

PROFILE

NAME: Natural History Museums of Los Angeles County

LOCATION: Los Angeles, CA

FOUNDED: 1913

WEBSITE: <https://nhmlac.org/>

CHALLENGE

Incorporate the right projection technology that offers a compact size and flexibility to work in a tight space for two new year-long diorama exhibits.

SOLUTION

PowerLite® projectors from Epson offered flexible, reliable and adaptable projection with brightness and light output needed to highlight the evolution of local habitats, landscapes and species.

Art and Science Highlight Local Habitats, Landscapes and Species

Epson projectors light up two art installations at the Natural History Museums of Los Angeles County

In 2024, the [Natural History Museums of Los Angeles County](https://nhmlac.org/) restored and reopened a diorama hall that has been closed for decades at NHM in Exposition Park. In celebration of the 100th anniversary of the diorama halls, the museum invited contemporary artists to submit proposals for a new exhibit that re-envisioned the presentation of context in dioramas – *Reframing Dioramas: The Art of Preserving Wilderness*. The exhibit is one among more than 70 exhibitions and programs presented as part of [PST ART](#).

“Dioramas have a unique power to spark curiosity, inspire wonder and foster exploration and discovery,” said Amy Hood, director of communications, Natural History Museums of Los Angeles County. “We wanted to breathe new life into a decades-closed exhibit hall, bringing new immersive installations that highlight dioramas as a unique blend of art and science, creating opportunities for civic dialogue around some of the most urgent problems of our time.”

Two out of the three proposals chosen – “*The Ever-Changing Flow: A Multimedia Diorama*” by artist Lauren Schoth and “*Special Species – A Delicate Moment in Time*” by artists Jason Chang (RFX1), Joel Fernando and Yesenia Prieto – included video elements.

Passionate about sustainability the environment, Epson worked with the artists and exhibition teams to support the project by lending PowerLite® laser projectors to help light up the immersive scenes that highlight the evolution of local habitats, landscapes and species.

Reimagining the Los Angeles River

Born and raised in Los Angeles, Calif., Lauren Schoth is a visionary, curator, digital media producer and environmental advocate. A digital multimedia design graduate from The



Pennsylvania State University, Lauren’s interest in creating experiences that bring communities together is what led her to the artistic medium of developing meaningful cross-platform content that resonates with audiences.

Schoth’s journey began in sound engineering at the age of 19; it was this experience that helped her discover her passion for lighting and display techniques for live shows. As Schoth became more involved with event curation, creative producing and project management, she developed her specialization in concept design and strategic planning for storytelling projects with a strong focus on engaging communities through digital multimedia and immersive experiences.

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NATURAL HISTORY MUSEUMS OF LOS ANGELES
COUNTY

Captivated by events that bring different forms of art together, such as sound and lighting, she became interested in projection mapping. Fairly new to the technology, Schoth connected with Sean Mason, chief creative officer at [A3 Visual](#) – a company specializing in cutting-edge projection mapping for immersive and experiential experiences.

When Schoth learned that the Natural History Museums of Los Angeles was taking proposals, asking artists to consider the concept of intervention to address topics such as biodiversity and rehabilitation, she immediately thought of the Los Angeles (LA) River.

“With a better understanding of how colonialism and urbanization continue to impact us all today, I wanted to use this opportunity to shine a light on the past, present and future of this great city and how everyone in it is part of its significance,” said Schoth. “I wanted to generate dialogue around issues such as habitat loss, climate change, urbanization and conservation, by telling the story of the Los Angeles River.”

Due to her previous experience with using projection as an artistic tool, Schoth knew she wanted to incorporate projection technology into her diorama. However, she needed help with finding projectors that would bring her vision to life.

“I knew I wanted to do a multimedia diorama instead of a painted background, and unlike other display technology, projection would allow me to use light to create a colorful canvas within the diorama space constraints. I loved the scale that A3V was working at and how they were bringing communities together through art and technology, so I reached out to Sean to help bring my vision to life,” said Schoth.

With A3 Visual’s help with projection mapping, Schoth was able to bring light to an impactful story about the restoration of the LA River in one of her biggest projects yet – “*The Ever-Changing Flow: A Multimedia Diorama*.”

The Ever-Changing Flow Inspiration

Growing up in San Gabriel, Calif. had a significant impact on Schoth. As a child, she remembers running around in the foothills of Sierra Madre, multiple evacuations from wildfires and frequently visiting Mission San Gabriel Arcángel, a place where she learned a lot about the history behind her hometown.

Though the LA River was in Schoth’s backyard, it wasn’t until later in life that she learned that the LA River was channelized as a means of flood control, catalyzing the loss of 95% of the once rich riparian habitat, and she knew she wasn’t alone. Schoth recognized the importance of telling the story of the LA River as an opportunity to educate and activate the community around its restoration.

The Ever-Changing Flow diorama was created to generate civic dialogue surrounding urgent issues such as habitat loss, climate change, urbanization and conservation by telling the



story of the LA River, which was once a biodiverse wetland. The exhibition is meant to create awareness and promote a deeper understanding of the intricate relationship between nature, urban development and humans’ collective responsibility towards sustainable practices.

The first scene of the diorama, *Spring – Pre-Colonial Time, Mid 1700s*, begins as a vibrant landscape of the LA River in its most pristine state. Showcasing lush vegetation, towering trees and an abundance of native shrubs and wildflowers; the LA River flows through the landscape creating a harmonious balance between the land and water, as smoke billows in the horizon to signify the established native Tongva tribe that called LA home. During this scene, sounds of birds singing and running water can be heard.

Scene two, *Summer – Agriculture, Mid 1800s*, transitions into a period of increased industrialization along the LA River. The once untouched landscape turns into dusty agriculture fields that face intrusion from human activities. The water is drying out, the oak forests have been cut down and the vibrant colors are now replaced with greys and browns. The soundscape now changes to the turning of a distant steam engine train and pangs of farming, reflecting the transformation of the river into an industrial corridor.

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- LAUREN SCHOTH, ARTIST AND DIGITAL MEDIA PRODUCER

Scene three, *Fall – Historical Flood, Early 1900s*, takes place during a devastating historical flood. Viewers will witness the aftermath of the powerful waters flooding the surrounding areas of the LA River that was the impotence of its channelization. The sounds of wind, rushing water and cracking of trees will immerse attendees in the intensity of this event.

Scene four, *Winter – Present Day/Channelization 2024*, highlights the current reality of the LA River: the once meandering river has been transformed into a concrete flood control channel. The landscape is made up of grey concrete walls and paved surfaces. The soundscape reflects the urban atmosphere with sounds of cars passing by with occasional honking and the distant hum of city life. Viewers will feel the river's detachment of its natural origins and its loss of ecological integrity.

The final scene, *Spring – Future Vision of Habitat Restoration*, offers a glimpse into a hopeful future, where habitat restoration efforts have transformed the LA River into a thriving ecosystem again. The diorama highlights flourishing vegetation and a vibrant, diverse landscape. Sounds of birds, a bike bell, rustling of leaves and the gentle flow of revitalized water can be heard, embodying a sense of renewal and the possibilities of a sustainable coexistence of the river and the surrounding urban environment.

Implementing Epson Projectors

Traditionally dioramas feature landscape backgrounds, but Schoth wanted to offer the museum a fresh take on dioramas featuring a new display technique: projection. Projection would allow the story to unfold over time, completely transforming the space. Working in a very tight space, Schoth and Mason needed to identify the best projector solution for the job. With prior experience using Epson, Mason was positive there would be a model in its extensive lineup suited for the intricate display.

Schoth commissioned A3 Visual to build a unique curved screen that wrapped around the entire diorama to act as the canvas. To light this up, they needed projectors that delivered bright, colorful images while disappearing into the space. It was also important for the projectors to work seamlessly with media servers, be easily programmable and durable enough to run continuously throughout the year-long exhibit.

"Traditionally, low tech has been used in dioramas and I wanted to push the limits with this project. I had worked with Epson previously and knew with its extensive lineup of projectors, they'd be an ideal partner for this intricate display," Mason said.

Collaborating closely with the Epson team on the best fit, three [PowerLite 805E](#) ultra short throw projectors were decided on as they allowed for edge-blending display configuration. The projectors also provided the flexibility needed within the small space and the short throw distance.

"I chose Epson projectors because they deliver incredibly vibrant and accurate visuals without any distortion or keystone issues, which made the projection mapping process so much easier," said Mason. "The clarity and color consistency were essential for creating the immersive experience we envisioned. Plus, the projector's size was advantageous, unlike other options that were too bulky to fit the space."

One Diorama Leads to Another

After the overwhelming support for her project, Schoth introduced the Epson team to three artists whose diorama, "*Special Species*



– *A Delicate Moment in Time*," had also been chosen for the exhibit and needed projection technology to bring it to life. Aligning with Epson's environmental pursuit and core priority to support artists in sharing impactful stories, it was a perfect match for Epson to get involved.

Working together for the first time, the team consisted of three artists – Jason Chang (RFX1), a large-scale muralist, Yesenia Prieto, a second-generation sculptor, third-generation piñata artisan and owner of the Piñata Design Studio in LA, and Joel Fernando, a mixed media and tech installation artist. The diverse group shared extensive experience in a variety of media, including painting, sculpting, installation, video and lighting design.

The artists came together to create the "*Special Species – A Delicate Moment in Time*," with the goal of taking viewers through a hypnotic journey underscoring the importance of environment, community preservation and connectedness.

Special Species – A Delicate Moment in Time Inspiration

Showcasing a variety of handcrafted fantastical Mexican folk-art sculptures called alebrije, which were made from recycled materials living in an amalgamation of California's biomes, the Special Species team wanted to present a dynamic scene concentrating on biodiversity through a Los Angeles lens.

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- JOEL FERNANDO, MIXED MEDIA AND TECH
INSTALLATION ARTIST

Highlighting four seasons within an enchanted realm, the first starts with Fall where the alebrije Champion Aurelio emerges – a wise and cunning spirit mixed with the San Clemente Island fox, tule elk, Mohave ground squirrel and the California spotted owl. Aurelio symbolizes adaptability and resourcefulness and teaches the youth about the importance of appreciating the interconnectedness of all living things.

In Winter, the alebrije Cronos arrives – a gentle and powerful spirit made of the grey wolf, California grizzly bear, big horn sheep and desert tortoise. Cronos symbolizes the strength of unity and protection and emphasizes the delicate balance between humans and nature, urging them to be responsible for the land.

In Spring, the alebrije Delphina swoops in – a spirit of Anna’s hummingbird, monarch butterfly, salt march gravest mouse and the Santa Rosa plateau fairy shrimp. Delphina’s mission is to teach the youth about the importance of appreciating the delicate balance of nature and the role each species plays in the ecosystem.

Lastly, during the season of Summer, alebrije Lyra comes – a spirit mixed with the Sierra Nevada yellow-legged frog, California tiger salamander, San Bernardino flying squirrel and the Sierra Nevada Mountain beaver. Lyra’s goal is to remind youth about the conservation of marine life and the preservation of the coastal habitats.

Together, the alebrijes help youth become more passionate about being stewards of the environment, advocating for conservation measures, spreading awareness and working together to safeguard the diverse and unique species of California.

Pushing the Boundaries of Dioramas

Working closely with Epson, the team identified the ideal projectors for this installation given the tight, restricted space and a variety of challenging projection surfaces. Allowing for very technical projector blending and mapping, the team decided on four [PowerLite L630SU](#) short throw laser projectors.

Turning an otherwise still background into an evolving display, the projectors were able to provide the right amount of brightness, color and contrast. With highly dynamic imagery, lighting and sound, the diorama stood out compared to the more traditional taxidermy diorama displays in the room.

The projectors were used to immerse the viewers by enhancing the illusion of movement of the sky, water and foliage. Providing the right throw distance and perfect number of lumens, combined with well-crafted content, the projectors brought the exhibit to life with bright, colorful scenes.

“Working with Epson far exceeded my expectations,” said Fernando. “The projectors provided the perfect balance of technical power and ease-of-use, allowing me to focus on the art rather than the technology.”

Boldly pushing the boundaries of what dioramas can be through the union of technology and art, Fernando filled an ultra-wide



curved background while projecting onto static alebrije sculptures, transforming a once static scene into a continuously changing diorama, capturing delicate moments in time.

Artistic Solutions Powered by Technology

Uniquely positioned to provide display support for diverse forms of artistic expressions, Epson’s extensive projector lineup (over 100 models) is designed to easily integrate into a range of environments, empowering artists to transform the ordinary into something extraordinary with light as their paintbrushes.

Schoth used traditional projection to display a digital representation of the environmental changes in Los Angeles, while RFX1, Fernando and Prieto used projection to animate still sculptures and appeal to modern attention spans with highly dynamic imagery.

Each requiring very unique projection in space-restricted areas in the same exhibit, Epson’s projector lineup was able to support two completely different diorama designs.

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