EPSON®

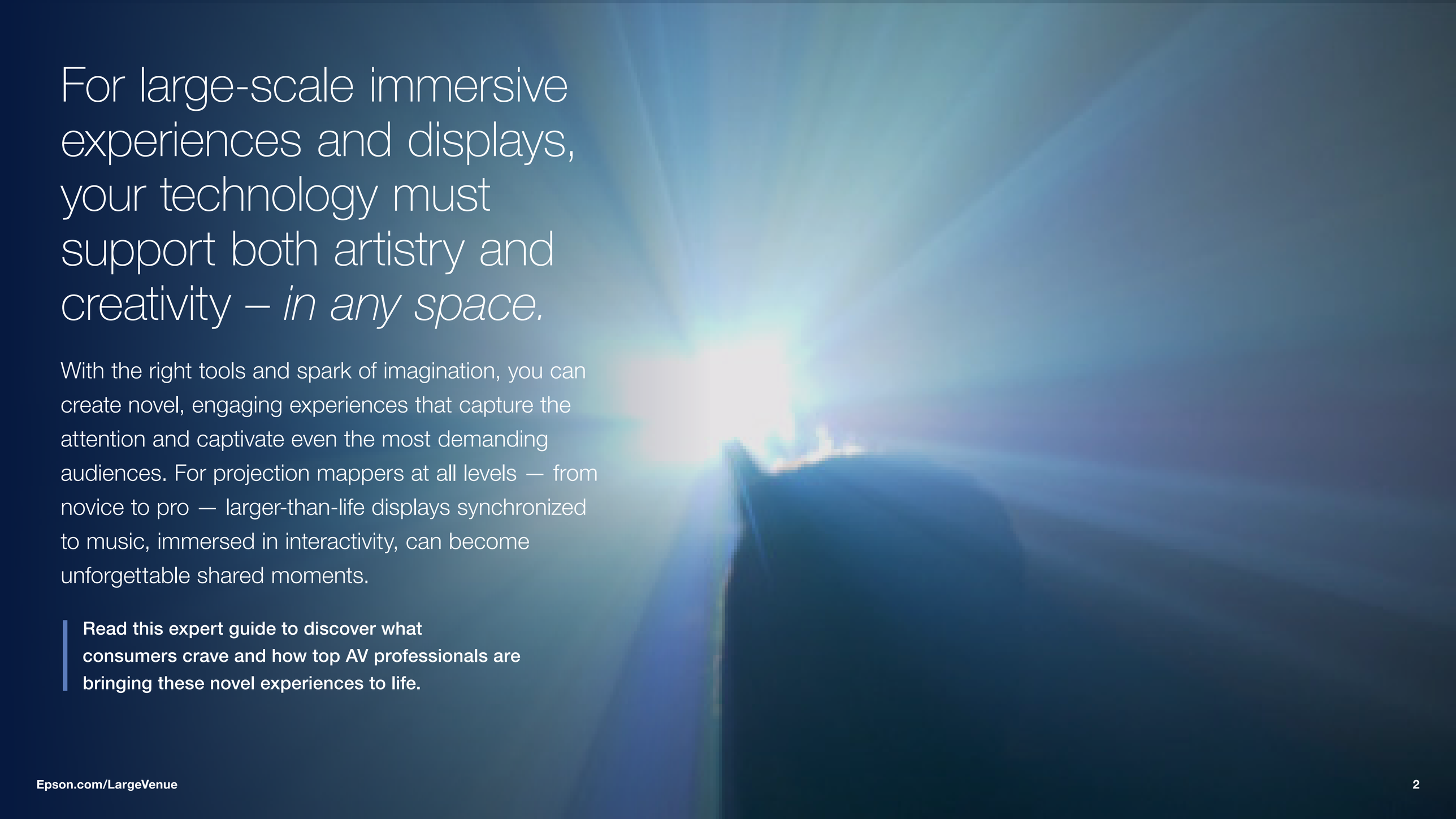
# Innovate with Creativity

## A Projection Mapping How-To Guide

# For large-scale immersive experiences and displays, your technology must support both artistry and creativity – *in any space.*

With the right tools and spark of imagination, you can create novel, engaging experiences that capture the attention and captivate even the most demanding audiences. For projection mappers at all levels — from novice to pro — larger-than-life displays synchronized to music, immersed in interactivity, can become unforgettable shared moments.

> **Read this expert guide to discover what consumers crave and how top AV professionals are bringing these novel experiences to life.**



# Start with the elements that help create high-impact immersive experiences

**Project onto an interesting surface or structure.**
The more unique and multidimensional the surface, the better. Consider curved walls, old warehouses, buildings with interesting architecture, and even trees and landscapes.

**Precisely map out the projection surface.**
The more accurately your software maps every contour and dimension, the better the illusion will look on irregular surfaces.

**Use bright 3-chip projectors.**
Invest in projectors powerful enough to cover large surfaces and combat ambient light, and you'll get a crisp, vivid image (that moves your audience).

**Design visually stunning, dynamic content.**
Use bright, bold colors and imagery. Incorporate motion and perspective into the graphics to make them feel like they are part of the physical space. And don't forget to add multimedia like music, moving images, and effects.

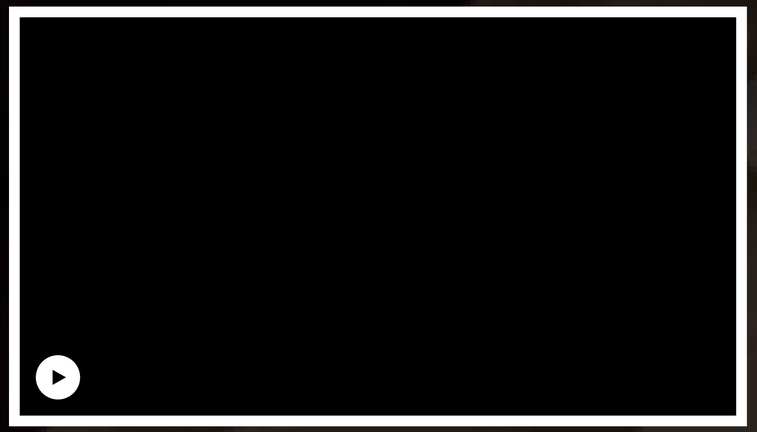
**Incorporate interactivity when possible.**
That could include using motion sensors to make the imagery react when people walk by or allowing people to trigger different visuals when they touch the installation.

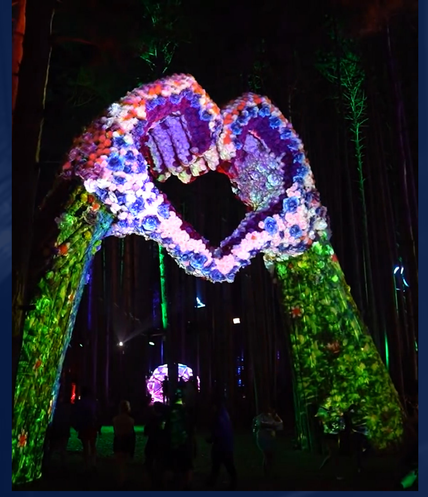
The most impactful projection mappings tell a story and completely transform any space into an immersive world. **Read on to be inspired by stunning projection mapping examples and to learn tips for creating magical, mesmerizing worlds of your choosing.**

INSPIRATION 1:

# Make “everyday” experiences memorable

*Projection mapping elevates an experience like dining to a new level using elements of entertainment and spatial design.*



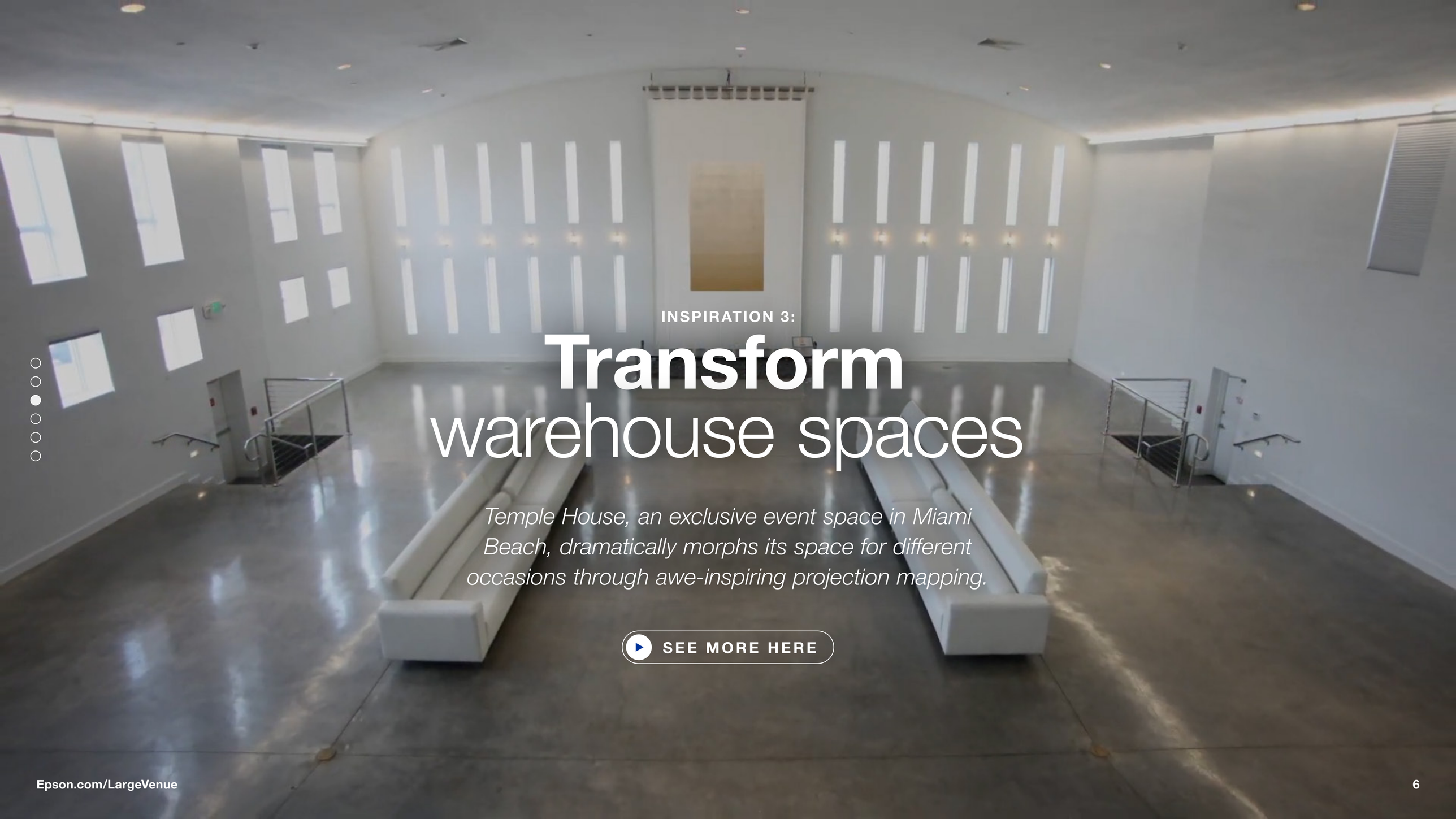



INSPIRATION 2:

# **Create** magical events

*A forest becomes an enchanted amusement park through imagination-fueled projection mapping.*

WATCH THE RECAP



INSPIRATION 3:

# **Transform** warehouse spaces

*Temple House, an exclusive event space in Miami Beach, dramatically morphs its space for different occasions through awe-inspiring projection mapping.*

SEE MORE HERE

INSPIRATION 4:

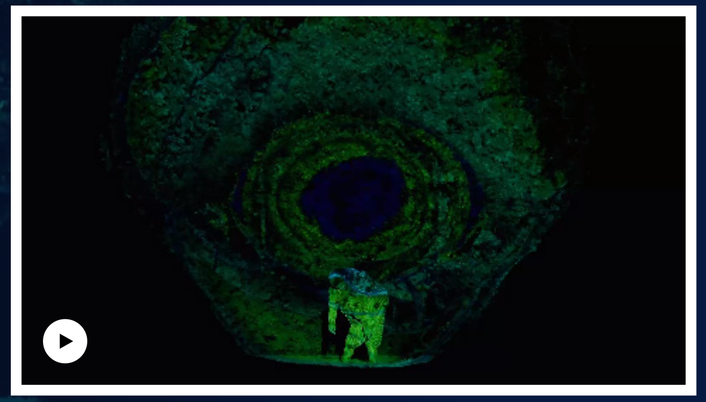
# **Energize** large crowds

*Projection mapping transforms the landscape of live theater through 3D digital holograms.*

INSPIRATION 5:

# **Become** one with the experience

*Artist Radha Chaddah explores the connection between nature and human beings through the medium of light via projector technology.*



INSPIRATION 6:

# **Fashion** eye-opening art installations

*The Illuminus Festival allowed artists to use projection mapping to create dynamic physical environments, incorporating landscapes, architecture, and more as a canvas.*

# Projection Mapping Space Challenges (and Solutions)

Though projection mapping can work almost anywhere with creative planning, some spaces and situations present challenges. Here are three examples — and solutions — to help you overcome these obstacles:

| | | | |
|---|---|---|---|
| CHALLENGE | **Moving objects.** Projection mapping is calibrated to fixed surfaces, so moving elements such as water may not properly hold the mapped visuals. | **Transparent surfaces.** Glass or plexiglass allows the projected light to pass through the surface rather than mapping cleanly. | **Bright ambient light.** If the environment is too bright, the projection will be washed out or faint. |
| SOLUTION | Enhance moving objects, water, or flags with spotlighting or strategic uplighting rather than projection. | Project on objects around or behind transparent surfaces instead. Or tape specialized projection film to the glass to display projected images. | Carefully limit lighting only to areas where needed for safety and turn off any unnecessary lighting sources to darken your environment. |

# Technologies and Equipment You'll Need to Build Your Projection Mapping Experience

## Mapping software

Used to create, edit, and map content onto your chosen surface, your mapping software calibrates and aligns your visuals properly. Popular choices include MadMapper, Watchout, and Green Hippo.

## 3D modeling

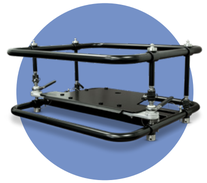
If you will be projecting on a 3D object, you'll need to create a model of your 3D object using modeling software such as Blender or Maya. When done, you can export the file in an OBJ format, for example, to import to your mapping application.

## Dedicated media servers

Particularly for more complex mapping projections, media servers can help control — and synchronize — all your projectors. They render and playback the content in real time, seamlessly blending your images.

## Audio equipment

Depending on the specifics of your immersive experience, you may need speakers and amplifiers to accompany the visual experience with sound.

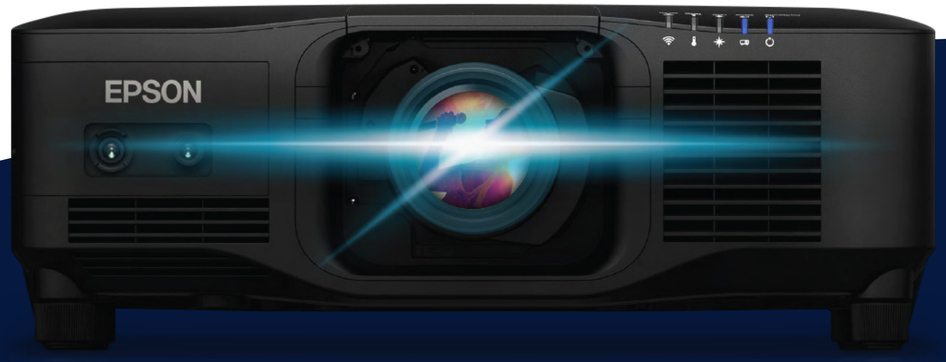


## Rigs and mounting gear

Specialized rigging gear helps you safely mount and position your projectors, ensuring optimal coverage and alignment.

## Cables and adaptors

You will need video or ethernet cables and converters to connect media servers to your projectors.



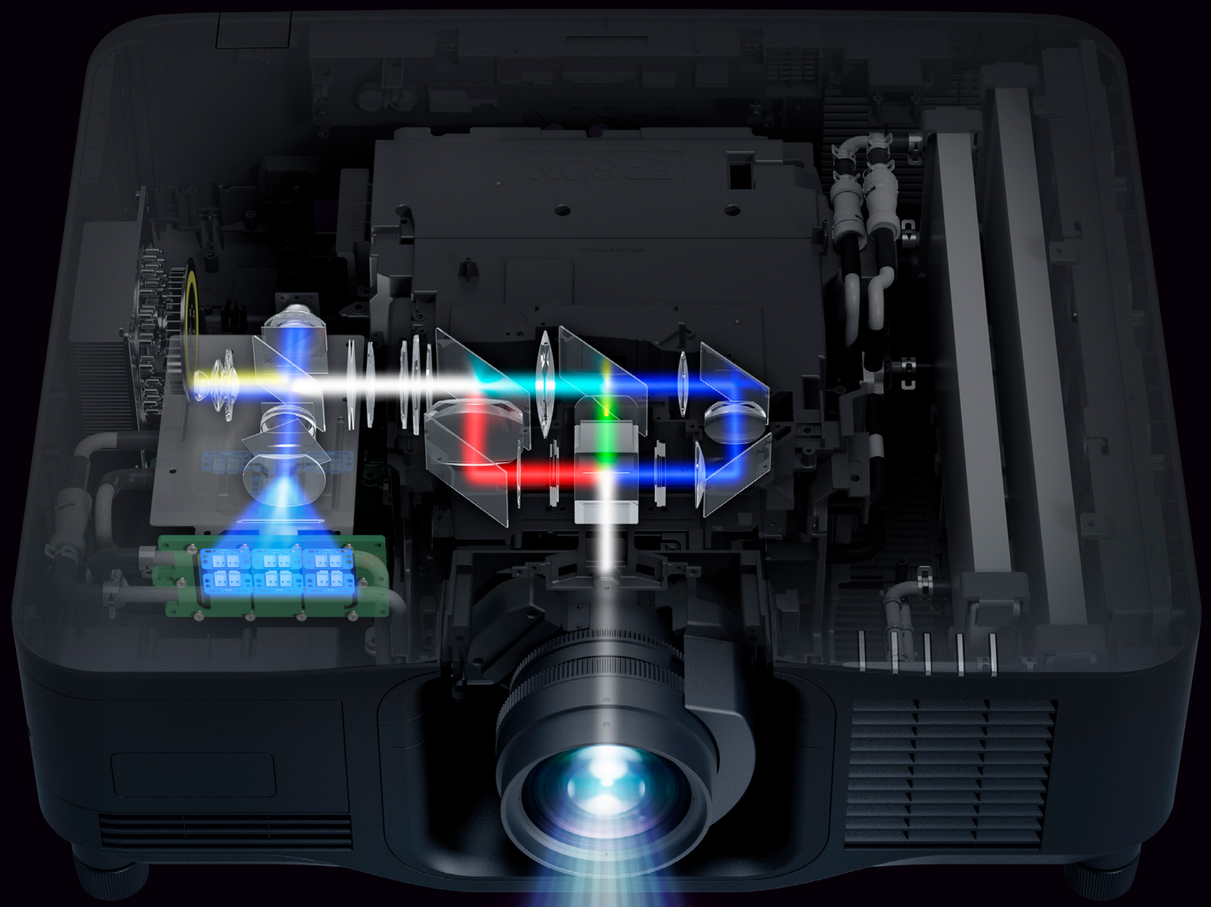

## Projectors

Look for high-quality, bright projectors for the most vivid display. The number and types of projectors you choose will depend on your budget and the scale of the display. For maximum flexibility, choose projectors with interchangeable lenses.

# Epson 3LCD Projectors are Best-in-Class. Here's why.

At Epson, we're experts in projectors. In fact, we're the ones who developed proprietary 3-chip 3LCD projection technology, which splits white light into the three primary color channels — red, green, and blue. Full-time color on the screen ensures bright, accurate images. This contrasts with one-chip DLP technology, which requires a color wheel to project all the colors on the screen. Sequential color technology leads to color brightness that is less than the projector's advertised white color brightness.

**Compared with DLP technology, 3LCD projection delivers superior color reproduction, brightness uniformity, and reliability without rainbow artifacts.**



3LCD

# Advanced Tools to Assist in Your Epson Projector Install

Looking to speed up your setup and installation? These easy-to-use tools can help.


**PixAlign** is an external camera that you can use for edge blending and geometric alignment in projection mapping setups. It can be attached to select Epson projectors or UST lenses easily and without an angle of view adjustment.

**The Epson Projector Professional Tool (EPPT),** available for Windows and macOS, lets you control multiple networked projectors in a single, large space. This app replaces your projector's remote control and gives you access to automated tools such as tiling assist and stacking assist when paired with the PixAlign camera.

# Epson Makes it Easier.
## Here's how.

When planning an immersive projection mapping experience, you want the best possible outcomes, which means you want Epson projectors.

**Easy setup and integration.** Our Epson Pro Series interchangeable lens laser projectors feature advanced functionality through our PixAlign camera and EPPT application to help simplify — and speed up — setup. Plus, our camera integration and advanced toolset help make previously time-consuming and complex applications, such as edge blending and screen matching, quick and easy.

**Weight of equipment.** Epson projectors are incredibly compact and lightweight for their class, making them easy to transport and install in any environment for your immersive experience.

**Color accuracy and brightness.** 3-chip LCD projectors split light into three channels and dedicate an LCD panel to each color, providing more accurate color reproduction and brightness than single-chip DLP projectors.

**Value.** All Epson projectors are 3-chip and provide an affordable way to get the full-color range in your projection mapping.

EPSON®

# Ready to see a demo and get started on your next projection mapping project?

Join our Pro Series Technical User List for the latest tutorials, product demos, webinars, and firmware updates from Epson.

**JOIN NOW**

To learn more about advanced tools for projector installations, visit Epson.com/advanced-projector-installation-tools