West Tisbury native helped design majestic fountain.

Vineyard Springs Eternal at Sochi Olympics

Ivy Ashe *Thursday, February 13, 2014 - 4:47pm*

The Olympic torch blazed in its cauldron and fireworks burst in the sky as the 2014 Sochi Winter Games opened last week. At the base of the cauldron, jets of water rose and fell in low streams, fanning and growing taller and taller before finally rising 230 feet above the ground, to the height of the flame itself.

Twelve time zones away, in California, Andrea Silva watched a livestream of the ceremony with her own Olympics team — the group that designed the fountain and choreographed the rhythm of the falling waters. The water's debut performance was the result of 11 months of intense work and collaboration. And it had paid off.

Fountain Designer isn't a typical career path for anyone, let alone a Martha's Vineyard native like Ms. Silva, who was born and raised in West Tisbury. Other cities, most notably Rome, are famous for their cascades. The quiet burble of Ocean Park's fountain is about as extreme as it gets on the Island.

"I don't think anybody really grows up thinking they'd do that," Ms. Silva, 34, said in a telephone conversation. "I just kind of fell into it."

After graduating from the regional high school, she enrolled at the Rhode Island School of Design where she studied landscape architecture. In 2002, her senior year, the creative director at WET, the global firm she now works for, visited campus and gave a presentation of the company's work, which includes the towering fountains at the Bellagio in Las Vegas.


Andrea Silva.

"The work and the images really resonated with me," Ms. Silva said. So much so that she interviewed with WET almost on the spot, talking with representatives outside of RISD's architecture building. She flew out to Los Angeles for another interview and had a job lined up before graduation. She's been with WET ever since, and is now a senior project designer.

Ms. Silva has worked in South Korea and China, Morocco and Los Angeles, and Kansas City (which has the most fountains of any city except Rome). She was part of the team that designed the Dubai Lake Fountain, which rings the man-made lake at the base of the Burj Khalifa, the world's tallest building. That fountain, like the Sochi feature, is musically choreographed. The entire system is 902 feet long and shoots water 500 feet in the air. It's the largest fountain system in the world.

"That was interesting in terms of the sheer scale of it," Ms. Silva said. The fountain had to be constructed with the lake in mind and incorporated seamlessly into the Dubai surroundings.

"Dubai's an international city, and they wanted the fountain to reflect that," Ms. Silva said.

With any project, Ms. Silva works to fuse contextual features into her own customized design and Sochi was no different. The Olympic iconography is so strong that incorporating the linked rings into the design was an aim from the beginning, Ms. Silva said. But she also had to look beyond the three weeks in February when planning the fountain's future.

"It's also going to live on," she said. "The city has its own life as a summer resort." Sochi will be a host city for the 2018 World Cup and is the site of the 2014 Formula 1 racing season.

The entire feature measures just under 250 feet in diameter and holds about 700,000 gallons of water, which circulate in a self-contained system. Twinkling lights in the base of the feature mirror the constellations of the Russian sky, and LED lights infuse the jets and plumes of water with bright colors during night shows.

"When we were brought on, the footprint already existed and they were waiting for a design from us," Ms. Silva said. She joined the project last March and was designing in April, working with both her team and a team from Russia to finalize the vision. The design then went to WET engineers, who created the technologies, from nozzles to lighting, to make the concept happen. The feature was built by Russian developer Stroi International, but WET engineers and field technicians were on hand to assist with the company-specific technology. Ms. Silva was also one of three choreographers working to set up the fountain's musical shows, which were timed to music by Russian composers such as Tchaikovsky and Khachaturian. Programming software operates each nozzle, directing when and how the water will flow.

“It’s a group effort for sure,” Ms. Silva said. Normally, she said, a water feature of a similar scale would take at least 18 months to complete. The Sochi project was done in 11 months.

Yet she couldn’t discuss her progress with anyone outside of her team.

“I was under a confidentiality agreement so I couldn’t talk about it before the opening ceremony,” she said. “I was making all these mysterious trips to Russia!”

The final trip lasted three weeks, as the team finalized choreography. One night, while out testing the waters before their debut, Ms. Silva and the team was approached by a man who had walked by the project before. He asked if they were the ones responsible for the fountain, and thanked them, explaining that the near-complete show had moved him to tears.

“It’s an incredibly rewarding element to work with because people are attracted to water,” Ms. Silva said. “It has an incredible capacity to move us emotionally.”