bird products for the last 20 years because they are excellent products," Brunet says. The second reason Brunet and his team chose Rain Bird was the support he knew he'd have from both his local sales team in Quebec and on the ground in China. Rain Bird China worked directly with Brunet to make sure he and his team had the products they needed as well as any technical support.



A few other product-specific factors led Brunet to go with Rain Bird. He admits that it helped that Rain Bird® Xeri-Sprays™ are black and "easy to hide in such a monument," but he also liked them because of their ability to reliably vary the flow to apply different amounts of water to different part of the project.

All plants on the ground were irrigated by Rain Bird® 1806 and 1812 sprays with Rain Bird® U-Series nozzles. All plants on the structures themselves were irrigated by Rain Bird® Xeri-Spray™ 360 ADJ Mistlers.

All lateral pipes were Rain Bird® Xeri Black Stripe Tubing.

"It is a product that's easy to work with because of its flexibility," Brunet says. "Also, having different color-coded pipe really helped differentiate one pipe from another and eliminate any mistake. As tubing connections we used The Rain Bird® Easy Fit Compression System because they were quick to install and reliable"

Three Rain Bird® ESP-LX Plus controllers were used to run 20 stations with 54 Rain Bird® DV-100 valves. The Rain Bird® UVMS Union Valve Manifold System was chosen for its simplicity and ease to assemble and connect. The water source was a temporary aqueduct connected to fire hydrant.

"In this project, the most important issue was the quality of the products and to have the maximum control on the sprays," Brunet says. "A mosaic is not like a flowerbed; some parts had only a few inches of soil, and others had more. That was the main challenge in conception. Greater control and the most water-efficient products result in maximization of water use."