The Best and the Brightest

Projection Mapping with Epson Pro L-Series Highlights Nature’s Best Photography Winners

It’s an extraordinary exhibition.

The annual Nature’s Best Photography Windland Smith Rice International Awards Exhibition honors the world’s most beautiful nature photographs and the people who have created them. Housed in the Smithsonian National Museum of Natural History in Washington D.C., the 2017 exhibition included 60 remarkable images of animals, birds, landscapes, oceans, and outdoor adventures. They were chosen from over 26,000 entries.

Epson has long been a sponsor of the competition, creating the exhibition prints on its wide-format professional photography printers. This year, the company added a dramatic twist to the invitation-only awards ceremony and reception on November 16 — projection mapping the winning photographs onto the interior of the Smithsonian’s Rotunda.

“What initially drew us to this project was the chance to work with photographers who care so deeply about image quality, recognizing we would have the opportunity to present their photography at scale, in 20–30 foot images,” says Gavin Downey, senior product manager—large venue projectors, Epson America, Inc.

“When I saw my photograph being projected and move across the Smithsonian dome, it was magical,” said one of the photographers.

“The projections were fabulous,” said a guest. “It was just incredible to see,” said another. “I couldn’t stop staring.”

Drawings from the 1920s

To make the projection mapping so inspiring, Epson hired All of It Now, a San Francisco-based creative design agency that specializes in live video production. Danny Firpo, CEO and founder, and Howard Wong, president of All of It Now used six Epson Pro L25000U projectors, each delivering up to 25,000 lumens of white brightness and 25,000 lumens of color brightness1, projection-mapped onto the Rotunda’s four-story architecture and dome.

In addition, the All of It Now team set up two Epson Pro L1405U projectors with ultra-short-throw lenses to provide rear-screen images for the awards ceremony held during the private reception.
In projection mapping, the video producer creates warps and masks on the computer that duplicates the shape of a 3D object, onto which he or she will project the image. Thus, the light from the projector lands only on the desired area, with no spill onto the background or adjoining objects.

"When we’re working on a project, we have to find the right projector and the right lens, and Epson’s online tools make the selection of projectors and lenses really, really simple," Firpo explains. In mapping to the columns and to the ceiling, they chose an Epson ELPLM12 lens for each of the Pro L25000U projectors, with each projector physically mounted in portrait orientation.

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—DANNY FIRPO, CEO AND FOUNDER, ALL OF IT NOW

For the Nature’s Best awards reception, All of it Now used architectural pencil drawings from the 1920s to duplicate the column-like corners of the Rotunda, plus triangular sections of the dome immediately above. Next, they chose sections of the winning photographs and fit them to the masks, for example the head and necks of a pair of giraffes on the dome and their bodies on the column immediately below.

With only the night before the event, the All of It Now team with the gracious support of Nomad Event Systems, a D.C. based full-service event production company, installed and calibrated the video system. Each projector’s output was carefully aligned onto the elements of the Rotunda for a seamless presentation.

“When working with lasers, we have more power efficiency in a smaller form factor,” Firpo adds. “We have the ability to mount the Pro L25000U in unprecedented orientations and thereby get a projector in places we normally wouldn’t be able to. With Epson, we don’t feel that we’re fighting technology. It actually helps us and keeps us in the zone.”

Getting out of the Way

Of course, the biggest challenge of the project was holding onto the quality and impact of the award-winning photographs, even as they were projected onto 30-feet tall objects that were much darker than any projection screen.
Part of the answer was the sheer brightness of the Pro L25000U, but its color accuracy was more important still. “When we’re projecting, often there are certain colors that are really hard to see, and red is one of them – the red spectrum,” Wong says. “We noticed that with Epson projectors, we get our reds.”

Downey says the brightness, color and quiet operation of the Pro L-Series all contribute to the effect on the audience. “While we’re using sophisticated projection technology, such as mapping, we really want the attendees to be transported by the imagery itself. We don’t want them to see projection mapping, we want them to see the awesome splendor of nature.”

“There’s a difference between wow and whoa,” Wong says. “The images from Nature’s Best Photography, combined with projection mapping, made for a whoa!”

“At the end of the day, it’s what’s on screen,” Firpo adds. “You can see the awe on peoples’ faces. We want the technology to get out of the way so that people can stay enthralled and enraptured by the artwork that’s displayed on these screens.”

Disclaimer: The views and opinions expressed in this article are those of the individual. Individuals were not compensated for this article.

1 Color brightness (color light output) and white brightness (white light output) will vary depending on usage conditions. Color light output measured in accordance with IDMS 15.4; white light output measured in accordance with ISO 21118.