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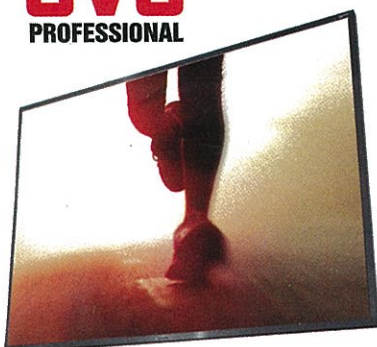


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There aren't many magical places within easy reach for most of us, no matter where we live. Museums are the exception, transporting us to the past and future, and offering a glimpse of AV's highest potential.

Given their abilities to create stimulating experiences, are museum exhibit designers a breed apart, and among the most favored clients in the AV realm?

"We certainly enjoy working with museums, especially those that are tapping their creative resources to deliver interactive environments," said Michael Bridwell, director of marketing for Digital Projection, Inc.

The combination of education plus entertainment makes for incredibly fertile possibilities, he added. "It's always interesting to see how the venues enlist technology to create an impactful experience.

Jeremy Scheinberg, COO of Alcorn McBride, is unequivocal in his take on exhibit designers as clients. "They're great clients. They are always looking for new ways to solve problems, and they have to do so in an efficient manner. They have to present designs that are easy for museum personnel to use and maintain but also present a great experience for the patrons. Plus, they are working on really cool projects with fascinating subjects. It's always fun to work with them."

AV clients, typically, are extremely professional, and museums do understand that technology is best used when their stories have to be told, said Mike Garrido, senior product manager for Christie.

"Film reel projectors, small monitors, and media in general have been used by museums for a long time, and museums appreciate the value that technology brings to presenting their collections to capture their audience's imagination," he said.

Without a doubt, museum exhibit designers often are allowed to spread their wings further than designers working in other disciplines, offered Simon Matthews, systems specialist for Meyer Sound. "This creative flexibility allows them to think a little further out of the box in deploying audio technology, and this makes the collaboration more exciting."

The Creativity Button

The marriage of technology and art happens everywhere, including museum exhibits, theatrical productions, and beyond, Matthews observed. "Many content and system designers capitalize on new technologies to satisfy their creative appetites. Our D-Mitri digital audio platform is an example of a product that is often used in these creative applications."

Sometimes, requirements for designers' projects can inspire and drive new product development as well. "For example," he said, "the Meyer Sound MM-4 loudspeaker was the result of sound designer Bill Fontana's need for his art installation project in Lyon, France. This extremely compact loudspeaker later became part of the Meyer Sound product line and is used in permanent installations and rental events around the world."

Andrew Kidd, business development



London's *The View From the Shard* is powered by Dataton's WATCHOUT.

manager and technology consultant for Electrosonic, suggested that media producers are often the ones who push particular technology. "Exhibit designers usually are not particularly tech savvy. The museum market is too small to influence AV as a whole."

It's no secret that museums are fighting

the impact vs. budget battle that all public venues are presently embroiled in. "As these venues compete for attendees, the exhibits that invite attendees to interact and engage will rise above the more passive, set-based attractions," Bridwell said. "I've seen set constructions that, though beautifully and

elaborately built, are overlooked in our regional science museum as they don't engage an action or invoke a thought experiment from the viewer."

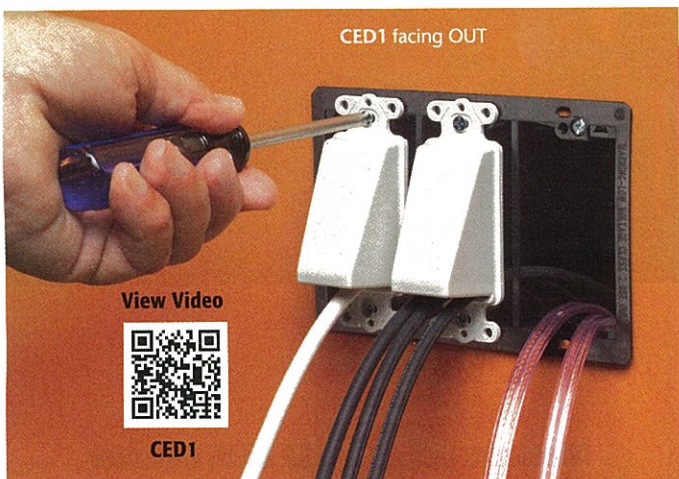
Conversely, Bridwell points to interactive projection displays with touch sensors, such as in the Jimmy Carter Presidential Library, with relatively simple functions. "People will stand in line to wait their turn to participate," he added. "The venue that creatively enlists advanced technology to form a bond with their attendees has a much better chance of membership renewals and lasting perceptions of value."

Creativity, though, comes with challenges, Scheinberg weighed in. "In many cases, the exhibit design budgets are not what you would see in other venues such as theme parks or corporate visitor centers. That

Museum exhibit designers are often allowed to spread their wings further than those working in other disciplines.

efficiency leads to the need to do more with less. There are more distributed media sources at the exhibit and more distributed control. This benefits AV in one way—usability. Since many museums don't have dedicated on-site technical staff, it forces manufacturers to design systems that are easier to use and maintain. These are systems that last longer and provide more information about status as well as easier methods for operations personnel to change content and schedules on the fly."

As a result of creativity presented through interactivity, advancements in technology are moving ahead as interactivity brings out the creative aspects, Garrido said. "This is done with crisper, more realistic images with more detail and better color reproduction. As a whole, AV benefits by being less obtrusive. When people interact with the images and forget about all the technology, that's when AV is working as it should."



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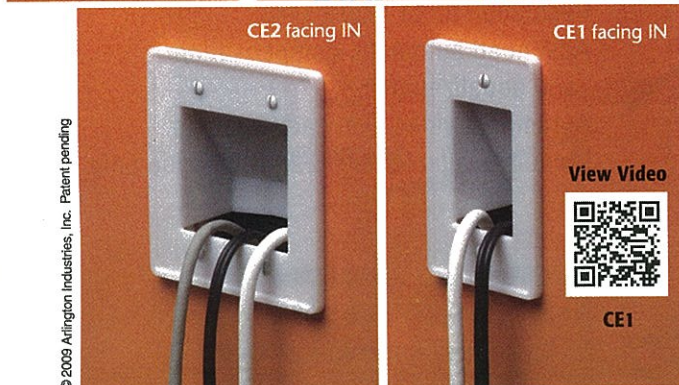
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What's in Store

Museums will continue to move toward the higher-resolution interactivity platforms, Garrido offered. "It draws people in and allows for a more personalized experience with the museum collection."

Having a higher resolution is obviously a key item looking forward, but the answer is deeper than that, he added. "The higher-res image has to have exceptional image processing speeds and excellent bit depth. This is why you see progressive companies like Christie pushing the envelope with the development of

**"The venue that creatively enlists advanced technology to form a bond with their attendees has a much better chance of membership renewals and lasting perceptions of value."
—Michael Bridwell, Digital Projection**

TruLife electronics. More resolution requires more processing power, which will take us to more detailed and smoother images than ever before. The audience members will stop seeing the pixels on the screen and allow themselves to be immersed in the image."

With personal budgets currently limited, museum patrons want to be engaged on a memorable level when they spend their money, Bridwell observed. "After all, this may be their only entertainment expense for the

The Tom Hennes Experience

Tom Hennes, founder of the NYC firm Thinc Design, has an uncommon perspective on the museum world. His nearly 20 years of exhibition design experience is coupled with a 15-year background in theatrical design.

"Museum exhibit designers have a unique circumstance, in that we are often dealing in a kind of total environment that includes spatial elements, thematic elements, storytelling, and all sorts of interaction," Hennes said. "This creates some really interesting potential for digital media."

Thinc's museum exhibition approach is to start with what is going to be made; what is it that people can encounter, how they can connect with it, and how can they make sense of the experience.

"For the most part, the people who use the applications we create are not particularly interested in whether they're digital, real, innovative, or tried-and-true," he offered. "They're interested in whether they can connect with something that feels really significant, interesting, or beautiful. I think that it's important to be very smart about how the technological intersects with this kind of encounter, how the experience plays out for the individual or group engaged with it. That often requires a novel application of an existing technology, and sometimes it requires something new altogether."

Hennes would like to believe that some of this feeds back into the larger technological universe, in that what Thinc does in exhibits can be immediate, engaging, and real. "Shouldn't other areas of technology be aiming for the same kinds of goals?" he asked.

As for the coming year, he doesn't see many firsts in the works. "Many of the firsts of the last few years are becoming more consolidated and robust. Things like widespread use of mobile apps in exhibitions, increased digital information throughout exhibits, and very intuitive gesture-based interaction are really coming of age. I think as LED lighting and projection comes online more widely, we'll see a profound technological shift toward greater stability and sustainability in these systems, but few people who use exhibits will notice."

The advent of 4K, interactivity, and immersive audio makes technology less visible and more immediate. "A 4K image feels more like a view into reality than something where the pixels are more apparent," Hennes said. "Interactivity that utilizes our body and has a really intuitive feel supports an illusion that there's nothing between us and the thing we're interacting with. Immersive audio is the same: the presence of the sound is more immediate, the sound system less a presence."

"I have begun to speak about digital objects in museums as having, under certain circumstances, equal footing with physical objects. These can be virtual re-creations of something physical, but more often they are things like scientific visualizations that have no physical analog. The more immediate they feel the more directly people can engage with and experience them."

—K.M.

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week. Immersive environments that pull the viewer into the experience accomplish this by delivering impact. Watch for less money to be spent on constructed sets and elaborate but short-lived build-outs, and more investment in virtual experiences engineered specifically to engage the visitor on a personal level."

And, Scheinberg noted, the greatest opportunity is for the use of iPhone and Android apps to provide more information about exhibits as well as supplementary content. "There are still some architectural challenges in terms of device support within the museum as well as the resources necessary to keep the apps current. However, there are still some incredible opportunities for interactivity between the mobile device and the exhibit/facility, using show control, media playback, effects, etc., once those architectural challenges