PROFILE

NAME: "Tendrils," Riverside Art Museum

LOCATION: Riverside, Calif.

FOUNDED: 2019

WEBSITE: www.michaelskura.com

CHALLENGE

Artist Michael Skura needed to Illuminate over 1,000 hand-blown and molded glass sculptures for an interactive glass art exhibit at the Riverside Art Museum in conjunction with the Festival of Lights in Riverside, California.

SOLUTION

Quiet and bright, Epson's LightScene and PowerLite L laser projectors enabled Skura – in collaboration with production company RabCup and LUMOplay interactive display software – to capture the beauty and subtlety of his creation.

A Beam of Light

Epson projection supports artist Michael Skura with his stunning interactive glass art exhibit, Tendrils

Light and darkness. There's nothing more elemental or more moving, especially when revealed by glass artist Michael Skura.

His latest exhibit, Tendrils, illuminated more than 1,000 of his beautiful hand-blown and molded glass sculptures with pure laser light from 19 Epson LightScene® and three PowerLite® L615U laser projectors.

This light, mapped to the sculptures in an otherwise pitch-dark room, evoked the beauty and subtlety of creation as it flowed and reflected off the glass and reacted to the movements of visitors.

The thought-provoking and popular exhibit ran from November 21 - January 5 at the Riverside Art Museum, in conjunction with the Festival of Lights in Riverside, California.

Elemental effects

Skura's work is unusual in that he makes no attempt to remove the defects and impurities inherent in working molten glass. Instead he sees these as expression of the true nature of the material and works each mass of glass on a blow pipe in ways that welcome debris, bubbles, distortions and stress marks.

For this particular exhibit, he then mounted his sculptures on black-painted walls and pedestals to create large, organic patterns and clusters, seemingly illuminated from within by the projected light.

"I think beginning my journey as an architect brought me a certain spatial awareness and a respect for the lighting effects possible through glass," he explains. "At a certain point in my creative process, I began to explore the light instead of the glass as the artwork itself – the art became the light, and the inspiration for this show was seeing light in the context of darkness."

Visit: https://www.youtube.com/watch?v=Yj5kxUD_ero

Skura works closely with his friend, AJ Freysteinson, CEO of RabCup, which produces projection mapped, holographic and video shows for theaters, museums and corporate clients. For the Tendrils exhibit, he also worked with Meghan Athavale, CEO of LUMOplay, which offers a complete platform to create, deploy, manage, and analyze interactive experiences.

Skura and Freysteinson have worked together since 2013. They put on their first exhibit with a single 26,000-lumen projector to illuminate the glass, since then they experimented with combinations of smaller devices before deciding on Epson for the Tendrils exhibit.

"At the beginning of our work together we tried using stage lighting, but we didn't have the control we wanted, or the movement, and it wasn't as intriguing as projection," Freysteinson recalls.

For Tendrils, they used nineteen 2,000-lumen Epson LightScene accent lighting laser projectors plus three 6,000-lumen PowerLite L615U laser projectors to illuminate five distinct installations in the gallery.

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Skura created the glass sculptures, Freysteinson the video content, design and production, and Athavale the coding and interactive effects. The results were stunning.

The largest piece, titled "Shy," transformed over 500 pieces of wall-mounted hand-blown glass into an undulating array of elusive, twinkling creatures. As the motion slows and quiets around the shy wall, the glass pieces gradually illuminate and come forward to meet and interact with visitors. Sudden movements and loud sounds resulted in a quick scamper away into the darkness of the black wall.

A second large piece, called "Television," displayed large glass orbs on a wall-mounted board with proportions resembling a flat panel TV. Video content was mapped only on the glass, producing light tendrils and a motion sensor that triggers additional distortion of the image, similar to pebbles in a reflecting pool, when viewers were still and quiet.

Creating the exhibit

Freysteinson says it took nearly a year to create the six-week exhibit, six months of that in planning and design, the rest in assembling the pieces, mounting the projectors, creating the programs, then disassembling it all and rebuilding it in the Riverside Art Museum.

To create the stunning visual effects, Athavale and her staff had to treat the projectors illuminating each of the five pieces as a single large-screen display, each of which was controlled by a single computer workstation. They began by building an ultra-high-resolution PhotoShop file for each work, drew in the shapes of the individual glass sculptures, then imported them into LUMOplay.

Within that program, the drawings act as masks, ensuring that the light from the projectors falls only onto the sculptures. The spaces between them remain dark, except for light reflected from and refracted through the glass. They then used LUMOplay to create the color and motion effects that would fall on each piece.

For "Shy," Athavale says she created individual 'particle' effects for each of the 500 pieces of glass. "Each sculpture contained at least one 'particle' system. The particles themselves were really simple: just some balls and ribbon trails that moved quite slowly. Inside the glass, they looked like little ghosts, and they created some very cool reflections on the wall." Although the effects were simple, multiplying them across the work created an organic, lifelike whole.

This almost-living wall was "Shy" because it dimmed when people approached.
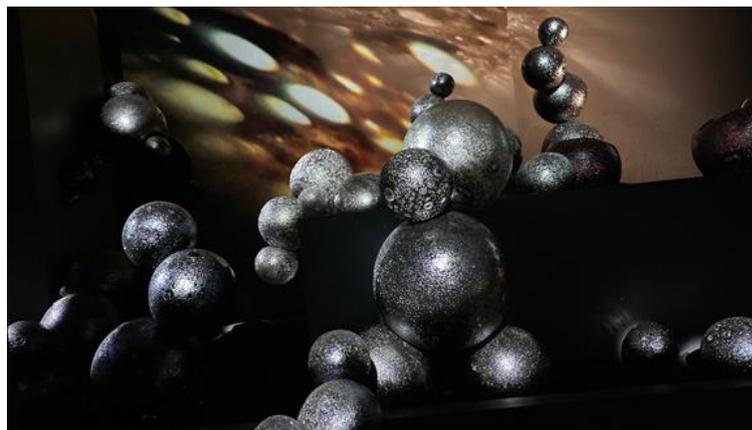
"In other words, each sculpture 'talked' to the next," Athavale explains. "When someone approached the wall, the bottom sculptures dimmed, and then the sculptures directly above, and so on, until the whole area was dimmed in response to movement. When people stood still near the wall, the light slowly came back to life."

Freysteinson says all of these effects were dramatically enhanced by the brightness, clarity and sharpness of the Epson laser projectors. He is especially impressed by the LightScene, which is a projector built in a form resembling a large track-lighting fixture, easily mounted to a ceiling or wall and aimed freely in any direction.

"What I'm really excited about is the ability to have so many projectors in a space and hit the work from many, many angles at once, without the ceiling getting cluttered with tons of intruding projectors and cables. The LightScenes disappear into the sky. They're quiet and they're bright. They work perfectly for what we're doing."

"Skura's unique vision, from the colors he has chosen, to the sculptural element of his work, explores the contrast between purity and complexity, brightness and darkness," said Remi Del Mar, senior product manager, Epson America, Inc. "Light is a significant component in his art, and being able to introduce Epson's projection technology as a source of light in this impressive installation is a step toward the future – where we see the lines between art, technology and human experience continue to blur."

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