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Roland Mack

The visionary founder of Europa-Park and industry leader is being honored with the Buzz Price Thea Award for a Lifetime of Achievement



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ON THE COVER

Roland Mack, co-founder and managing partner of Europa-Park, poses in front of the park's many innovative rides.

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Judith helps drive content to serve the attractions industry, fostering professional connections, business development and the meaningful exchange of information. She has been contributing to InPark since 2005 and became editor in 2010.



Martin Palicki, Publisher

Martin founded InPark Magazine in 2004, combining years of experience working in themed entertainment with a passion for writing and design.



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Jordan is a freelance writer and narrative designer in the themed entertainment industry. He recently graduated as a member of the inaugural cohort of the Theatre MFA – Themed Experience program at the University of Central Florida. Jordan is a proud NextGen member of the Themed Entertainment Association (TEA) and an associate member of the Themed Experience & Attractions Academic Society (TEAAS).



Joe Kleiman, Senior Correspondent

Raised in San Diego on theme parks, zoos, and IMAX films, Joe Kleiman would expand his childhood loves into two decades as a projectionist and theater director within the giant screen industry. In addition to his work in commercial and museum operations, Joe has volunteered his time to animal husbandry at leading facilities in California and Texas and has played a leading management role for a number of performing arts companies. Joe has been news editor at InPark Magazine since 2011, becoming the publication's senior correspondent in 2021. His blog, ThemedReality.com takes an unconventional look at the attractions industry. Follow on twitter @themedreality.

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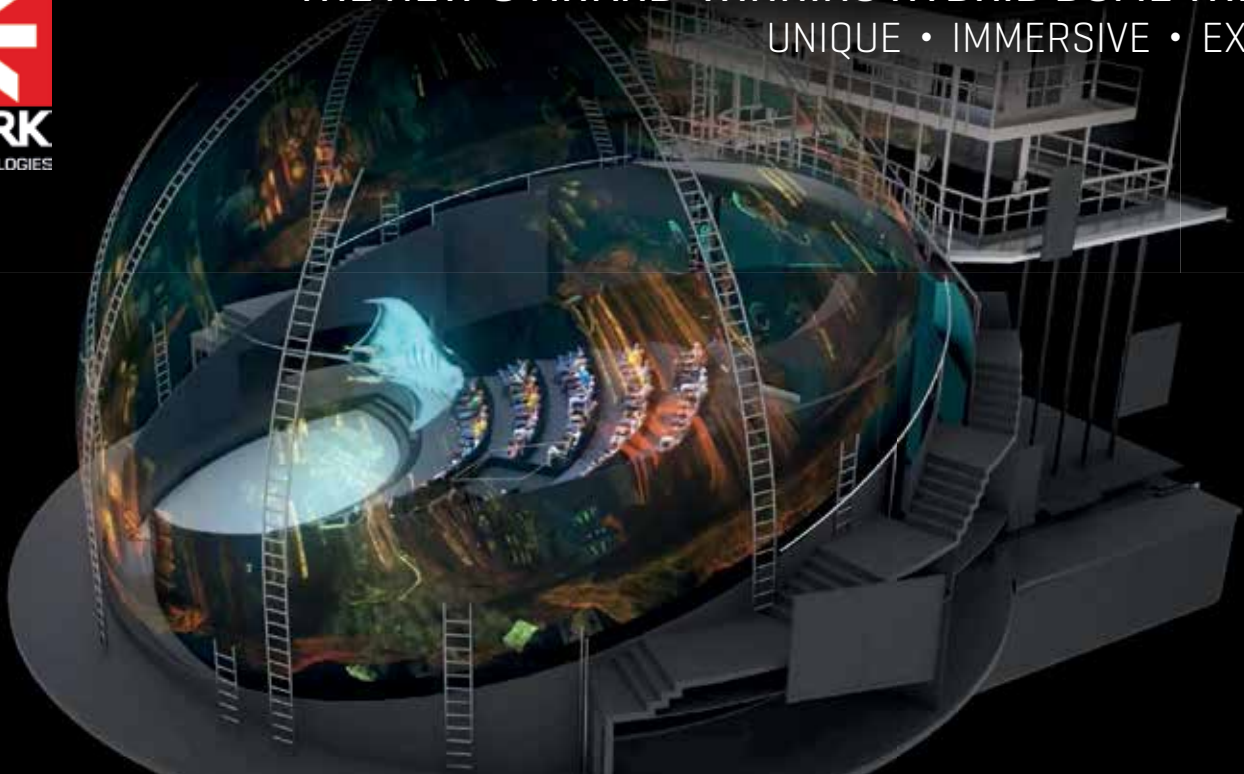
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Big Cedar Lodge's 2.5 mile Lost Canyon Cart Tour at Top of the Rock winds through the Ozarks past stunning rock formations, beautiful waterfalls and views of Table Rock Lake a few miles south of Branson, Missouri. Photo courtesy of Bass Pro



SPRK of inspiration

Creative lighting design illuminates regional attractions

by Gene Jeffers

The SPRK Lighting story begins and ends with a passion for lighting and a deep attention to detail. CEO and founder Matt Cooper's, to be precise. That energy and focus build the fire in his team to deliver the best possible impact for the available budget and schedule. "And we're scrappy," Cooper insists. "Don't forget scrappy!"

At heart, the work of a lighting designer is always about helping deliver exceptional experiences within a variety of environments. "When what we have designed and installed crackles to life and changes a familiar space into something new and magical, then I know we have succeeded," Cooper says. One only has to stroll after dark into the Foggy Hollow at Silver Dollar City in Branson, Missouri, or witness a child's excitement touring Dollywood's Great Pumpkin Luminights to witness the impact of a SPRK Lighting installation.

Based in Lexington, Kentucky, SPRK is ideally located to work with nearby venues whose guests and visitors are demanding ever more immersive experiences. Scattered across the region is a great variety of unique attractions that must compete for

those guests against larger and more distant theme parks. "We offer facilities a cost-efficient value proposition," Cooper says. "From design right through installation and programming. Whatever the project needs, we will do what it takes to deliver." SPRK Lighting's blend of creativity, common sense and a can-do attitude is well-suited to the task.



Matt Cooper

Case in point: Moonshine Mountain Coaster

After dark, heading up Route 321 North out of Gatlinburg, just past the Hillbilly Golf and Parton's Café, you'll hear shouts and laughter coming from a stretch of woods filled with ethereal light. You might wonder what is happening up on the mountain.

Under new ownership and management, Gatlinburg's first - and now newest, after a \$2 million refit and upgrade - Moonshine Mountain Coaster (the former Gatlinburg Mountain Coaster) is a unique, family-friendly thrill ride through 10 acres of woods in the Great Smoky Mountains. Single- or double-rider cars coast down the mountain on a specially-designed silent track that twists and turns over the steep hills.

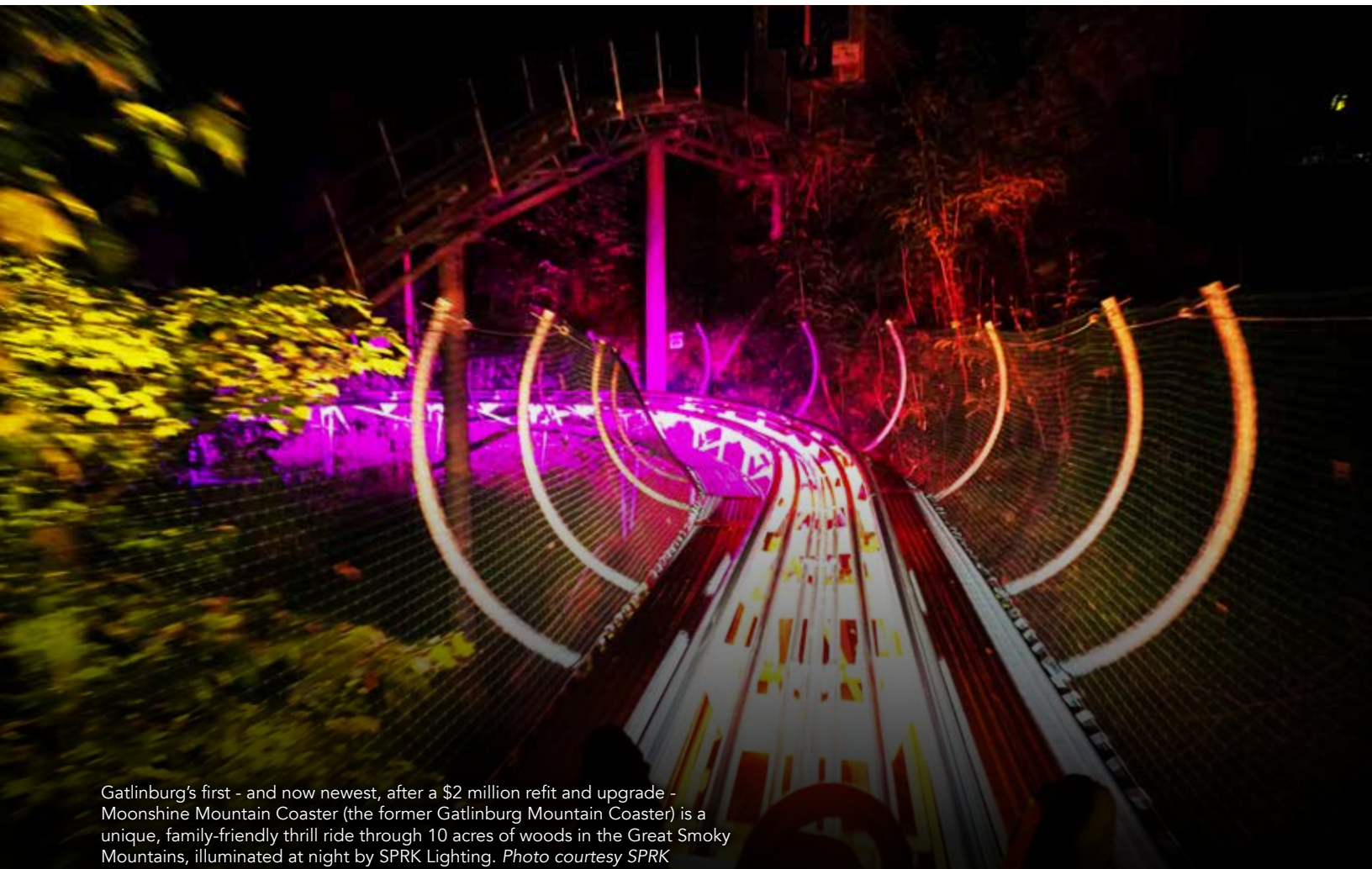
Offering rides after dark was an important component of Moonshine Mountain's business plan and an essential key to its success. "The plan was to use environmental lighting throughout the property to create an entirely new, nighttime experience that would bring back daytime guests and attract entirely new riders," says Klaus Machne, GM of Moonshine Mountain Coasters. With opening day approaching rapidly, Machne had some basic temporary lighting installed for the soft opening, but he knew far more was required to creatively light the forest along the nearly mile-long route of the ride if the target numbers of nighttime riders were to be attracted.

An online search led him to SPRK Lighting. "Matt and his SPRK team were exactly what we needed. He answered my call right away. I gave him the timeline, and immediately he was on it." Even before visiting the site,

Cooper reached out to suppliers to ensure sufficient inventory was reserved for the project. Within a week he visited the site, walked the entire route, and listened to Machne and the ride operator's hopes and thoughts for the installation. "Matt is very personal, very hands on. Very basic, straightforward, doesn't wear a suit," says Machne. "I asked a lot of questions, and it soon became apparent he knew his stuff. He listens to you, pays attention."

Machne was surprised at how quickly Cooper and his team arrived on site to begin installation. Within two months - and in time for the grand opening - SPRK Lighting's team had installed a new, programmable environmental lighting system across the rugged landscape. "Everyone at SPRK was very professional, very personable," he says. "Always pleasant to talk with, always willing to answer questions. Everything went smoothly, no bad surprises, only pleasant ones!"

Machne noted that with the new system's capabilities, the Moonshine Mountain Coaster lights can be reprogrammed for seasonal and holiday specials, offering different experiences throughout the year and growing repeat business. And since the coaster's reopening, after-dark ridership has nearly doubled ridership numbers. "Excitement, adventure - that is what is happening here after dark, thanks to Matt and his team from SPRK," says Machne. "Their quick work and the beauty and flexibility of their installation have helped ensure our success."



Gatlinburg's first - and now newest, after a \$2 million refit and upgrade - Moonshine Mountain Coaster (the former Gatlinburg Mountain Coaster) is a unique, family-friendly thrill ride through 10 acres of woods in the Great Smoky Mountains, illuminated at night by SPRK Lighting. *Photo courtesy SPRK*



The Moonshine Mountain Coaster has a specially-designed silent track that twists and turns over steep hills. *Photo courtesy SPRK*

Lost Canyon Christmas Cart Tour at Top of the Rock

Big Cedar Lodge's 2.5-mile Lost Canyon Cart Tour at Top of the Rock winds through the Ozarks past stunning rock formations, beautiful waterfalls and views of Table Rock Lake a few miles south of Branson, Missouri. While the golf cart ride offers spectacular vistas in the daytime, until recently it was idled after dark.

Last summer they contacted attraction designer Melody Matheny as creative director for their first-ever night tour and holiday experience on the course. "After research and viewing the site, we proposed a secular theme, incorporating Native American motifs, the natural environment and how holidays bring us all together," explains Matheny. "We wanted to emphasize connections to nature and wildlife, to the lore of the local Osage tribe, and between people - how important connections are during the holidays. As a nighttime experience, lighting design was critical and, for my design, it needed to evoke the inner glow you get when connected to people and places you love."

As with most holiday specials, the project was fast moving. Matheny turned to SPRK Lighting. "Matt's group has extensive knowledge about the area, they seem to know every supply house and resource," she says. "He and his team have great personalities, handle details efficiently, and most important, they communicate effectively. That can't be stressed enough when the clock is ticking."

With the project stretched over miles of rough terrain and the lighting team working long hours at night, Matheny was impressed by Cooper's attention to detail with every scene. "Matt was so hands on," she says. "He was everywhere, touching everything, checking everything. You can see his passion for lighting design and what he and his team are doing. They brought my visions to life."

Building for the future

SPRK Lighting has done well with a range of regional attractions and parks. Lighting design is a collaborative process very much like theater or film. Project-oriented and blending multiple disciplines, the specialty is an integral part of the unique, specialized world of themed- and location-based entertainment. "What a joy it is to work in this field," says Cooper. "Every day demands personal interactions and high trust levels with immensely talented people." His infectious excitement for the work, in large part, is why the firm's portfolio has grown rapidly in a few short years, including the projects above but also successful design and installs at Newport Aquarium Seahorses and their Christmas Show, Traditional Bank's



SPRK Lighting helped transform the Lost Canyon Cart Tour at Top of the Rock into a creatively illuminated night tour and holiday experience. *Photos courtesy of Bass Pro*



The SPRK Lighting team works on illuminating a bridge for Big Cedar Lodge. *Photo courtesy of Melody Matheny*

Christmas at Mustard Seed Hill, Chuggington Adventure Depot, Indianapolis Zoo Bicentennial Pavilion, Gideon's Bakehouse, Silver Dollar City's Rivertown Smokehouse Restaurant, and Mystic River Falls, to name a few.

SPRK Lighting is growing, with an appetite for more projects, especially when it comes to regional attractions. Their philosophy is that if you excel with the project and the client, more work will find you, and it is bearing fruit. "SPRK has shaped and illuminated some of our biggest festivals and projects," says Erica Rutledge, Senior Director, Guest Experience Development at Herschend Family Entertainment, parent company to many of the projects listed above. "They have a knack for creating impactful lighting at a cost our projects can afford. To us, that is invaluable and is what keeps us coming back with more."

With demand for their services growing, Cooper is building the scrappy SPRK Lighting team to be agile, responsive, focused on details, and with a practical, can-do approach. He knows that for both the client and his team, the guest experience is what matters most. "In the end, it all comes down to that moment when you see the guests' eyes grow big, hear a crowd go 'oohh,'" says

Cooper. "That moment never gets old. That's what SPRK lives for, that's why we'll fight to extract every last ounce of impact from every single lighting project."

More information:

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Gene Jeffers, former (2001-2013) TEA Executive Director, is currently serving as a Board member for the Greater San Gabriel Pomona Valleys American Red Cross and serves on the Board of the Historical Novel Society. He continues to write in a variety of genres. Based in Pasadena, Gene and his wife Carol (also a writer) look forward to traveling and spending more time with their two daughters, son-in-law and three grandchildren.



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The 29th Annual TEA Thea Awards

Special section

I recall going, as a member of the press, to the opening of a new ridefilm in the 1990s. I had written a story about the ride, and at the opening, found to my surprise that no one from the external creative team was there – not even the director. They had not been invited. Theme parks (and other types of venues) were not in the habit of publicly acknowledging their project teams. Why not? Once the project is done, the PR focus is on getting butts into seats, guests into queues, selling tickets. One might argue that acknowledging the design and production team doesn't further that goal – but doesn't it? The TEA has done a great deal to shed light on the complexities of these projects and to distinguish innovative contributors. That breeds respect among colleagues and between operator, supplier and creative – and it also increases public awareness. It puts themed entertainment up there with other forms of entertainment that openly credit their team members and celebrate their accomplishments. And that is a practice that helps to inform and develop audiences, fans and followers while inside the industry it stokes camaraderie, inspiration and discovery. Pull back the curtain – show the world how it was done – and everyone benefits.

Judith Rubin,
Editor

Much like peoples and cultures rely on rituals and ceremony to mark special occasions, seasons and accomplishments, the TEA Thea Awards Gala is an annual celebration of excellence in themed entertainment. For me, it is a tradition in the truest form of the word – an opportunity for experience and knowledge to be encapsulated, preserved and shared with future generations of industry professionals. It also happens to be a really fun evening that is an annual highlight on my calendar.

There are no surprise recipients (the list of awardees is announced the prior November at IAAPA Expo), so everyone comes to the gala without bias and in service of recognizing amazing experiences, frequently – though not always – created by TEA members. The annual Thea Awards Program (which I have had the joy of working on with Judith Rubin for many years) is the lasting record of the event, containing both credits lists and insightful information on each of the recipients.

There's so much to celebrate and learn from the people and projects put in the spotlight each year by the Thea Awards, starting with our cover story on Lifetime Achievement recipient Roland Mack. We hope the additional reporting presented in this special section of InPark adds to your appreciation of the TEA Thea Awards.

Martin Palicki,
Publisher

Thea Awards Gala to be produced by RWS Entertainment Group

The TEA has selected Emmy Award-winning experience company RWS Entertainment Group to provide full creative and production services for its 2023 and 2024 Thea Awards Gala. These services include stage design; media, graphic and video elements; entertainment; technical, production and stage management and oversight of AV, lighting, sound, construction, rigging and engineering.

The appointment of RWS as a Producer and Premier Global Partner brings the company's relationship with the TEA full circle. JRA President Keith James led the TEA International Board of Directors in 2001 and 2002 and currently presides on the Past Presidents Committee. Other JRA team members have served on TEA Divisional boards, the TEA International Board, the Thea Awards Judging Committee and the Executive Committee. In addition, the company has sponsored dozens of regional and international TEA events over the past 30 years.

JRA is the only consulting company with the distinction of two Thea Lifetime Achievement Award recipients – Jack Rouse in 2008 and Keith James in 2016. In total, JRA projects and individuals have received nine Thea Awards. Transitioning now from center stage to backstage, JRA's parent company, RWS Entertainment Group, looks forward to helping perpetuate the Thea Awards mission of celebrating creative and technical excellence, while helping the TEA to elevate and grow the event's global brand.

As for what audiences have to look forward to this year, the RWS production team plans to thematically link the Gala to TEA's new INSPIRE Week of programming. "The myriad sources of inspiration for themed entertainment creators are the theme for this year's Thea Awards Gala," said Monica Miklas, RWS Manager, Immersive Creative Content. "Recipients have been invited to reflect on how their own cultures, experiences and imaginations have shaped them – and how they might inspire others. The show itself will feature a sizzling live band and more than a few surprises!"



Roland Mack, co-founder and managing partner, Europa-Park. All photos © Europa-Park

Meet Roland Mack

Europa-Park founder Roland Mack is being honored with the TEA's Buzz Price Thea Award, recognizing his outstanding entrepreneurial achievements and great commitment to the industry. He shares his story.

by Becci Knowles

The Thea Awards have been presented annually since 1994 by the Themed Entertainment Association (TEA) and while they now recognize a wide range of projects, people and technologies, the Theas began with a single award for lifetime achievement, conferred on Harrison "Buzz" Price. After Price's death in 2010 at age 89, the lifetime award was renamed in his honor. Over the years, recipients of the Buzz Price Thea have included the likes of Mark Woodbury, Nancy Seruto, Jeremy Railton, Phil Hetteema and many others. When Roland Mack receives his trophy at the 29th Thea Awards Gala, held in California at Disneyland Resort in April 2023, the visionary leader from Baden who says, "a smile is a smile the world over" will be in great company.

The Thea Awards were created to celebrate excellence in the creation and production of compelling places and experiences and to promote public awareness and respect for the individuals who created them. While the Thea Awards are "specifically not focused" on the owners and operators of attractions who are already well served by IAAPA, "every once in a while, a great lifetime achiever who meets all of the creative criteria also just happens to be an owner," stated the Thea Awards Judging Committee in their official remarks, adding "there are many reasons why Roland Mack is the unanimous choice as the recipient of the Buzz Price Thea Award - Recognizing a Lifetime of Distinguished Achievements."



Roland with Europa-Park mascots, Ed Euromaus and Edda at the opening of the new season.

Born into the seventh generation of a now 247-year-old family company that manufactured rides, Roland Mack grew up fascinated by the world of circus and travelling showmen. Until the late 20th century, Mack Rides was famous for trailers and caravans for showmen. But as early as 1921 Mack Rides created its first roller coaster, and later other rides.

Roland recalls, “Our family company Mack produced high-end carriages and caravans for all the large circuses and produced attractions for fun fairs and traveling showmen. I remember many encounters with the big, famous circus directors. It was common for them to be invited to our house, which was on the company premises, to have dinner while they finalized their deals. I was fascinated by this world from a very young age, and the Mack family still has strong ties to some of the circus families and showmen to this day. Theme parks came later, when my father and I began to go on trips to the USA, visiting the Disney parks over there for example.”

Roland conceived the idea of Europa-Park with his father, the late Franz Mack, in 1972 following a tour of the U.S. They wanted it to serve a dual purpose: to provide entertainment for all ages and to act as a space in which to present the different roller coasters in the Mack Rides portfolio to their customers and the public. Just three years later, in 1975, Europa-Park opened its doors in Rust, just 30 minutes away from their factory.

Today, Roland and his brother Jürgen lead a true family business which now involves the eighth generation. Roland’s sons Michael and Thomas have long been part of the management, while his daughter Ann-Kathrin is a qualified architect and authorized signatory.

As a leading manufacturer and operator, the Mack family is in a unique and powerful position, in that it has an insight to and understanding of multiple facets of the industry. To this day Europa-Park is Mack Rides’ show floor, while Mack Media and Mack Animation are creating new ways for visitors to experience Europa-Park’s content, both inside and outside of the park.

Innovation and quality are – and always have been – the Mack family’s motivation and driving force. The Buzz Price Award is, says Roland, “an important signal to decision-makers that value is created not only with production, but also with service providers like us. The fact that we are in Rust, Baden and are one of the best theme parks in the world is mainly due to our consistent implementation of innovation and quality.” The presentation of the award coincided perfectly with - for the first time in its almost-50-year history – Europa-Park exceeding the six million attendance mark. (Europa-Park was in fact honored with the Thea Classic Award in 2013, recognizing an attraction that has stood the test of time.)



Born into the seventh generation of a now 247-year-old family company that manufactured rides, Roland Mack grew up fascinated by the world of circus and travelling showmen.

When Roland Mack receives his trophy at the 29th Thea Awards Gala, held in California at Disneyland Resort in April 2023, the visionary leader from Baden who says, “a smile is a smile the world over” will be in great company.



Roland says that developing Europa-Park into the resort it is today has been the single most challenging task of his life.

Continuous expansion

From its earliest days, Europa-Park had the perfect combination of entertainment, culture, and rides for the whole family – almost all of them constructed by parent company Mack Rides in Waldkirch.

Despite the initial reservations of the local press, Europa-Park was a hit with the fun-loving public – 250,000 visitors came in 1975 and the millionth mark was met for the first time in 1978.

A key step in Europa-Park’s journey to international acclaim came with the opening of the Italy themed area in 1982, and the implementation of the European theme concept in collaboration with stage designer and film architect, Ulrich Damrau. Holland, England, France, Scandinavia, Spain and the German Alley were added in 1984, 1988, 1990, 1992, 1994 and 1996 respectively, among others, followed by Iceland in 2009. Commenting on the political and social change that has taken place since the European theme was first introduced, Roland says: “Everything has its time. Of course, some attractions and themes are less relevant today than they were when we first built them maybe 30 years ago. That’s why we are constantly developing, changing, building new attractions.”

Over 80% of Europa-Park’s guests are repeat visitors, and Roland and the team want every visit to be as exciting as the last. “As for Europe, I am a strong believer in Europe, which is why we continue to develop this concept. We have a longstanding relationship with our neighbor France, many visitors and employees cross the border every single day. It is part of our DNA, not least because we only live a stone’s throw away from France.”

Roland was very much ahead of his time when he identified the future of Europa-Park as a resort and conference center. A new era began in 1995 with the opening of ‘El Andaluz’ – the first hotel in a German theme park. In addition to lengthening stays for families, the increased range of event and meeting rooms on offer meant corporate business grew too. Founded in 1998, well over 1,000 events a year are now handled by the Mack family company, Confertainment. Europa-Park is also a significant media location, popular as a set for national and international film and TV productions throughout the year.

Under Roland’s direction, in 2019 Europa-Park resort added Rulantica, a sprawling, indoor and outdoor waterpark, one of the largest in the world. The Europa-Park dark ride themed around the story of Rulantica, Snorri Touren, was honored with a Thea Award for Outstanding Achievement and the Thea Judging Committee described Rulantica as “pushing every perceived boundary of what indoor waterparks can be.”

“The development of Europa-Park is, simply put, incredible,” says Roland. “There is no way we could have anticipated this success story when the first construction works started, in this formerly quite poor little fishing village of Rust in South-West Germany. I sometimes wonder if we would have had the courage

to start this theme park, had we known what lay ahead. After all, the Europa-Park Resort, together with our six hotels and the Rulantica water world, is one of the largest and most popular theme park resorts in the world now.”

Roland says that developing Europa-Park into the resort it is today has been the single most challenging task of his life. Asked to pick out individual events, the large fire in 2018 comes to mind for him straight away. “It caused damage of around €100 million and destroyed one of our most-loved family attractions, the Pirates in Batavia. Fortunately, no one was hurt.” Europa-Park emerged from the 2018 fire stronger than ever. Roland says that the park’s guests were a guiding light in the reconstruction. “We received incredible amounts of letters, messages, pieces of artwork, all full of positive and encouraging words. Generations have made memories in Pirates in Batavia, and we wanted to make sure that the rebuilt attraction would honor that. So, we rebuilt it as close to the original as possible while making use of all the latest technologies and the highest safety standards.

“Shortly after that Covid became the number one topic, followed by a war in Ukraine, rising inflation and energy costs. All of that while we had invested over €200 million in our new water world Rulantica, before having to shut down again because of the pandemic only months after opening.”

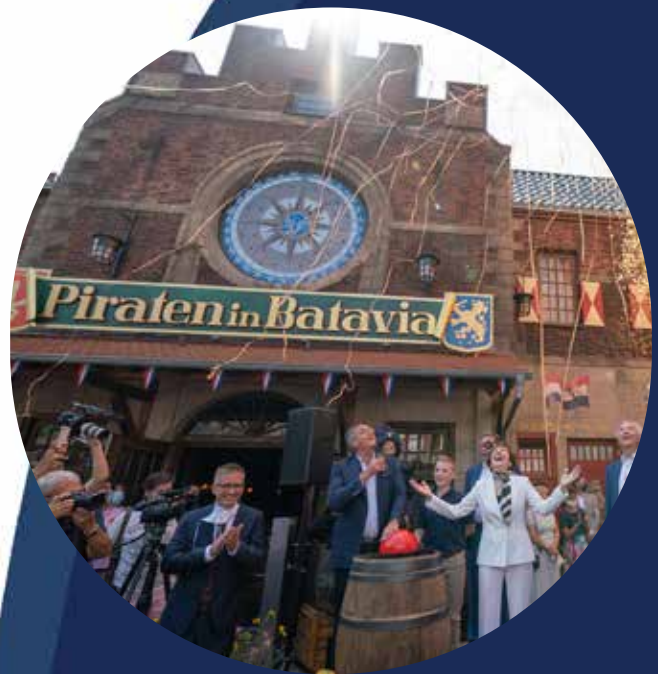
Leading by example

Is there anything he would have done differently in the early years? “I am sure that there are times and individual moments where maybe with hindsight, we would have gone a different way. But I often remember what my father said: ‘I think we did more right than wrong.’ I guess that’s a fair assessment. Plus, we tend to look forward, to the future, and don’t get stuck in the past too much.”

The mix of rides for young and old, detailed theming and excellent gastronomy are often described as Europa-Park’s greatest strengths. “Absolutely, that’s true,” says Roland. “We have great roller coasters, but we make sure that there is always a nice balance for the whole family. That’s what it is all about at the end, a great day out with the family, often even three generations, and everyone will leave the park with a smile on their face, whether they’re 4, 14, 40 or 84 years old.”

The overall quality is also incredibly important and much of that is derived from being a family business. “We are out and about every day and we see many things, we pick up the piece of paper that has been dropped, hand in a lost item or point out the lightbulb that needs to be changed. But the interesting thing is, that our employees are as passionate about the quality of our product as we are. It’s true what they say, if you lead by example, you’ll be able to create a team that is equally as invested in providing the best possible service for our guests.”

Asked which of Mack’s technology/ride innovations have had the most impact on the industry, Roland says, “I think and hope that many of our innovations have had a great impact on the industry.



The official re-opening of Pirates in Batavia, July 28, 2020

“Generations have made memories in Pirates in Batavia, and we wanted to make sure that the re-built attraction would honor that.”



Roland and his pirate alter-ego at Pirates of Batavia. Roland’s children had the wax figure made for him as a surprise - the figure is now in the ride itself.

“ We are out and about every day and we see many things, we pick up the piece of paper that has been dropped, hand in a lost item or point out the lightbulb that needs to be changed.”



Members of the Mack family celebrate the opening of Rulantica



As early as 1921 Mack Rides created its first rollercoaster, and later other rides.

It is our aspiration to be among the leading manufacturers in the world, so naturally we will have an impact. If I had to name a few highlights, the blue fire Megacoaster was certainly a game changer for us as a company. Further, our VR Coaster technology has proven incredibly successful and with YULLBE, our VR experiences, we have followed up and kept improving the technology. The most recent highlight is certainly our restaurant world-first Eatrenalin. It truly is a dining experience like nothing I've ever seen anywhere in the world.”

This talented family has built a business with many facets and while there are many benefits to being both a leading ride manufacturer and operator, one wonders if the two ever come into conflict. Reflecting on the irony of business when talking about Time Traveler, Roland once said: “My biggest problem is that it's one of the best rides Mack Rides created and it's at Silver Dollar City [Branson, Missouri, USA], not Europa-Park.” So, how do you balance the needs and aspirations of both sides of the business?

“That's a good point, and I said that of course in a joking manner,” remembers Roland, smiling. “We have a good balance of rides, and it is only natural that, if you develop good rides for your own park, you'll create interest from other parks to buy something similar. After all, that is the whole idea! With time, rides develop further and so sometimes, a ride, based on something we built for Europa-Park, will turn out even better somewhere else. But I wouldn't see that as a bad thing. That's testament to the extremely talented engineers, storytellers, product designers, and so on that work for our company. All things considered; the benefits far outweigh the disadvantages.”

Roland has also spoken previously about having a strategy of continuous expansion. He elaborates: “We have a saying in our family business, and that's 'stagnation is regression.' That's why we constantly develop our parks and open new attractions every year. We are currently building a new Croatia-themed area at Europa-Park, together with a new roller coaster due to open in 2024. It will be a Big Dipper style ride with a great storyline. In Rulantica, we have recently completed a new slide tower, adding additional seating, food-and-beverage offerings and the largest slide in our water park to date. And finally, we have just opened our new restaurant, Eatrenalin. Here, we combine media technology, storytelling and the highest level of gastronomy, creating a dining experience like nowhere in the world. All rounded off with our floating chairs, the latest development by Mack Rides and patented worldwide.”

With energy costs rising, Europa-Park is investing in a plant that will produce around 25 gigawatt hours of electricity from renewable energies. The total investment amount of the project is around €30 million and it is scheduled to go into operation in 2024. In the long term, Europa-Park will then be able to supply itself with renewable electricity largely independently of other energy sources, particularly in the summer months.

Asked whether he ever considered *not* joining the family business, Roland says: “No, to be honest, that wasn't really an option for me. I did, however, first join the production company as a mechanical engineer.” Family businesses operate with their own unique culture, and Roland takes great pride in what that means for visitors: “Family companies don't think in business reports and dividends, they have a much more long-term



Outside Rulantica, which opened in 2019. This sprawling, indoor and outdoor water park is one of the largest in the world.

“ We have a saying in our family business, and that’s ‘stagnation is regression.’ That’s why we constantly develop our parks and open new attractions every year.”

Europa-Park has a policy of continuous expansion.



approach, focusing on the next generation rather than the next shareholder meeting. We also have a much faster decision-making process than large corporations. In addition, and that is another very important factor, we as a family company have a face, we are present at Europa-Park, Rulantica, in our hotels, and our guests can see that. It creates a certain trust between us and our guests, but it is not without challenges. A challenge we love. I wouldn’t be a good CEO of a large corporation, that’s just not our world. I am a family company man with heart and soul, in the seventh generation. Ultimately, it is my job to make sure the company is in the best possible shape to be passed on to the next generation.”

Looking to the future

As a previous IAAPA chair, and inductee to its Hall of Fame, Roland and the family business continue to have a very close relationship with both IAAPA and the TEA, based on mutual trust and many years of working together closely. Europa-Park will host the 2023 TEA SATE Europe (their second time hosting TEA’s signature Experience Design conference), which is just another example of how closely Roland is connected to the associations that represent our industry. “Their work is very important, and we support them where we can,” he says.

Roland’s commitment to the future of the industry also means finding and nurturing young talent. Ten years ago, he created a scholarship for mechanical engineers with the Karlsruhe Institute of Technology to support and encourage young engineers to pursue a career in the industry. “We are also involved in a range of initiatives run by IAAPA, and several members of our team hold roles in committees and do their part to promote our industry and pass on the knowledge we gained from decades of running a theme park and manufacturing rides.”

As someone who has long believed that it’s our differences that unite rather than divide us, Roland says: “I believe our industry is a forerunner in the world when it comes to inclusion and equality. We spoke about it often at IAAPA. We can provide an environment that makes it easy to meet people from all over the world. The theme park industry takes a leading role in promoting this important topic. It’s crucial that we keep educating our teams and that we lead by example.

“In over 50 years of my career, I have enjoyed going to work almost every day. It’s our job to put smiles on people’s faces, it doesn’t get better than that! Seeing the joy in our guests, the personal encounters, the internationality, and diversity in our industry, it all makes it a perfect job. There is one international language, and that is laughter. That’s what I love about my job.”

With recipients of the Buzz Price Award automatically eligible to sit on the Thea Awards Judging Committee for life, we have a sneaking suspicion that Roland will still be playing his part in years to come. •••



Becci Knowles is a U.K.-based writer and editor with 20 years’ experience in trade and consumer press. Becci’s first taste of the themed attractions industry came in 2015 with a visit to Gothenberg, Sweden, for IAAPA to support the Park World and GlobalAmusements@play team. She went on to edit Park World from 2018-2022 before deciding to go freelance, making the move into travel and lifestyle before returning to the visitor attractions industry for InPark.

Melissa Ruminot

TEA's new President is proud to usher in change

by Gabrielle Russon



Melissa Ruminot

Ten years ago, Melissa Ruminot was a novice in themed entertainment. Now, she's become a rock star in the field. She is the new (as of January 2023) International Board President of the Themed Entertainment Association (TEA), and she is Vice President of Marketing and Client Development at The Companies of Nassal. Ruminot is only the third woman to lead TEA's International Board of Directors in the organization's 32-year history. At 40, she is also among its youngest executive leaders. She represents the changing face of the themed entertainment industry.

"Through her hard work and dedication to learn our business and the industry, Melissa has evolved to become an extraordinarily influential individual," said William P. Nassal, a partner at the Companies of Nassal.

Ruminot said she ran for TEA President because she wants to help effect change. She wants to see the organization continue to address the true breadth of the industry, which extends well beyond theme parks. Themed experiences at resorts, zoos, cultural institutions, cruise lines and brand activations in retail for promoting new brands are the types of experiences that she wants TEA to elevate its advocacy for.

"We have to think more broadly about the different types of industries we can serve and the stories we can tell," said Ruminot. "That's the change in the industry that I see really TEA being on the cusp of. Together, we can champion that this is so much bigger than just one way to tell a story."

Life is busy, with her Nassal Vice President role sending her around the world for projects, plus her presidency role at TEA, in addition to being a mother of three children (ages 7, 13, and 14). "It's refreshing, I think, to see a leader who is also a mom, juggling real life and taking on a leadership position within the industry," Ruminot said, adding it sends a message to others: "This is obtainable. You can do this."

Colleagues say she has the personality and the right mentality to excel on the job at TEA. "She operates with high integrity. She operates under the banner that it's all about the members, and

what she can do to help all of us as members be more successful in our jobs, in turn helping our companies grow," said Roberta Perry, a founding TEA member who served as the organization's president in 1995-1996 (and its first female president). "She's the right president at the right time.

Women missing on the podium

For TEA, diversity has emerged as an important issue as the organization took a deeper look last year on how to better represent its members. Steps were taken to push for more inclusivity and better representation. TEA approved a new strategic plan that adapted core values guiding the organization to take into account the importance of diversity, and an overall super-strategy for the association - to apply when deciding on representation on industry or thought leadership panels and sessions being developed by TEA. The association has also encouraged members from a wide range of backgrounds and industry perspectives to step up and seek leadership roles when the organization holds elections.

Because the association is primarily made up of companies and not individuals, TEA doesn't maintain data on the gender breakdown of its membership. Anecdotally, Perry sees a roughly 50-50 split between men and women at events. But it's clear there has been a lack of women on the podium if only three women have ever served as president of the association over more than three decades (Christine Kerr was TEA's second female president, serving 2013-2014).

"We talk a lot about diversity," Ruminot said. "Traditionally, people have entered this industry with degrees in such fields as architecture, interior design, film, theater crafts, engineering or construction management." In a construction- and technology-heavy field like themed entertainment, top leadership tends to skew upper-middle class, as people from diverse backgrounds often face barriers accessing affordable higher education. It's a systemic issue facing many other industries as well; themed entertainment isn't unique in this challenge.



Extreme Engineering's Rob Wyatt, TEA Master John Lindsay and Melissa Ruminot explore Star Wars: Galaxy's Edge at Disneyland

Ruminot sees one possible solution as finding ways to reach the next generation while they are middle school and high school students, to expose them to the potential for careers in themed entertainment, educate them on the opportunities that exist in the industry, and help create a more diverse future workforce.

“How can you be innovative if you always have the same voices trying to innovate? You need a diversity of perspective,” Ruminot said. “And how do you do that? You need to look at other ways and other areas in which you are getting people as a workforce to join this industry or to know about it.”

Still, Ruminot already sees changes happening as more women are promoted to higher-level positions in individual companies – the stratum from which candidates for TEA President can generally emerge. “Women are becoming more recognized as part of the leadership team and for their expertise – which is refreshing to see,” Ruminot said. And with that, more women, like Ruminot, are volunteering to step into higher-profile roles in TEA.

“There’s a huge aspect of women in leadership positions kind of rising up and saying, ‘I’m willing to do this,’ and taking on the balance of work, life, and volunteerism,” she said.

The TEA president job carries a heavy workload that, Perry noted, is a challenge for any member to take on. “There are women out there who definitely could be elected as president, but they have to make the decision. It’s like having a full-time job,” Perry said. “In my experience, not every company is willing to give up one of their employees for a year. You need to have a company that totally supports you being in that role.” Nassal, where Ruminot works, has been supportive of TEA from early days, Perry noted.

Nassal’s complementary business

Ruminot, a Connecticut native, studied marketing at Western New England University in Springfield, MA. She interned at Six Flags New England in college, doing media buys and marketing, and loved visiting theme parks on vacation with her kids, but “the theme park industry was never on my career radar.” Instead, she worked in other fields, like hospitality and finance.

While on a shopping trip in Vermont, Ruminot struck up a conversation with another customer at the hotel lobby bar who turned out to be William P. Nassal. “In true Melissa fashion, she owned the room and disarmed everyone,” Nassal said, recalling their chance meeting. “Melissa has never met a stranger.”

While Nassal had plenty of suggestions for Ruminot’s next Florida vacation, he also had other ideas. Ruminot was going to get something more than just travel advice. Soon, she was traveling to Florida to meet the Nassal team and started a new career with the company in 2012.

“I’ve always considered that our introduction really reinforced the thought that things are meant to happen. Melissa had just decided to make a career change and we had just made the decision to seek out someone to drive the sales and marketing efforts for our companies,” Nassal said. “I convinced her to meet with my business partners in Orlando and I’m proud to say that more than 10 years later we are still working together and she is our Vice President of Sales and Marketing.”

On a recent day, Ruminot led a tour of the 100,000-square-foot facility, a former recycling plant near downtown Orlando that houses a flurry of activity. Between its Orlando and Los Angeles facilities, the company employs 350 people. On the tour, a CNC machine cuts a foam piece so it looks like fallen snow. Workers are fabricating custom pieces – top secret – near signs forbidding photography in covered spaces designed to protect against theme park bloggers and influencers flying overhead (this form of lay reconnaissance really does happen). Ruminot is often the first person in the room representing Nassal as clients show their ideas and ask the question: Can the impossible be built?

The communicator

Starting out in a new industry where she wasn’t familiar with construction or design, Ruminot was hungry to learn, at Nassal and in the industry in general, when she joined TEA. She began volunteering at the check-in desk at TEA events in 2012, which helped her make connections and grow her knowledge base. “I just completely immersed myself into this world. I started asking questions and really thinking, ‘OK, I don’t know what this means. Who’s the right person for me to ask?’” Ruminot said. “Getting involved in the TEA was a way for me to understand the industry.” She was named president of TEA’s Eastern North American Division Board in 2018 and 2019. “It



Superman stops for a photo with Melissa Ruminot, Matt Barton of 7thSense and Color Reflections' Shannon Martin during the 2019 TEA Thea Awards Gala



Nassal team members Stephen Dodson, Mary Narciso and Melissa Ruminot at the grand opening of the Mississippi Aquarium in 2020.

was an opportunity for me to connect directly with members. I heard on a day-to-day basis what members need and want and was able to cut the red tape and cut the politics," she said.

Outside of TEA, Ruminot also served on the Annual Conference Planning Committee for the Association of Zoos & Aquariums. According to Ruminot, she was the only commercial member on the board, which pushed her outside her core strengths to look at challenges differently, since animal care was the organization's top priority. She brings the same, open-minded philosophy to her roles with TEA and Nassal. She knows she isn't the expert in building or designing attractions. Instead, her role is the connector, the communicator, the person who "makes sure the right people are talking to the right people and asking the right questions."

Roberta Perry is certain Ruminot's past experience in TEA will make her a successful president. "She has an amazing ability in her interactions with her ability to communicate, to get people to go, 'Hey, I'll help you,'" Perry said. "It's all about relationships. It's all about connections." •••

Gabrielle Russon (gabriellerusson@gmail.com) is a freelance journalist who lives in Orlando. She previously covered the business of theme parks for the Orlando Sentinel, earning several statewide and regional honors for her coverage over theme park injuries, the economic challenges facing theme park workers and the pandemic's impact on the tourism industry. A Michigan native,



she is a Michigan State University graduate and has worked at the Sarasota Herald-Tribune, the Toledo Blade, the Kalamazoo Gazette and the Elkhart Truth during her newspaper career. In her spare time, she loves visiting Orlando's theme parks and running marathons.



Melissa at Porter Robinson's Second Sky in 2021



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A new heartbeat

TEA Summit shifts focus to become TEA INSPIRE

interviews by Judith Rubin and Martin Palicki



Luc Mayrand



Melissa Ruminot



Shannon Martin

TEA's annual big weekend at Disneyland Resort (Anaheim, CA) that wraps with the lavish Thea Awards Gala (April 15, 2023) is preceded by TEA INSPIRE, a two-day conference (April 13-14). Formerly known as the TEA Summit, the conference endeavors to make the most of the weekend's unique opportunities for professional development and networking, as industry professionals gather from all over the world to attend the Thea Awards. Along with its new name, TEA INSPIRE (teaconnect.org/tea-inspire.html) has ushered in changes to programming, format and focus, explained here by members of the Summit/INSPIRE planning committee: TEA International Board President Melissa Ruminot of The Companies of Nassal, TEA Executive Committee Education/Content Liaison Shannon Martin of Color Reflections, and Past Thea Awards Judging Committee Chair Luc Mayrand of Walt Disney Imagineering.

Tell us about the impetus to re-imagine TEA Summit as TEA INSPIRE.

Melissa Ruminot: A primary goal in TEA's Strategic Plan is to be a globally diverse, growth-oriented, and essential business forum for the themed entertainment industry. Within that goal are three top priorities:

- Provide opportunities for meaningful connections between members to diversify, strengthen and grow the TEA membership
- Increase participation and impact of TEA products, programs, and services
- Enhance member touchpoints (virtual and in-person) to expand engagement and increase member retention

These goals, coupled with attendee and leadership feedback, necessitated a deeper examination of TEA's signature tentpole event - TEA Summit & Thea Case Studies - and how it can help advance the strategic objectives. This includes, but is not limited to, redefining the audience and objectives for the event, leveraging TEA's strong connection to excellence (as

demonstrated, for instance, by the Thea Awards, including the new Catalyst Awards, as well as the TEA Masters program), and re-branding the event with a new name and purpose.

The decision to rebrand and reposition Summit Day One and Thea Case Studies (Day Two) into two unique programs was based on input and suggestions from leadership and the general membership [more details below].

Luc Mayrand: We got really excited to re-invent the components of the Thea Awards weekend into an opportunity to re-energize through the power of inspiration. We worked together and with several other collaborators to bring a user point-of-view to the event, to better connect the content and relevancy, and give it a new heartbeat.

Coming from my participation on the Thea Awards Judging Committee itself, my role was to highlight what the Committee saw in these projects, to help set the through-lines that connect the overall event, to group Thea-honored projects under themes with expert moderators, and ultimately to create an exciting and meaningful experience for the attendees.

Shannon Martin: Where else do you get to raise your global industry knowledge and leave INSPIREd to create the next best thing through peer-led educational content from Thea Award recipients? Or, expand your professional network throughout the event in educational sessions, networking lunches, and receptions? These three days are special, and we're making them even more special by targeting them closely to what members and the industry need today.

Tell us about the structure of the event.

Melissa: The new TEA INSPIRE program offered in 2023 reflects the effort to evolve and grow the Thea Case Studies segment while preserving and expanding the executive education historically offered on Day One of the former TEA Summit.

The morning of Day One was rebranded as INSPIRE Leadership Forum - Fostering Spark from the Top, Laying a Foundation for Executive Education. It takes place Thursday, April 13, 2023 (including lunch). It is a separately ticketed presentation and workshop for company owners, with attendance limited to 100.

This inaugural 2023 Leadership Forum event will feature an expert facilitator and small group roundtable discussions designed to facilitate networking and gather information, to help develop an expanded C-level program in the coming year. Led by TEA Past Presidents Steve Birket and Christine Kerr, this event will be the steppingstone needed to create a fully programmed Executive Leadership Forum in mid-2024 as an entirely newly branded program of strong, impactful CEO / Ownership content to serve our members.

Thea Case Studies (Day Two) has been rebranded as TEA INSPIRE 2023, devoting one-and-a-half days to the celebration of industry excellence as a source of inspiration. INSPIRE will expand Thea Case Studies presentations to enable more personal interactions with the award recipients and their partners in the delivery.

- Thea Catalyst Award recipients are given more time on stage to highlight their contributions to the industry
- More time for focused Q&A with award recipients and their delivery partners to dive deeper into projects on a more intimate scale
- More networking time for catching up with colleagues, partners in the industry, and meeting new TEA members

Tell us about the group driving this effort within TEA.

Melissa: As International Board President, I am working closely with members of the Summit / INSPIRE Planning Committee, including:

- Shannon Martin (EC Education/Content Liaison)
- Summit Planning Committee - Steve Birket & Christine Kerr (past chairs of TEA Summit Day One; representing Past Presidents Committee)
- Thea Awards Case Studies Planning Committee - Luc Mayrand (Past Thea Judging Committee Chair) and Brian Morrow (Case Studies)
- TEA Headquarters, led by Executive Director Lindsey Nelson, for logistics planning and budgeting

This group has been heavily involved with content curation, speaker procurement, and planning (including budgeting and post event evaluations) of TEA Summit for the past several years. When overwhelming attendee feedback indicated the need for dedicated programming for executives and allowing more time for Case Studies, Catalyst panels and attendee networking, a recommendation was made about expanding Case Studies to 1.5 days and shifting traditional Day One content to a new approach, the suggestion was made to rebrand to create distinction in the programming, hence the birth of INSPIRE. It should be noted

that this approach was also supported by members of the Thea Committee who approached TEA last summer suggesting modifications to the program format for Case Studies. And simultaneously, but on a separate path, the TEA Past Presidents Committee and the International Board have been discussing ways to facilitate executive-to-executive education and networking in the form of some type of Executive Forum.

What makes the Thea Awards weekend so compelling?

Luc: The Thea Awards are our industry's version of the Oscars - but coming to the TEA INSPIRE weekend is not just about a fabulous night of celebration, it's also a unique chance – thanks to the Thea Case Studies - to look behind the curtain at these examples of excellence that our fellow creators made. Sharing knowledge is essential to our personal growth, and to our industry's vibrancy. Plus, it is great fun to hear the stories of what happens on the way to the magic, not to mention it's also a chance to visit, through the eyes of their creators, many amazing projects around the world in a single day.

The current slate of Thea recipients shows that our industry continues to be vibrant and to evolve, as we highlight projects with new formats, new venues, new voices, new technologies, new ways to interact with guests - all the while still producing incredible traditional attractions and parks. This is an exciting time. Overall, it's energizing and positive, an important breath of fresh air, and a unique opportunity to meet some of the folks who made these projects.

Shannon: Whether you're a long-time attendee, or you've never attended, or something in between - hold onto your seat! The Theas weekend is an incredible ride, and truly my favorite event. I remember my first time attending, I was just in awe with the amount of information I took in, the people I was able to connect with and the overall experience of celebrating what we do. Not to mention getting dressed to the nines for the Thea Awards Gala, where you will raise your glass and toast all the honorees. There's nothing else like this. If you do one thing this year, this is it!


How many people do you expect to attend?

Shannon: We project between 500-600 attendees for INSPIRE and 600-700 attendees for the Thea Awards Gala. We are limiting the Leadership Forum to 100 to ensure we stay true to the event purpose and maintain a strong and intimate forum for the executives in attendance.

What are some of the other TEA tentpole events to look forward to in 2023?

Melissa: SATE Europe runs May 3-6, 2023 at Europa-Park, Germany. SATE North America will run in October 2023 (date & location to be announced).

For a list of events held globally, visit <https://www.teaconnect.org/all-events.html> •••



The “Interstellar” covered bridge uses 40 Christie HS Series and 10 GS Series 1DLP laser projectors for its video displays. *Photo credit: Marvel Vision*

Touring the cosmos

AV tools play a key role at Thea-honored Shanghai Astronomy Museum

by *James Careless*

In November 2022, the Shanghai Astronomy Museum (SAM) was named as a recipient of the TEA Thea Award for Outstanding Achievement in the Science Center category. (The award will be officially conferred at the TEA Thea Awards Gala in April 2023.) It’s a prestigious recognition of the extensive, 420,000-square-foot (38,000-square-meter) facility, open since July 2021 and home to the world’s largest planetarium plus several exhibitions that express the scale and majesty of the cosmos in ways designed to be as awe-inspiring as they are educational, making the most of audio-video enhancement.

From the Thea Judging Committee’s official remarks: “The Shanghai Astronomy Museum utilizes bold immersive spaces and imaginative experiences. Visitors are encouraged to momentarily forget the limitations of space and time in the museum, leaving reality and Earth behind as the perspective of ‘seeing the Earth’ is enlarged.”

With the assistance of Wincomn Technology, Marvel Vision and Zhongqing Yingye Group, projectors, media playback and show control systems made by Christie are now helping deliver the content to impress and educate SAM visitors at many of the Museum’s featured exhibitions. Wincomn Technology is a

distributor of Christie projectors in China, while Marvel Vision is a distributor of Christie Pandoras Box media and show control systems there. These companies provided technical consulting, program design, product delivery, and systems integration services to the Museum during the SAM project.

The “Evolution of Earth” exhibit uses live motion video projected onto a 66-foot (20-meter) diameter globe to show how the Earth has changed over its lifetime. The content is displayed by seven Christie D20WU-HS 20,600 lumen projectors.

The “Interstellar” exhibit features interactive projections along a covered bridge, where visitors’ images are displayed in real-time as galactic stardust on a wall 196 feet (60 meters) long and 13 feet (four meters) high. The visuals in “Interstellar” are provided by 10 GS Series 10,875 lumen projectors.

In the “Odyssey” exhibit, content is projected onto a 164-foot (50-meter), ribbon-like “cosmic thread” using 10 DWU630-GS projectors plus Pandoras Box Software. “The content projected on the gallery is a mysterious interstellar river,” says Tony Chen, Wincomn’s General Manager. “Visitors can interact with the display



Evolution of Earth is displayed by seven Christie D20WU-HS 20,600 lumens 1DLP laser projectors.
Photo Credit: Wincomn Technology

by touching the wall, creating a wonderful experience of being in space, full of fun and novelty.”

Challenges and solutions

Throughout the SAM, AV technology is out in full force – meeting display challenges of all kinds as projections wow visitors.

“Our HS Series and GS Series projectors are well-suited to challenging installation spaces like the Shanghai Astronomy Museum, thanks to their high light output, ultra short throw lenses, and small form factors,” notes Suhan Bijai, Associate Product Manager, Christie. Supporting vivid imagery is Christie’s BoldColor technology. It uses red and blue laser diodes, video processing and specialized software to create the color balance needed to deliver bright, life-like color, and an enhanced visual experience.

“This is one of the most unique projects we have embarked on in China, not just in terms of its physical scale, but also for the types of advanced AV technologies that have been implemented across the entire facility,” says April Qin, Christie’s Senior Sales Director for China.

There were significant challenges associated with translating the Evolution of Earth, Interstellar and Odyssey concepts into reality.

A case in point: To make the “Evolution of Earth” projection onto the sphere both realistic and believable, Wincomn needed to address three major technical challenges.

“First, the astronomy museum is a place for popular science, so projection displays are required to reproduce imagery with the highest level of accuracy,” says Chen. “Second, due to space constraints, it is necessary to ensure that the projection perfectly covers the entire sphere, and to place the projectors so that the content will not be obstructed by other building structures. Third, because the outer sphere projection has no latitude and longitude lines to refer to, it is difficult to calibrate the displayed images to deliver perfectly full coverage of the entire sphere.”

Through a combination of hard work, the projectors’ built-in warping and blending capabilities, and meticulous calibration Wincomn was able to deliver perfectly aligned, seamless imagery on the sphere and fulfill the guest experience vision – to make it seem as if the Earth’s actual 4.6-billion-year history is unfolding right before their eyes.

Wincomn also tackled the challenge of projecting onto the “Interstellar” covered bridge. Making this happen was no mean feat: The width of this gallery was relatively narrow and there was extremely limited space to mount the projectors. In response, Wincomn chose to use projectors with ultra short throw lenses. Chen explained that these were placed in custom-designed mechanical structures, for precise installation on the ceiling.

The Thea Judging Committee noted that “Each space, whether it be a long corridor, narrow space, bridge, or dome, is carefully and purposefully crafted for the exhibit,” and “Each exhibit’s design fully capitalizes on the opportunities afforded by the museum’s architectural features.”

Meanwhile, Marvel Vision took on “Odyssey.” “The challenge we faced was how to correctly display images on the irregular surface of the 50-meter-long ‘cosmic thread,’” says Marvel Vision Owner Dacheng Xu. “Adding to the challenge was another extra requirement: This irregular surface needed to have a constant, wavelike motion. Using the powerful features of Christie Pandoras Box, coupled with our years of experience and knowledge operating these systems, we were able to overcome these challenges and deliver a highly satisfactory AV installation that all of us are proud of.”

As he recounts Marvel Vision’s resolution of their “Odyssey” odyssey, Xu attributes much of the credit to Christie technology. “The GS and HS Series projectors with laser illumination deliver excellent visuals, have a compact footprint, advanced electronics and connectivity, and a durable and dustproof design - making them ideal choices for installations such as theme parks, museums, exhibition halls, and theaters,” he says. “Meanwhile, Pandoras Box has an advanced system architecture design and unparalleled system configuration flexibility, capable of real-time video playback and processing, and other advanced technologies.”

A step forward for AV

In the world of museums, science centers have often been at the forefront when it comes to embracing AV innovation to tell their stories. The Shanghai Astronomy Museum continues the trend, putting AV at the heart of the action. Feature-rich, versatile projectors and powerful media playback and show control systems are the fundamental link between the SAM’s mind-expanding content and the visitors wanting to be amazed as they learn and explore.

“AV technologies help museums engage visitors in a profound and compelling manner,” says Qin. And as these technologies become ever more sophisticated, they provide new, immersive storytelling tools to media producers and designers to take exhibits to the next level. “We are now able to harness technology to reimagine exhibits, which can in turn generate interest and impart knowledge to visitors in new and exciting ways,” says Qin.

The Shanghai Astronomy Museum has helped engage the public by adopting technologies such as motion sensing, data visualization, augmented reality, virtual reality, and biometrics to create a multi-sensory experience of sight, sound and touch, Chen noted. “This has allowed the museum to build an immersive cosmic space environment, with interactive exhibits accounting for more than 50% of the total space, which combines education and recreation.”

A stellar venue

“The new Shanghai Astronomy Museum, which recently opened in China, is potentially the world’s most majestic museum devoted to the skies,” according to a review on ArchitecturalDigest.com.

Designed by the U.S. firm Ennead Architects, the SAM’s futuristic curved architecture and massive size go a long way to preparing visitors to be amazed. Its multilayered, curvilinear shape, without right angles or straight lines, have been likened to a deconstructed spaceship.

As the Thea Judging Committee described it, “From afar, its structure appears celestial and extraterrestrial, and one can only stand in awe of its otherness,” and “Each exhibit’s design fully capitalizes on the opportunities afforded by the museum’s architectural features.”

Innovative AV plays well in this futuristic setting. “SAM’s architectural space structure and exhibit structure design exude imagination and creativity,” says Xu. “In the face of these creative exhibit shapes and different exhibit functions, Christie’s projection systems and tools (Pandoras Box in particular) provide design teams, content creation teams, and exhibit production teams with the ability to transform their artistic blueprint into reality.”

Visitors like what they see and experience at the SAM and they’re talking about it online in forums such as WeChat and Weibo. “Many are amazed and highly impressed with these ‘high-tech’ exhibits, which increased their interest in science and provided them with a better understanding of the solar system and faraway galaxies,” says Xu. “The large number of social media posts is testament to their popularity.”

As Qin says, “The Shanghai Astronomy Museum marks a new milestone in the integration of science, nature and modern technology to provide an ‘out-of-the-world’ experience for astronomy fans and the general public.” •••

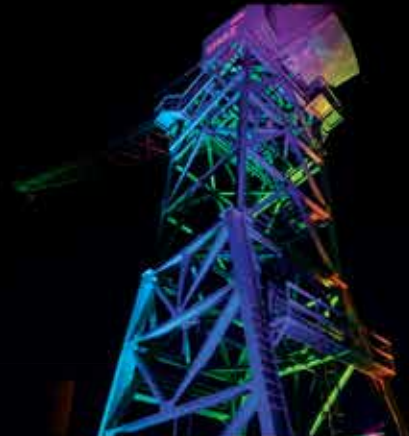



James Careless is an award-winning freelance writer who has covered the amusement parks and attractions industry for many years.



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All hands on deck aboard Star Wars:
Galactic Starcruiser!

Inside Disney's Star Wars: Galactic Starcruiser

article and photos by Martin Palicki

Editor's Note: Star Wars: Galactic Starcruiser is receiving a TEA Thea Award for Outstanding Achievement, Brand Experience. Publisher Martin Palicki wrote about the "first-of-its-kind vacation experience" in InPark Magazine #90. The complete version of this excerpt can be found in that issue, and at inparkmagazine.com/come-fly-with-me.

“It’s not a hotel,” Disney Executive Producer and Executive Creative Director Ann Morrow Johnson states firmly, referencing Star Wars: Galactic Starcruiser. “It’s a first-of-its-kind vacation experience.”

Drawing heavily on the concept of an oceanic cruise, Galactic Starcruiser is immersive theater writ large – a story set in the world of Star Wars that plays out over the course of two nights and a day-and-a-half of action. It’s hard to imagine any other experience that comes close to this level of detail, interactivity and length of time.

The Galactic Starcruiser brings together the best parts of cosplay, interactive gaming, escape rooms, advanced technology and special effects, all under the banner of the Disney-owned Star

Wars IP. In a way it’s like an intergalactic version of a Renaissance faire, where the lines between actor and audience are blurred, inasmuch as each audience member wants them to be.

Technically, Galactic Starcruiser also provides the essential services of a hotel: comfortable lodging, delicious food, luxury retail and entertainment – though they are so wrapped up in the themed and narrative elements of the experience, it’s understandable why calling it a hotel would be a great disservice.

Understanding the story

As the story goes, guests who are booking the Star Wars: Galactic Starcruiser are actually booking a two-night stay aboard the Halcyon starcruiser, a luxury vessel providing a relaxing cruise around the galaxy.

On the afternoon of day one, guests arrive to the entry terminal, a concrete entrance both futuristic and Brutalist in form. Guests proceed down a long hallway to a launch pod that takes them directly up to the Halcyon spaceship. The pod doors open to the ship’s main atrium, a two-story space that serves as a central gathering place during the trip.



The atrium of the Halcyon Starcruiser



Comfortable accommodations across the galaxy

Once all guests are safely aboard the Halcyon, the first of several group events occurs. The ship's captain and cruise director appear, advising that the ship has been boarded by the First Order, and the pleasant cruise around the galaxy suddenly becomes more complicated. The First Order is certain there are Resistance sympathizers on board and the rest of the cruise becomes the essential Star Wars trope of good (Resistance) versus evil (First Order).

Tech tools

Galactic Starcruiser employs two main technologies that help bring guests into the story onboard the Halcyon. D3-O9 is a digital assistant droid that appears on a small screen in each private cabin. She responds to voice commands and prompts.

The other tool is the Star Wars: Datapad, part of the Play Disney Parks app available on each guest's smart device. The Datapad relays information about happenings on the ship, often covert operations that each guest can choose to participate in (or not).

The two digital elements are highly integrated with the other components of the experience, such that if a guest has a private conversation with the Captain, for example, shortly after that chat they may receive a message on their Datapad from the Captain inviting them to meet up with her later on, say in the ship's cargo bay, for a covert mission. Similarly, D3-O9 can play an informative role and reveal further elements of the story.

Gaming elements

In crafting Galactic Starcruiser, one of Disney's main goals was to create an experience that blends fully immersive storytelling with gaming elements. The two scheduled training experiences every guest is invited to – bridge training and lightsaber training – both utilize simple games to move the story forward.

Aside from those two scheduled training experiences, guests who engage with the story have the opportunity to take part in a variety of other experiences that serve both to advance the storyline but also provide additional gaming experiences.

A talented cast

None of this would be nearly as engaging if it weren't for the very talented cast and crew of the Halcyon. Disney famously refers to all its employees as cast members, playing a role on the stage of the parks and resorts. But this truly takes the role of cast member to another level. The "front line" cast members who provide essential services onboard the ship such as cleaning, serving, concierge, and so on, perform all these services with the panache and courtesy they would were they stationed at the Contemporary or Polynesian resorts. But they do it all in the additional service of the Halcyon's evolving narrative. They support the storyline as well as the primary characters on the cruise.

Those main actors are remarkable. In addition to playing out all the scripted elements, they must remember guests, ad lib with them and transition between different scenes with ease. While immersive theater actors elsewhere perform for several hours over the course of an evening, Halcyon crewmembers keep it going for nearly 48 hours. It's no small feat and it's truly the entire crew of the Halcyon that makes the experience special.

Placing Halcyon in context

From an industry perspective, Star Wars: Galactic Starcruiser is a natural evolution of immersive themed experiences. In recent years, Universal and Disney have both excelled in developing themed lands that more fully incorporate a single IP into all aspects of the land. The Wizarding World of Harry Potter and Pandora – The World of Avatar led the way in creating story-driven experiences that are reflected in everything from food and merchandise to bathrooms.

Star Wars: Galaxy's Edge moved the needle even further, incorporating guest's handheld devices into the experience, providing different layers of interactivity for guests to uncover. Galactic Starcruiser builds on that and expands that interactivity to an impressive magnitude, taking what might have been a half-day experience and turning it into a fully enveloping world that, with only a moderate suspension of disbelief, can truly captivate and engage a guest for nearly two full days.

With Star Wars: Galactic Starcruiser, Disney has invested heavily in a hybrid built-and-digital environment, ostensibly nudging the themed entertainment trajectory more firmly away from virtual worlds and into ones inhabited by real people, with in-person gaming and face-to-face interactions. It's a bold move that hopefully will lead to broader, immersive (and intergalactic) new horizons. •••

Shaking things up

The Lisbon Earthquake Center's Quake exhibit earns a Thea Award

by Gene Jeffers

There never was a finer morning seen than the 1st of November; the sun shone out in its full luster; the whole face of the sky was perfectly serene and clear; and not the least signal of warning of that approaching event, which has made this flourishing, and opulent, and populous city, a scene of the utmost horror and desolation...

So wrote Rev. Charles Davy, one of the survivors of the Great Lisbon Earthquake of 1755, an event which killed thousands, ruined the city of Lisbon and contributed to the downfall of the Portuguese Empire.

Jora Vision, a leading design and production company, was contracted by Ricardo Clemente and Maria João Marques, founders of the Lisbon Earthquake Center, to create Quake, a museum environment that would put visitors inside that massive event. "We love unique and meaningful stories and were excited to harness our design and production skills to bring this story to life," Jan Maarten de Raad, Jora Vision CEO says. "We were confident we could find the right team to deliver Quake as a great experience."

Upon arrival at the Center, visitors are ushered into a reception room and welcomed. Suddenly a hidden door opens and leads the group to an abandoned laboratory. There, a recording by "Professor Luis" pleads for help in researching the Great Lisbon Earthquake and asks for volunteers to join a team that will travel back in time to retrieve important missing documents. After several stages of training on seismology and the history of earthquakes, the visitors step into a time machine and, within a few moments, emerge to find themselves strolling the streets of a peaceful Lisbon early in the morning of November 1, 1755.

It is All Saints Day. Many Catholics are gathered in churches to attend early Mass. Those who were planning to attend services later in the day were busy preparing meals, lighting candles in their homes, or perhaps cleaning the gravesites of their ancestors.

After exploring the quiet streets of Lisbon and learning about the lives of its inhabitants, church bells call the intrepid time travelers to a nearby Church. Seated in pews, they watch as the priest conducts the sacred rite. All seems normal. But then, at 9:40 a.m., as Rev. Davy noted:

...in a moment I was roused... being instantly stunned with a most horrid crash, as if every edifice in the city had tumbled down at once. The house I was in shook with such violence, that the upper stories immediately fell; and though my apartment (which was the first floor) did not then share the same fate, yet everything was thrown out of its place... the walls continued rocking to and fro in the frightful manner, opening in several places; large stones falling down on every side...

The scene inside the Church becomes equally chaotic. Pews shake and rattle. Great stones can be seen tumbling from above. Flames ignite and then rage. Voices cry out for mercy and shriek in pain. Everything is moving and crashing as the time travelers are rushed outside to escape the collapsing structure. Per Rev. Davy:

All whom their mutual dangers had here assembled in a place of safety were on their knees at prayers, with the terrors of death in their countenances, every one striking his breast and crying out incessantly, Miserecordia meu Dios!... In the midst of our devotions the second great shock came on, little less violent than the first, and completed the ruin of those buildings which had been already much shattered.

The time travelers watch from the street as aftershocks, tsunamis, fire and looting assault the city. They hear the words of other survivors: A German merchant who wrote that "No words can express the horror. Dust and smoke from the fires surrounded me, and I could barely breathe. Darkness was around me, and I found myself surrounded by a city falling into ruin, with crowds of people screaming and calling out for mercy. This city



Soon after entry into Quake, guests are led through a hidden door to an abandoned laboratory. There they are asked to help research the Great Lisbon Earthquake. *All photos courtesy Jora Vision*

will never be able to recover!” A Jesuit priest, his faith shaken, who recounted “With the mercy of God, I survived the shakes. What had started as a beautiful day became a scene from Hell. Roof tiles were blown away like feathers, and dust covered the sunlight... survivors almost entirely smothered in grime... mothers carrying dead children, and on every corner, mutilated, unrecognizable corpses. It was as if Judgement Day had finally arrived.”

The team is witness to the destruction that killed tens of thousands of people and forever altered the history of Portugal. They know they must complete their mission and recover the missing documents for Professor Luis.

While Jora Vision was responsible for the full design development and turnkey production realization of the 90-minute tour that explores the Lisbon earthquake, and seismology as a modern science, right from the beginning they partnered with specialists Painting With Light (PWL), Mr.

Called to Mass in a church, the time travelers experience the earthquake through motion seats, AV effects and more.

Beam, and Kraftwerk Living Technologies (KLT). “The project needed to be educationally relevant, historically and scientifically accurate, as well as respectful,” says Marco Ruzza, Jora Vision Creative Director. “But we wanted to offer visitors more than the traditional museum execution, so creating a story-driven journey built around actual events was crucial. The presentation needed to engage visitors with a beginning, middle, and end.”

Quake is a carefully choreographed sequence of activities and events designed to transport visitors emotionally to that one fateful day. “Visitors interact with nine timed and show-controlled scenes, immersed in a story-driven, educational spectacle,” says Robin van der Want, Project Development Director at Jora Vision. “The journey takes place across 1,800 square meters (19,000 square feet) in a new building in the Belém area of Lisbon - exactly where buildings were destroyed and people died more than two centuries ago.”

A unique tourist experience, Quake takes visitors beyond the facts and figures found in more traditional formats and into a custom-designed storyline that combines and connects history, science and culture. Modern show techniques blend with a detailed physical environment for a one-of-a-kind adventure. “Light, video and sound are powerful tools when creating an immersive experience,” says Painting With Light CEO Luc Peumans. “On this project, we used these tools to convert visitors into witnesses walking the streets of Lisbon, feeling the shocks, seeing the destruction. This cannot be accomplished with static texts and explanations.”

By creating a story within a story, visitors are engaged right from the start. “That is why my favorite part is at the very beginning, the welcome, the hidden door, the invitation for the visitors to become players,” says Ruzza. “It proposes and sets up the entire experience. You cannot avoid becoming part of the story.”





The training center is filled with interactives and information for guests of all ages to help better understand earthquakes.

Historical and scientific accuracy were important to the entire design and build of the project. Seismologists and historians provided input throughout the realization. Even the motion-controlled church pews by KLT replicate the 1755 style in the effort to create a sense of authenticity.

“This project was very challenging,” says Céline Cuypers, Manager of PWL’s Projects Division. “We had to create nine very different rooms, work with many different parties, keep to a tight budget all while creating 360-degree projections around surprise AC system intrusions and other challenges. The team solved many problems, but in the end it all came together to create amazing spaces and an incredible experience.”

One of Cuypers’ favorite rooms is the Church, where the motion-based pews combine with floor to ceiling wraparound projections, Mr. Beam AV scenic productions, sound and lighting effects to create the sensations of being inside a building when the earthquake struck. “Working with our partners, we are all very complementary,” she says. “Jora Vision knows how to explain stories to people; we are very good with lighting and AV effects. The other specialties add essential dimensions. We all worked well together to integrate the equipment in each room and yet keep it invisible.”

The sentiment is echoed by Ruzza. “We looked for the right partners when competing for the project. PWL was at the top of the list.” He notes the advantages of having the advice and direction of specialists from the initial concept development right through completion. “When it comes to specific elements of a project, your own experience is often not enough, especially in the detailed design phase. Choosing the best solutions, finding the best technical products, PWL and our other partners’ involvement was essential.”

Involving partner contractors from the very outset provided benefits for the entire creative and production process. “We really enjoyed this project,” Peumans says. “The result is a spectacular experience that combines the most innovative technologies in a beautifully themed environment. This only happens when



The time travelers emerge to find themselves walking the streets of Lisbon as they were just prior to the Great Earthquake.

everyone is working together as a team throughout an entire project.”

In large part thanks to that cohesive team effort, Quake visitors learn, undergo training, become time travelers, and experience one of the world’s most destructive earthquakes. They seek out knowledge in an effort to better understand earthquakes and how to prepare for and respond to them when they strike. All those years ago, Rev. Davy understood too late the need for that preparation, closing his essay on the Great Earthquake:

I assure you that this extensive and opulent city is now nothing but a vast heap of ruins; that the rich and the poor are at present upon a level; some thousands of families which but the day before had been easy in their circumstances, being now scattered about in the fields, wanting every conveniency of life, and finding none able to relieve them.

Bringing all the elements together to create a must-see museum experience does not happen by accident. It requires great care and coordination. In honoring Quake at the Lisbon Earthquake Center with a Thea Award for Outstanding Achievement: Historical Experience Limited Budget, the Themed Entertainment Association Thea Awards Judging Committee noted, in its official remarks, that “Quake strikes an excellent balance between education and entertainment, active and passive participation, and ride, show, and exhibit scenes. It achieves this balance while seamlessly weaving historical, scientific, and cultural facts into an outstanding, story-driven, and unique visitor experience.” So much easier said than done.

For more information:

Quake: lisbonquake.com

Jora Vision: joravision.com

Painting With Light: PWL.be

Kraftwerk Living Technologies: www.Kraftwerk.at

Mr. Beam: www.mrbeam.com

Rev. Charles Davy’s account: <https://archive.org/details/worldsstoryhisto05tapp/page/618/mode/1up?view=theater>

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Around the world

TEA Service awardee Kevin Murphy of Kraftwerk Living Technologies puts his heart into it, every time

interview by Judith Rubin and Martin Palicki

Kevin Murphy's distinguished career has kept him on the forefront of themed entertainment technology for decades. A familiar and friendly face at industry events around the world, Kevin has brought his business development skills to a short but powerful list of companies, including his current employer Kraftwerk Living Technologies. Kevin also has been an unabashed booster for the industry, championing organizations like TEA to the far reaches of the globe. He was particularly instrumental in developing TEA's European presence and has been a steadfast volunteer for TEA practically since its founding. Those are some of the reasons he is receiving the TEA Peter Chernack Award for Distinguished Service and will be honored at the Thea Awards Gala this April at the Disneyland Resort.

You started out working in museums. Why did you move to the vendor side of the business?

I was a bit of a rebel in my time and whilst I had a fascination in mathematics and physics, I was never going to be an academic. At the ripe old age of 17 I found myself in a civil service job developing Nuffield physics and electronics experiments for Her Majesty's School inspectors, in an old laboratory on the site of a WWII radio station – Ivy Farm.

Within a year I was traveling the U.K. teaching basic electronics in residential courses. After five years I applied for a job at the London Natural History Museum, which led to working with curators, scientists and exhibition designers in helping develop the Museum's technical systems. To say it was ground-breaking and immense fun is an understatement, but we were leading the industry in the '70s and early '80s. I still love that place and the people I worked with, and the secrets in the basements!

I was ambitious and my next opportunity came via the late Robert Simpson, one of the founders of Electrosonic, and a great innovative leader in AV for our industry. I had gotten to know him and the company from his sales visits to the Museum. I joined in 1987 as a product manager, which really was a posh term for a salesman in those days. That started a whole new chapter in my life, armed with a company car, briefcase and a few suits.

How did you get involved in themed entertainment?

My new role at Electrosonic took me to museums, retail, science centers, brand and theme parks and I liked it! My first "theme park" project was actually Granada Studios Tour in Manchester, and an experience based around Coronation Street, a popular "soap" TV series. I was also exposed to the Sanrio Puroland project in my first years, and my first trip to Los Angeles was to help with animatronic programming at an offshoot company called Roboshop. I remember that trip so well, and colleagues toured me around L.A. and the sights.

Working at Gardaland in Italy on the pirate-themed I Corsari ride, which opened in 1992, introduced me to Intamin, Technifex, Creative Presentations and more with a team creatively led by Richard Crane and Chris Miles. That project opened up many friendships and exposure to the USA themed entertainment community, including a rather lovely chap named Monty Lunde.

What's the history of your involvement with TEA?

Monty often talked about forming an association to look after and protect the smaller companies in the industry and I was honored to be asked to be an inaugural member and sit in the first meetings. Later, Peter Ed and others began to build a European arm of TEA and I lent a hand.

In the early '90s and 2000s I was also heavily involved with TiLE – Technology in Leisure and Entertainment; I had the pleasure to chair the 2000 Conference in London. Soon after that last conference, I took a more active role on the European TEA Division board. I was on the Board for around nine years and President for seven of those years.

I see myself as a dedicated volunteer, a team player who believed in the organization. I really liked and respected the people in Europe and USA I had to interact with. In line with my working life, what I can do is be a catalyst - contribute, I hope, well-thought-out ideas, admit when I am wrong and make decisions. I have run large teams in my career and been "very senior" but

really, I just like being a right hand. However, I do enjoy planning and strategy and we did grow the Division to encompass the Middle East.

The first European SATE, at Disneyland Paris, was an exciting step. I have a soft spot for SATE Europe as the event is a really nice mix of attendees from North America and Europe with a hint of Middle East, usually in a setting that just makes them so much fun.

Tell us a little about the unique art of business development for this industry.

I have been lucky and none more so than in my current position at Kraftwerk Living Technologies (KLT). The team is full of some of the best creative engineers, and I can focus on sales, marketing and business development and I do not need to do technical design – as there are so many better than me that can do it!

In business development, there has to be a structure and a reason why you reach out in certain directions, building a network that can grow work for the future, plus allow changes in strategy.

Having personal experience from senior management to the shop floor, in many industries and in many countries, I can walk into a “cold” meeting and usually find something to interest the skeptical or talk about. Building relationships takes listening and then trying to talk about the right things, doing things right and gaining trust.

What do you love about this industry?

I like working on projects that are around for a good amount of time, and I like to see the projects succeed. I have always tended to work on fixed installations and I am passionate about doing something that millions of people will see and hopefully enjoy – so I suppose I like making an impact and our industry certainly does that. Our industry respects age, too, with big roles for the younger players and even for the old ones like me – I changed my career at 60 and KLT welcomed me in and I found a company that cares as much as I do about doing the “right thing.”

I also like helping operators of any kind and in any place expand their horizons and improve their guest experiences with technology and immersive approaches. Many museums and cultural institutions still do not address entertainment as a competitor for time. However, entertainment is needed to educate, plain and simple.

Overall, I think the themed entertainment sector will continue to flourish and grow. This industry provides unending opportunities for innovation and discovery, and to help clients address what their visitors really want.



Kevin Murphy

“ I think the themed entertainment sector will continue to flourish and grow. This industry provides unending opportunities for innovation and discovery, and to help clients address what their visitors really want.”

- Kevin Murphy, Senior Vice President Sales and Business Development, Kraftwerk Living Technologies



Kevin peels an orange for a photo used in an exhibition at the London Natural History Museum. All photos courtesy of Kevin Murphy



Kevin and wife Maggie in San Francisco, California.



Kevin heads to work during his first week as a product manager for Electrosonic in 1987.

You've seen a lot of the world. How has that informed your perspective on life?

Travel has taught me so much but above all, respect for the different people and cultures you meet and the need to listen and learn and to stop always putting my view forward – which I am at times guilty of when I get excited. Vancouver Island, Japan, Los Angeles and Austria are among my favorite places to visit. I will jump on a plane with little excuse for any of those places.

In terms of business travel, networking and learning from others are priceless and essential and keep you from becoming isolated or narrow in outlook. A word of advice to my colleagues – when traveling to a trade show, always check to see if there is a TEA-organized gathering there. These are some of the finest networking and professional development events.

What advice can you give others looking to get more involved in supporting TEA?

Meeting and working with other TEA members grows knowledge and experience, raises new opportunities, and also helps understand your clients and competition. You get back what you put in.

Being a Board director is fine, but everyone can support our association by volunteering from just helping out at events to helping with recruitment and membership. There are any number of small jobs that need doing to help the organization grow and

succeed, and this is where any member young or old should start. TEA is doing a great job bringing together cultural and entertainment along with brand and retail. One of the most rewarding features of the TEA is the openness and friendliness of its events.

TEA has to be a global association to grow and survive, and it will, by paying attention and adapting. Members and leaders must realize and understand the whole market and not just the part they are exposed to. Understand that there is a difference – and listen.

What's a little-known fact about Kevin Murphy?

The “Murphy Bus” – Maastricht in the mid '90s and the TILE conference and what happened after midnight following a wonderful conference dinner in a Chateau. I may have been a little more up for partying in my younger days and for those that experienced it, that bus and its trips were probably fairly memorable. Luckily, there were no mobile phones and cameras in those days, so the legend just lives on.

Your dream vacation or cruise?

The rainforest and the sea – doing it this year with a trip to the Amazon and the Galapagos. I adore nature and everything it offers and never happier than when surrounded by plants and animals with my really lovely wife Maggie. •••

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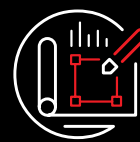
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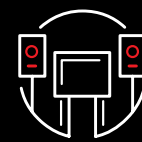
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Bringing formal education to a DIY industry

TEA Service Awardee Professor Peter Weishar of UCF

interview by Judith Rubin and Martin Palicki

Peter Weishar is one of the pioneers of college-level programs helping prepare students to build careers in themed entertainment, creating a pool for recruitment and helping industry leaders give back from their experience and knowledge. His dedicated efforts often support TEA's student member programs and enrich TEA conferences, and in general help create a productive dialogue and partnership between industry and academia. He has been named to receive the TEA Peter Chernack Award for Distinguished Service and will be honored at the Thea Awards Gala this April at the Disneyland Resort.

How did you get involved in themed entertainment?

I've been drawn to the arts for as long as I can remember. My father was a scenic/display designer and my mother has an Art History Masters and was a Department Chair at Parsons School of Design. I would draw for hours after school, and on weekends spend time at my dad's display shop watching them build wonderful things. I was actually over 30 the first time I spent a significant amount of time in a theme park. I felt like I was a kid again wandering through an amazing and detailed designed world. I guess I immediately saw theme parks as a huge interactive stage set.

What do you love about this industry?

The people. There is incredible talent and genius that goes into creating narrative environments. Each person brings their own perspective and skills to a project. I love hearing their stories and learning about the unique work they do.

Tell us about your relationship with TEA.

I owe the TEA a tremendous amount. I've made good friends there and learned so much about the industry from meetings, conferences and just talking to fellow members. I honestly don't think I could have accomplished what I did without the TEA.

When I was Dean of Entertainment Arts at SCAD [Savannah College of Art & Design], working on a curriculum for a masters program in themed entertainment, I met and hired an influential, former Disney Imagineer, the late George Head, as a professor. He said I should join the TEA. I owe this and a great deal more to George. His mentorship and guidance helped shape the program, and he was an amazing professor. We attended a TEA SATE conference in Orlando where Phil Hetteema and his team talked about their work for the WWII Museum in New Orleans. It brought home to me all over again how powerful and impactful themed experience could be.

That adventure led to my arranging to host SATE at SCAD in 2013 – the first SATE in an academic setting. The following year, I had taken a Dean's position at FSU, and we hosted SATE at the FSU campus in Sarasota, Florida. Now that I'm at UCF, I'm ready to talk to TEA anytime about bringing SATE to the UCF campus here in Orlando.

A great many of my former students from SCAD were part of the first wave of TEA student members. I think it is wonderful that the TEA recognizes the importance of young people entering the field. I'm currently the TEA@UCF Advisor.



Peter Weishar

“ We are doing our best to make Themed Experience a robust and active academic discipline.”

- Peter Weishar, Professor of Themed Experience; Program Director, Themed Experience MS Degree and MFA track, University of Central Florida

This is an industry initially developed by people learning as they went along, (often building on education/experience in art, engineering, theater or film). Why is it important to have formal academic training now?

Look at the film industry. There was a time when only a fraction of film industry professionals had attended film school. Now, most successful directors and producers studied film in college. Film schools transformed that industry and led to some incredible advances in the art form. The same thing is happening in themed experience and attractions.

Graduates from themed experience and design programs have a significant advantage over students from other programs. They enter the field with focus, knowledge of the industry and pertinent skills. They understand the history and context of the business they're entering. They have put in the time and effort to create original and focused work.

We are doing our best to make Themed Experience a robust and active academic discipline. At UCF, we have an outstanding Advisory Council of industry leaders who did their learning on the job. Their knowledge has informed how we create curriculum now, blending formal education with industry experience. Also, some eight years ago several colleagues and I founded the Themed Experience and Attractions Academic Society (TEAAS) with the goal of helping other institutions and academics develop programs in this field. Themed Entertainment is too large and important a field to be supported by just one or two institutions.

For me, the big reward is seeing a talented student grow and start on the journey to achieve their dream.

How can industry associations and their members most effectively support academic programs?

Interesting question. Most people in industry see educational outreach as just internships and hiring. That is actually the end product of an education. The more organizations can get involved in the learning process, the more effective they can be in assuring the future of our industry.

The first thing I tell everyone interested in entering the industry is “join the TEA.” There are obvious advantages to attending Summit and SATE, but even just showing up to a mixer and meeting industry professionals in a casual setting can be invaluable.

I honestly don't know of any educational degree program that teaches everything a graduate needs to know. There will always be the years in industry that are essentially a continuation of one's education. But an individual who spends the considerable time and effort obtaining a graduate degree in Themed Experience has shown commitment to this industry. That leads to higher retention for employers and an accelerated learning curve.

What have your students taught you over the years?

There are dozens of examples of direct learning where students find a niche area of interest and introduce me to a new designer, author or discover a little-known and fascinating fact. More importantly, each student is unique - they bring their own life experience and viewpoint into the classroom. Students have shown me how they make creative work to understand loss, adversity and even joy in their lives. I marvel at some students' courage and creativity. It is inspiring.

Can themed experience education programs benefit working professionals in mid-career?

We have had a number of students in their late 30s and 40s. The most successful of them have confidence in their talent and ability, but realize there is always more to learn. Older students can also be a great influence on their colleagues in and out of class. I can say the majority of returning students to our program have made successful career transitions.

What's your number one piece of advice for graduates entering the field?

Don't be afraid to be yourself and show your own vision. Some students feel they should show work that looks like projects that are already done. A great art director looking for new talent will appreciate a unique vision and creative approach to the field.

What's your approach to integrating mentorship and field experience into curricula?

The MFA program allows up to 11 credits of internship. That means a student could work in industry for a full year as part of their degree requirement. Our shorter MS program allows up to six credits. Here at UCF, we benefit from being in the hub of the themed entertainment industry. Speakers from industry, portfolio reviews, critiques and site visits are part of every semester at UCF, and people are open and generous with their time and expertise.

I can think of dozens of examples. A few highlights were working with Zsolt Hormay and Colleen Meyers from WDI on a character plaster class, Cecil Magguri co-teaching a VR class in the Falcon's Creative X-lab, the UCF Universal Creative Lab class that is going on this semester, the UCF Christie Digital Projection Mapping Lab, and the UCF/Meow Wolf Writers Workshop. Many years ago, these themed entertainment/

academic collaborations got their start when Patrick Brennan, VP Walt Disney Imagineering, approved and supported an off-campus Walt Disney Imagineering class. (By the way, Patrick retired from WDI and is now a full-time Themed Experience professor at UCF.)

What parks/projects/experiences have inspired you during your career?

I am an unabashed Disney fan. One of my favorite experiences is dusk at Pandora and seeing the simulated bioluminescence start to glow in a beautifully designed environment. Another is Meow Wolf's House of Eternal Return. I see this kind of work as the future that can reach an entirely new audience. Going back to younger days in NYC, I particularly loved the Whitney Museum and the Metropolitan Museum of Art.

What do you do to continue your own lifelong learning goals?

I read everything I can get my hands on about the field, but I think most professors do that. For me, I try to embrace new ideas and new technology and incorporate that into what we already know and do. For example, I've become fascinated with AI and real-time high-resolution rendering. We are getting very close to the holodeck and I, as both geek and artist, am really excited about that.

What achievements are you most proud of?

I'm most proud of and excited about what I'm doing right now. Helping to create a robust Themed Experience graduate program here at UCF has been an incredible journey. UCF has shared the vision and provided the support necessary to make this such a success. Just like creating a themed attraction, it is a group effort and I'm grateful for the people at UCF making it happen. •••

InPark would like to thank the Themed Entertainment Association staff and volunteers for organizing and hosting the 29th Annual TEA Thea Awards.

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Imagination Playground's signature Blue Blocks easily transform any empty space into an instant playground. All photos courtesy of Imagination Playground

Imagination Playground shapes new custom places to play

Imagination Playground's Blue Blocks create endless possibilities

by Wendy M. Grant

Imagination Playground's signature Blue Blocks easily transform any empty space into an instant playground. And when the blocks are placed in a space that is anchored by walls made from the same material, the fun is amplified.

The Blue Blocks were conceived by architect David Rockwell. Lightweight, durable, portable, easy to clean and infinitely customizable, the foam blocks, in various shapes and sizes, inspire children to build anything they can imagine. Blue Blocks were an instant hit when first introduced in Burling Slip, a park in New York designed by Rockwell.

The versatile blocks can be used indoors or outdoors, on floors of all types, on splash pads, on grass or wood chips – or with a custom wall of the same material, which enhances the appeal and immersion of a Blue Blocks zone.

“Adding a block wall or a completely custom play space for the Blue Blocks takes everything to a whole new level,” says Jim Stallman, Owner of Imagination Playground. The space becomes a screen-free play zone that further encourages collaborative activity, physical movement, social development, and creativity.

Today, Imagination Playground products can now be found around the world at museums, attractions, schools, libraries, and hotels. Some recent installations of custom walls and Blue Block play spaces designed by Imagination Playground can be found at the Museum of the Southwest in Texas, The Scientific Center in Kuwait, the Golden History Center in Colorado, Maker Maxity in India, Yellow Submarine in Bahrain, and the Onondaga County Central Library in New York, among others.



Jim Stallman, Owner of Imagination Playground, shows off the company's signature Blue Blocks.



The blocks also can function as comfortable and flexible furniture.

Off-the-wall creativity

While most walls are limiting, a giant foam wall with strategic cutouts is literally built for fun. Chairs are for sitting, but an Imagination Playground chair can be a starting point for a spaceship. A foam table can become a knight's table inside a castle built of Blue Blocks. Logos and custom shapes can be sculpted from foam and incorporated seamlessly into a space where kids of all ages will play for hours.

Michelle Calderon, Imagination Playground's Director of Client Relations, described a recent project for Dig It, a construction-themed family entertainment center (FEC) that encourages kids to build the community around them through play. Dig It requested a 15' x 15' custom wall that incorporated their logo and their motto, "Play to Learn," as well as unique shapes, like a stop sign, dump truck, and hammer.

"Our engineer brought it to life," says Calderon. "When a client chooses to create a custom wall or space, it's not something you see everywhere," she adds. "It makes a space unique."

Custom walls not only serve as a fitting backdrop for Blue Block play, but kids actually can build off of the wall or into the wall. "The ability to build off the walls and the addition of matching foam tables and chairs really makes a space more inviting and engaging," Stallman shares. "I equate it to the decor and immersive atmosphere customers enjoy while waiting in a line for a ride. It sets the tone and pulls you into the story you are about to experience."

Blue Blocks can be placed anywhere, and kids will instantly gravitate to them and start playing. A circular piece and a noodle can become a guitar. Channels and chutes can be configured into a roller coaster for a ball.

"The blocks are high quality, and they are also unique, open-ended, and an engaging screen-free option for play that creates much needed balance for our children these days. The blocks help develop essential skills such as imagination, collaboration, and problem solving," says Liz Rossiter, director of Mud Kitchen, the distributor for Imagination Playground in Australia and New Zealand.

Building bigger, playing longer

Even more importantly, Stallman notes that the building, learning, and dwell time surrounding the Big Blue Blocks increases in scale and scope when they are immersed in a play space. He says, "We see kids in play spaces spend up to 30% more time and build creations that are 50% larger."

Sunčana Sinković, manager of Blue World Creative Children's Playroom in Croatia, says, "The reactions of both children and parents have been amazing. Kids don't want to leave our playroom even after three or more hours of play. It is not unusual for parents to join them in the playing area."

Kids naturally build higher when they're in a location with a wall made from the same foam as the Blue Blocks. "They can easily build a house or a fort, because they've already got a wall," Calderon says. "Or they can create a fun course for a ball to run down from as high as they can reach on the wall." Generally, custom walls are five feet tall because that's the maximum reach for most children, though Imagination Playground is happy to build higher walls upon request.

A custom wall can even be portable, shares Calderon. "If it is assembled onto a subframe that is then drilled into a feature wall, the wall can be moved to another location if needed," she explains. The wall can shape the space for a temporary exhibit or a space-filler. Just add loose Blue Blocks to create an instant play space.

While pricing is depending on the project, Calderon says that custom walls are cost-effective. "We are able to work closely with the customers to design a play space specific to their needs, budget, and project timeline, with custom and exciting shapes," Stallman adds.

He notes, "We can take a concept and bring it from prototype to design to delivery very quickly." The turnaround time to deliver a wall of standard shapes is six to eight weeks, while a custom project featuring logos, intellectual property, or unique shapes, is as little as eight to 10 weeks.



Imagination Playground's client, Dig It, requested a 15' x 15' custom wall that incorporated their logo and their motto, "Play to Learn," as well as unique shapes, like a stop sign, dump truck, and hammer.

Innovation takes shape quickly

Innovation is fueling that fast turnaround time. Stallman says, "The team is constantly developing new systems and custom foam-cutting processes that now allow us to design custom projects quicker and more efficiently."

Imagination Playground has made significant investments in its quality systems, manufacturing processes, and equipment. Stallman shares, "We have installed custom-built cutting equipment that triples our capacity and increases our cutting capabilities to allow for new and dynamic shapes. This new cutting technology will also enable more flexibility to fabricate custom shapes for walls and permanent installations for our customers."

Imagination Playground has also developed new block shapes, ready for purchase, including a transportation-themed set of blocks that is just entering the market.

Imagination Playground products are made from foam, but they are surprisingly durable. Calderon says, "Although you can blemish them and scratch the surface, they can last upwards of a decade if taken care of." Stallman noted that Blue Blocks at the original Burling Slip location even survived Hurricane Sandy.

A play space uniquely your own

The process for creating a custom wall or space is straightforward. Calderon says, "The customer provides the dimensions of the space, and information about what they want to include, such as a logo, colors, and other details regarding special shapes. Then our design engineer puts his mind to work to create a project for the client's approval."

Dominic Luoni is the creative mind who serves as Director of Product Development and Innovation. "There are endless opportunities each day to work with our team and customers to create amazing new products," he shares. "It's awe-inspiring to see what people can imagine. The challenge of bringing those ideas to life is the best part." Luoni encourages customers who are interested in a custom design to let their imagination flow.

When designing, he considers the utilization of the space, product life, and, most importantly, safety. "Nothing trumps safety," Luoni emphasizes.

In addition to blocks, noodles, and geometric shapes of all sorts, Imagination Playground also offers Loose Part Bones, which empowers children to design an alien, insect, or dinosaur up to four feet long and six feet high. When asked what he'd like to design for a theme park, attraction, or museum, Luoni says, "I imagine a dinosaur area with matching walls and furniture that has multiple interaction points." He envisions a build-your-own-dinosaur area where kids define their dino's diet, hunting habits, and characteristics.

"I love to design a hands-on exhibit and play area that can teach at the same time it entertains and thrills," he says. "Bringing families together through fun and play that stimulates learning is always the objective."

See the Blue Blocks at your next trade event

In 2023, the Blue Blocks and the Imagination Playground team are returning to trade events such as the Association of Children's Museum's InterActivity marketplace in New Orleans in April, where Imagination Playground is the standing sponsor of the Emerging Museums segment. Imagination Playground will also be at the Tri-State CAMP Conference in New Jersey for the first time this March, as well as additional shows later in the year. Whenever it participates in a conference or expo, Imagination Playground brings blocks along, and adults enjoy building with them just as much as kids do. Stallman says, "We are excited to meet and build with you this year!"

Imagination Playground is headquartered in the U.S. and produces all products in America. Stallman notes, "Each Imagination Playground Blue Block is handcrafted in the USA by many of the same team members that hand-cut the very first set of blocks." International distributors are located in the U.K., Australia/New Zealand, Korea, and Japan. For more information about Blue Blocks, custom walls and play spaces, and all things Imagination Playground, visit <https://imaginationplayground.com/in-park-magazine/> •••



Wendy M. Grant has worked in marketing for more than 25 years. She served as Director of Marketing and Communications for San Diego's Fleet Science Center, home to the world's first IMAX Dome Theater, where she directed marketing for all exhibitions, films, shows and events for 13 years. She served on the Marketing Committee for the Giant Screen Cinema Association and she was a board member for the Giant Dome Theater Consortium. Prior to working in the museum field, she was Director of Marketing at Marine Corps Air Station Miramar where she helped to produce the annual Miramar Air Show. Since 2019, Grant has worked as a communications consultant, writer and editor, with clients in the education and entertainment fields.



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Master of “Fungineering”

A look behind Jim Carstensen’s style of Fun+Engineering at Alcorn McBride

by Gabrielle Russon

For three decades, Jim Carstensen has been the mastermind running the engineering department at Alcorn McBride as the Orlando-based company builds the audio/video players and show controllers that so many theme parks have relied on for years. Behind Carstensen’s genius electrical engineering mind is not the personality you might expect from someone in such an analytical, technical field. His colleagues say Carstensen is a notorious prankster and comedian. “He’s always been that way. He’s got a playful personality. He’s a brilliant engineer,” said Mike Polder, who handles tech support.

The memorable Carstensen plays a leading role for Alcorn McBride and its success. Company CEO Steve Alcorn called Carstensen “the technologist of the company.” Loren Barrows, the company’s chief operating officer, added, “His character is woven into the fabric of our culture.”

As vice president of engineering at the company that employs 21 people, Carstensen has overseen the development of all Alcorn McBride’s products, including its flagship, the V16X show controller and the legendary Binloop line, with the BinloopX the newest version recently launched.

Reflecting over how the work has changed in 31 years, Carstensen said, “It’s all a lot more complicated now. It used to be that we could crank out six designs in a year back in the ‘90s. We’d make a couple of different audio players, maybe a video player and a lighting controller, boom, just like that. We can’t do that now because the technology is so advanced that it takes a lot longer, but we’re still able to do it in a relatively short amount of time.”

A big break at Disney

Growing up in the 1960s in the San Fernando Valley, young Carstensen found joy tinkering with electronics. He rigged the electronics for the backyard haunted houses he used to make with his buddies. The makeshift haunted houses were elaborate enough to have lighting special effects and other spooky gags tied to the control panel he built from scavenged industrial parts. Carstensen joked it was a miracle it didn’t catch on fire.

As a guy who loved visiting the theme parks, Carstensen dreamed of doing something related to parks for a living. In college, he studied engineering at California Polytechnic State University, San Luis Obispo when his big break came. His dad, once an Army



Martin Chaney, Jim Carstensen, and Steve Alcorn visiting their Theme Park roots.

radio operator motivating the troops in Italy during World War II, was working for a production company with offices in the Disneyland Hotel. His father befriended staffers of Card Walker, who was then Walt Disney Company President and CEO, and this helped his son land a six-month internship at Walt Disney Imagineering. It was an exciting time to be at Disney. One of the world’s biggest entertainment companies was building an ambitious new theme park, Epcot, and Carstensen was pulled in to draw schematics and wiring diagrams for the Journey Into Imagination attraction.

When the internship was over, Carstensen went back to school, but Disney needed all hands on deck to finish Epcot, which would open in October 1982. Carstensen, who hadn’t earned his college degree yet, was back to work for Disney; this time as an associate engineer pulling 18-hour days at the Imagination Pavilion. “There was no Red Bull back then, but we were very young,” Carstensen said.

That experience in Florida changed Carstensen’s life forever in two ways. First, he met his wife of 36 years, Kathy, at a disco in Lake Buena Vista. The couple now has two grown children with their first grandchild on the way. Carstensen also met Steve Alcorn working at Epcot. Steve Alcorn had been working on the American Adventure Pavilion and assisted Carstensen’s group in finishing the Imagination ride.

After Epcot, Carstensen returned to California and finished the last class he needed to graduate with his bachelor's degree. He joined the workforce, eventually landing a job at Lockheed Martin until his old friend Steve Alcorn invited him to work at his small start-up company. Carstensen took the job in 1992 and never left Alcorn McBride.

Encyclopedia of electricity

In the engineering world, there are plenty of great minds solving problems and innovating. Not everyone, though, is willing to take the time to be a teacher, which Carstensen's colleagues say sets him apart. It can be as simple as the warehouse worker who was curious to learn what electrical engineering is all about. Carstensen offered him a beginner's course in the conference room every week.

For others leading the charge at Alcorn McBride, Carstensen is the colleague they approach when they have a question or are stuck on a problem. "He is pretty much the encyclopedia of anything that has to do with electricity," said software engineer Adam Rosenberg. Carstensen can do circuits in his sleep, they say.

"The thing he likes about his job is working with all of the other employees to develop this level of technology," Steve Alcorn said. "So, most of the time, you'll find him at his workbench and peering through a microscope or fiddling around with the hardware. He has taken on the task of actually designing and laying out these complicated circuit boards because it's so integral to what we do now."

Carstensen knows about analog electronics, PCB layouts, schematic designs – all the aspects of electrical engineering, said Hunter Olson, Alcorn McBride's product development director. "He's definitely a brilliant engineer," Olson said. "It's remarkable the kind of stuff he can do."



Jim's "udderly" silly engineering humor

Olson sees Carstensen as a mentor and a visionary, when it comes to troubleshooting. "Everything I know about electronics I've learned from Jim," said Olson. "Part of his strength is the understanding from the very early stages when the product is just a drawing on a computer, what it needs to have, how it needs to be designed to do what it needs to do. There will be times a year into a project where I realize

something that I didn't consider. I go look at the schematic and see that, actually, Jim thought about this 12 months ago."

Outside of Alcorn McBride, Carstensen is teaching the next generation of electrical engineers. Since 2007, Carstensen has taught at nearby Valencia College and holds the status of associate engineering professor.



Jim with his usual sly "I'm not up to anything" grin.

Carstensen – who inherited his dad's radio voice – is genuine in his joy for engineering and for helping his students grow, said Paul Wilder, the college's dean of engineering, computer programming and technology. "What he brings is a real sense of care and mentorship for the students," Wilder said. "That's one of the things that I think makes him a great professor."

The jokester

Everybody has a story about Jim. That time he wrapped up the yellow phone book for the worst gift ever at the company holiday gift exchange. Or that time he saw a dead cockroach in the office and then staged his own miniature crime scene by making a little paper ambulance and tiny yellow tape to cordon off the bug corpse. He used an Alcorn McBride audio player to broadcast ambulance sounds.

To welcome Steve Alcorn back to the office from an absence, Carstensen used the company's own products to animate Alcorn's office so it looked like an amusement park. There was a teeter-totter moving, music playing and more. "The upside was that it was quite stunning and showed that I was missed," Alcorn said. "The downside was they left me to clean it all up."

A walk around Alcorn's Orlando-based headquarters reveals plenty of signs that Carstensen has left his mark. You can't miss the fake dog poo by his desk (hopefully no one blames it on the real office dog, Skeeter). "The little green army men everywhere, we suspect is Jim. For years, they've been showing up and moving from spot to spot," Alcorn said. "Nobody's ever caught him at it, but it seems like it must be a Jim thing."

That's part of the charm of Carstensen. It's a playfulness that fits perfectly into Alcorn McBride's culture and motto: "Have fun, make money."

For the younger employees, Carstensen models a deeper lesson about work-life balance. He goes on a walk every day at 3 p.m.

to get out of the office and chat in the Florida sunshine with his colleagues.

“Every quarterly meeting, I always ask him to share words of wisdom,” said Barrows. “He stands up and he tells a bad joke.” Then Carstensen turns serious and philosophical. “He reminds us to always put things in perspective,” Barrows said. “We get stressed out, but he’ll always tell us, ‘Stop and look around our building. How lucky we are to work in this industry, work with friends and do what we do?’”

Carstensen’s tools are versatile. In addition to his expertise with the technology, he has helped build years-long relationships with Alcorn McBride customers.

During the mid-1990s, Disneyland ran a Lion King parade with music and performers that was innovative for its time as the street music and float music synchronized using Alcorn’s classic Binloop player. Carstensen flew out to California and worked on the floats all night on Main Street, U.S.A. to help Disney fix some bugs when the parade launched. “He’s got a very laid-back personality that, even though it’s kind of high stress, he was just easy to deal with,” said David Froberg, who was a technician at the park at the time, recalling their early days working together.



Alcorn McBride celebrated Jim’s 30th Anniversary at one of his favorite spots, The Chef’s Table in Winter Garden.

Thirty-one years into the job, Carstensen, 64, says he doesn’t plan to retire soon. “If I wasn’t still having fun, I wouldn’t be here,” he said. “Every day is fun.” •••

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END-TO-END A/V SOLUTIONS





Journey of Lights Parade at Chimelong Ocean Kingdom in Zhuhai, China

From theme park to everywhere

How ETC equipment powers attractions and immersive experiences

by Joe Kleiman

Since its founding in 1975, ETC has been an innovative and leading presence in the live-event industry, known for its lighting fixtures, lighting equipment and lighting control systems. Over the decades, ETC has broadened its portfolio with strategic acquisitions in entertainment such as High End Systems [see “Spotlight on Innovation,” InPark Magazine issue 91] and industry-leading development of architectural controls.

Just as entertainment lighting designers and craftspeople often cross over to work and innovate in the themed entertainment space - and have done so for decades - ETC’s products and technology support the evolution of themed attractions and immersive storytelling in many areas, including and beyond the parks. As the guest experience becomes more sophisticated and immersive, and as themed experience has found its way over the years into new venues, settings and configurations, ETC and its partners are there. To serve the attractions market even better, in 2018 ETC developed an in-house team exclusively dedicated to themed entertainment environments.

The company currently has three different lighting control platforms that can be found operating in hundreds of theme parks and themed attractions around the world:

- The ETC Paradigm control system has the capacity for monitoring and control throughout an entire park or facility. An example is the 2010 expansion of the California Science Center in Los Angeles. Working with Gallegos Lighting, ETC provided a Paradigm system that controls lighting of the wing’s atrium and office spaces, along with exhibition lighting in a new area featuring live animals and effects-driven lighting, such as a simulated flash flood in the desert.
- ETC Eos lighting consoles are designed for precision color control and can be applied on a large scale, including parades. An example is the Journey of Lights Parade, which opened in 2016 at Chimelong Ocean Kingdom, Zhuhai, China, and was honored in 2018 with a TEA Thea Award. This 40-minute nighttime spectacular is a collaboration between Chimelong Group and Miziker

Entertainment that employs more than 1 million color-changing LED lights, tied via DMX to the control servers by 900 individual universes (a DMX universe consists of up to 512 channels tied together through a single connection). By adjusting the brightness of red, green, and blue (RGB) LEDs in conjunction with each other, over 16 million hues of light can be created. Ryan Miziker, CCO of Miziker Entertainment, remarked that the Eos's full RGB control "opened up the color choices in a mind-boggling way for every moment of the entire show cycle. We made the most of it."

- ETC Mosaic products can control animated pixel arrays and respond to triggers, allowing for interactive feedback. An example is the interactive show BOOM! which opened in 2019 at the Britannia Mine Museum in British Columbia, Canada, and was honored in 2022 with a TEA Thea Award. BOOM! uses Mosaic to control lighting and atmospheric effects synched to media. The attraction's lighting designer, Stefan Zubovic of Eos Lightmedia credits Mosaic's linear editing design to its successful synchronization to media and show control systems. The Thea Judging Committee stated: "The layering and world-class execution of the show action elements and scenic environments were emotionally evocative as well as technically impressive."

All these systems are optimized to work together so ETC's versatile technology can handle both the big, complicated jobs and the minutiae. And they are not restricted to their own ecosystems. Paradigm, Eos lighting consoles, and Mosaic controls can easily network with media servers and other show control components from Crestron, Green Hippo, 7thSense, and others over DMX, UDP, ISAAC, and more.

Even though ETC works closely on developing unique products for its theme park customers, its products are not proprietary to individual clients or industries. "We developed Paradigm to be a park-wide control system for a major international operator," says Scott O'Donnell, a theme park specialist at ETC. "They suggested that it be made available for public use. Designers and operators in other fields may have ideas about how to employ the software. We take the feedback and make the system better for the original client and everyone else. Problem solving for the whole world is much better than doing it just for a single client."

In addition to speaking with O'Donnell and Karl Haas, the Architectural National Sales Manager at ETC, we heard from two of the manufacturer's lighting designer clients, Available Light and EXP, about how ETC's products have been implemented in their projects.

Museum exhibitions

"I've never seen any other vendor offer such creative alternatives as ETC," says Ted Mather, who as Managing Principal of Available Light's New York office, concentrates primarily on museum exhibits. The relationship with ETC began in 1991. "The staff would spend hours with us and see how we worked and adapt the software to how we worked. They are extremely user driven."

One of Mather's favorites was an exhibit designed by Hoberman for Discovery World science center in Milwaukee, WI. A 30-foot helicoid shaped like DNA shrinks to human size. Users control the speed of the structure's metamorphosis through a rotating knob. "An ETC Mosaic server samples the speed of the knob to match the lighting with the expansion and contraction," Mather says. "This happens around 100 times per day."



The interactive show BOOM! at the Britannia Mine Museum received a TEA Thea Award in 2022. Photo courtesy Britannia Mine Museum



The TD Garden arena in Boston, MA uses ETC's ColorSource Spot LED fixtures to provide color and drama to the arena's sports and aisle lighting. *Photo courtesy Matt Teuten Photography*

Guests to the National Museum of African American Music in Nashville, TN, travel down a central corridor, called The Rivers of Rhythm, where a light and video show plays every 15 minutes. Mather selected ETC's Paradigm system to control lighting for the entire building, including track lighting and work lights. ETCnomad, which allows an interface between ETC's Eos lighting control system and the designer's laptop, was used to program the river experience. Mather was able to program with SMPTE code to ensure that the lighting could be integrated with video.

The Smithsonian's National Museum of African American History and Culture in Washington, D.C., a 2018 TEA Thea Award recipient, is controlled inside and out by an ETC Paradigm system and Mosaic show controller. With lighting design led by Tracy Klainer and Richard Chamblin of Luce Group, the 10,000 lighting fixtures and 750 fiber optic illuminators throughout the museum are sectioned into 33 universes run by the single control system.

Sports and competition

LED lighting has been one of the biggest game changers to the lighting world. ETC's Haas commented on how it brought new life to sports presentation, which for nearly a century depended on incandescent or metal-halide lighting, both heavy heat generators and in need of frequent maintenance. "Before LED," says Haas, "lighting was not part of the show in sports. You would turn on the lights at the beginning of the game and turn them off afterwards. Now, when there's a touchdown or home run, we can modulate and change the lighting directly on the field. Show controllers can take orders from the building control and make dynamic changes in real time. We have many of our Mosaic show controllers in major sporting venues, including the T-Mobile Arena in Las Vegas, Atlanta's SunTrust Park, Target Field in Minneapolis, and Madison Square Garden in New York City."

Competition extends beyond professional sports. Delta Strike, a New Zealand-based purveyor of laser tag equipment, offers a small version of ETC's Mosaic platform which controls lighting based on hits and scores. In escape rooms, participants compete against the clock. In a number of these venues, floor pads trigger ETC control systems, such as Mosaic and Eos, which then implement lighting cues and effects.

Hospitality

Aram Ebben is Principal and Director of Lighting Design and Michael Schrupp is Creative Director of Lighting Design at EXP, a professional services, architectural, engineering, design and consulting firm. Ebben and Schrupp have relied on ETC products in many projects over the years. "Karl and the rest of the ETC staff

are always available and ready to help us when we encounter challenges on our projects,” says Ebben.

EXP hospitality clients include Ryman Hospitality’s Ole Red chain of dining and music venues, co-founded by country and reality competition star Blake Shelton. A Las Vegas Strip flagship location is set to open at the Horseshoe (formerly known as Bally’s), and, like the existing locations in the Southeast, it will operate with ETC show controllers and provide end-user simplicity. As Ebben points out, “We need Ole Red’s systems to be understandable for the store managers and the operations staff to control.”

This correlates with a concept shared by Haas: “One of our major theme park partners came up with what they call the ‘burger-burger-fries’ approach. Under the hood, the technology can be as complicated as you want, but on the surface, it needs to be easy enough for the person who’s cooking the burgers and fries to operate.”

Aquariums

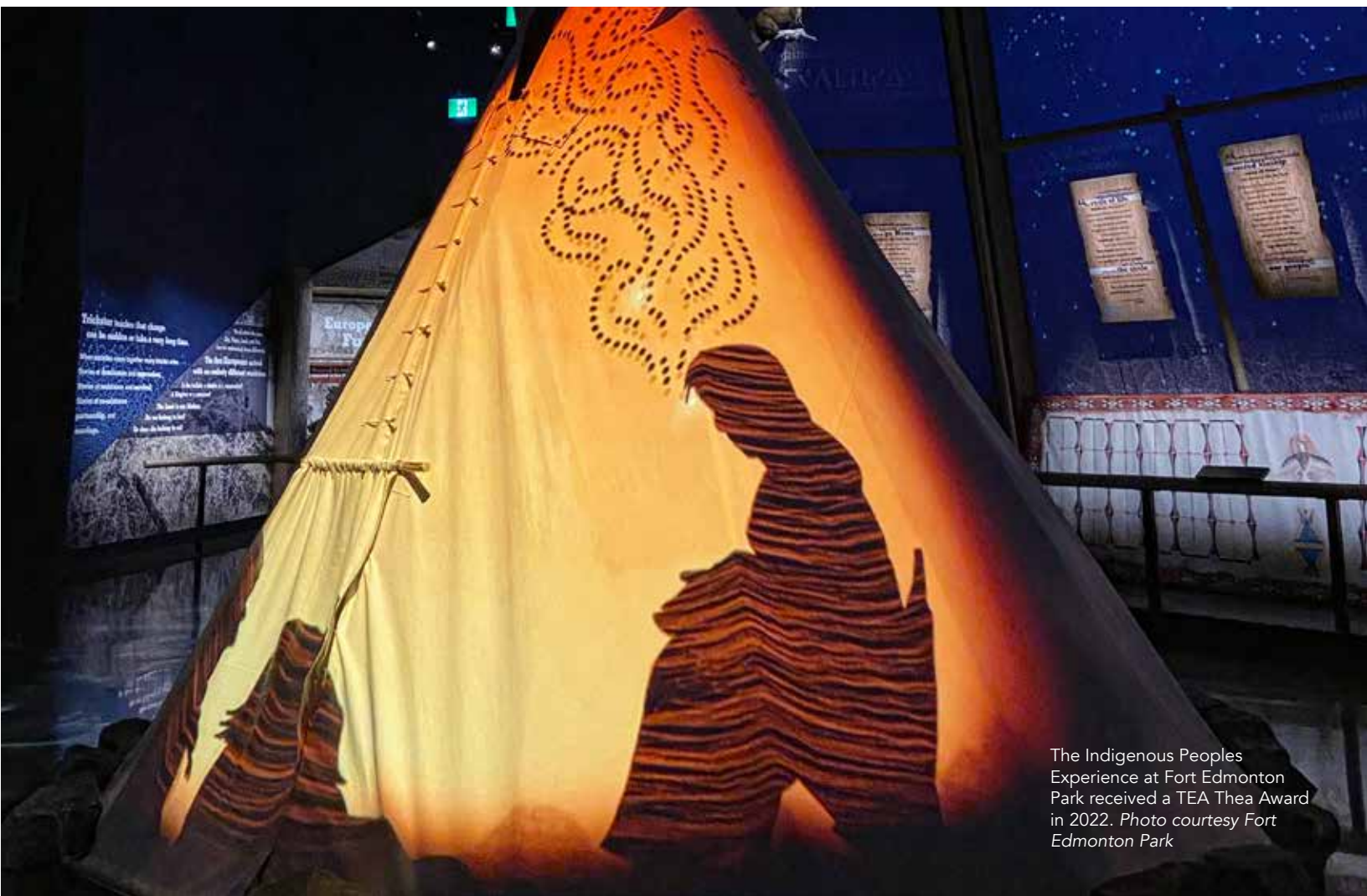
Aquarium at the Boardwalk in Branson, MO, is an entertainment-based aquarium, heavily dependent on lighting design. “The owners were very encouraging of color changing,” says EXP’s Schrupp. “They wanted to make the tanks look unique. There are several areas in the aquarium where there are programmed shows, where the lighting is choreographed to music. ETC’s Paradigm

processor is talking to the system running those shows. There’s also a large Mosaic system, controlling the lighting for the big iconic octopus on the outside of the building. It’s illuminated internally by fifty floodlights. The automated lighting systems also shift the time of day for the fish. There are various sequences of light levels, so the fish know when to sleep and when to be active.”

According to Ebben, “in addition to the lighting design on the aquarium, we were also onsite, directing the programming and working with the integrators and the electrical contractor to ensure that all parts and pieces of the system came together to create an award-winning experience. Our efforts garnered us two awards from the IES: an Award of Merit from the SoCal Section for Interior Lighting and an Award of Excellence from the SoCal Section for Lighting Controls.”

Culture

In Edmonton, Canada, Fort Edmonton Park recently opened the Indigenous Peoples Experience (IPE), a project where EXP provided lighting design and was a 2022 Thea Award recipient. “The significance of this project is two unique experiences in one space,” shares Schrupp. “The IPE explores the history, experiences and culture of the First Nations and Métis Peoples. The first half is one type of show with integrated video and projections on a teepee. Each part of this area is themed to one of the four seasons. We made sure that the light was to each



The Indigenous Peoples Experience at Fort Edmonton Park received a TEA Thea Award in 2022. Photo courtesy Fort Edmonton Park



The Smithsonian National Museum of African American History and Culture in Washington, D.C. Photos courtesy Alan Karchmer

scene – complementary rather than overpowering. The Métis experience is centered around a single cabin and there are two scenes projected onto the ceiling. We used a whole set of lights to simulate moonlight and to shift day to nighttime. There’s also a theater that replicates a story circle with a fire pit. It’s a theater in the round with screens on the outside and totems and clouds overhead. We created an aurora effect on the walls above the space. The goal of our lighting design for IPE was to complement Fort Edmonton Park’s vision to fully immerse the visitor and to emphasize it be experienced to be fully understood.”

Children’s hospitals

Bringing creative lighting to hospital markets has been challenging. In the U.S., one of the biggest hurdles is that hospital lighting is regulated by the Food and Drug Administration and any new concepts must go through a rigorous approval process. Inroads, however, are being made with children’s hospitals, where lighting is often integrated with thematic design to make young patients more at ease. At Seattle Children’s Hospital, each patient suite is fitted with color changing LED lighting, which can be controlled by the child, giving them a sense of control of their environment.

Communication through light

Through its Paradigm servers, Eos consoles, Mosaic controllers and other products, a myriad of environments can now offer the same creative storytelling and thrills as theme parks. “A lot of our products from the theatrical and theme park worlds have found their way to other applications,” says O’Donnell. “They can be found in airports, on cruise ships, building exteriors, in cinemas and houses of worship.”

Citing two final examples, the new MassMutual headquarters building in Boston, where “the lobby uses circadian lighting that interacts with outside influences” and the Tilikum Crossing Bridge in Portland, which “takes info from the National Oceanic and Atmospheric Administration and broadcasts what’s coming in, weatherwise,” Haas concludes that “there’s communication that’s happening in the world around us and lighting is being used to convey information in a way never done before, thanks to ETC’s products.” •••



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Shanxi Shangluo Danhe Building mapping show. Image copyright Wincomn Technology

7thSense Performer Range takes the stage

by Wendy M. Grant

7thSense, a creative technology company that develops products to meet media-based needs in the theme park, attractions, and entertainment industries, launched their new Performer Range of technologies at ISE (Integrated Systems Europe) 2023. The new software and hardware power a workflow that takes pixels from any external source and presents them just as the storyteller or the creative team intended. The Performer Range boasts new capabilities for the 7thSense suite of technologies: now multiple people can simultaneously program a show, storytellers can incorporate the use of generative media engines, and locations can take advantage of new virtual production technology.

“The big draw for out-of-home entertainment is that it has to be something you can’t experience at home,” says Jack Dowd, 7thSense’s Senior Product Manager. “So, if it’s interactive, it has to be more interactive than the latest and greatest smartphone. If it’s a big screen, it has to be a gigantic screen or projection mapping. With the Performer Series, we’re simplifying pixel management for all of these interactive stories being told on unusual canvases.”

Meet the players in the Performer Range

The Performer Range includes Compere®, Actor®, Conjurer®, Juggler®, and R-Series 10. Dowd describes the new product ecosystem in terms of a show. “Compere is the software that

acts as the master of ceremonies, programming all of the other products,” he says. Compere crafts an entire show and then assigns hardware to the different roles that are needed to perform that show.

Actor is the next generation 7thSense media server that plays back frames the same way, every time, just like an actor who delivers their lines perfectly in each performance. Conjuror works with game engines and brings in outside generative media, such as gaming avatars or photos captured in the queue line, to dynamically create the show that gets displayed in an attraction. Dowd notes, “With Conjuror, show creators can treat generative media the same way as playback media and build a show from it.”

Juggler is a processor that handles pixels, whether they come from playback media, live cameras, or generative media. Dowd explains, “Juggler assembles the canvas and determines where the pixels are displayed on that canvas.”

“The ring where all the performers come together is R-Series 10,” Dowd concludes. That’s the hardware platform that runs Actor and Conjuror. R-Series 10 is designed to meet the needs of demanding generative projects, virtual production applications, and complex media-based attractions. Unlike previous 7thSense products, R-Series 10 is available from 7thSense as a standalone hardware product. Customers can load their own software onto it, or it can be configured with one, several, or all of the Performer Range products.

Capabilities designed for client ease

7thSense favors uncompressed media, so it’s no surprise that the Performer Range embraces the latest video streaming standard, SMPTE (Society of Motion Picture and Television Engineers) ST 2110, which is an uncompressed video-over-the-network protocol. But if a client prefers to use NDI, or Network Device

Interface, the Performer Range also works well with that—as well as traditional video interfaces 7thSense products have always supported. In fact, NDI technology is incorporated into one handy new feature the 7thSense hardware provides: a live front-panel display that shows what’s playing. So, on a massive screen, if one portion of the overall image doesn’t look right, it’s easy to see which server in a rack of 10 is the one playing that problematic image. “Since you can quickly identify which server is playing what, it’s fast and easy for a tech team to identify the correct server and address the issue,” John Higgins, Director of Product Development for 7thSense, points out.

The Performer Range is also compatible with generative media engines like Unreal Engine®, Unity®, TouchDesigner®, and Notch®. Whichever tool a customer prefers to use, the Performer Range can accommodate it.

The R-Series is indeed a series. The R-Series 10 is the flagship, and there will be more products to come. Because the products can now integrate generative media, 7thSense is looking forward to doing further work in the realms of virtual production, sporting events, location-based entertainment, and esports, all to meet customers’ increased expectation of interactivity.

7thSense is still supporting their renowned Delta Media Server, notes Higgins. “Delta is still a really good product, and we are retaining Delta and remain committed to supporting it. It’s an extremely powerful media server that has the recently added ability to play back the NotchLC video format,” he says.

Dowd notes, “Depending on your project, Delta might be the right choice. Or Actor might be the right choice. Actor is built on a brand-new render engine, which allows for improved workflows and more harmonized programming. It also has an all-new timing engine, which has been designed to be more flexible and robust



Crystal Palace inside Macau Londoner. Image copyright Wincomn Technology

7THSENSE
7thSense at
Dubai Expo 2020



to-open MSG Sphere are also 7thSense clients. Others cannot be listed due to confidentiality agreements.

Doubling Staff to Serve Clients

7thSense prides themselves not just on their products but also the service they provide for their clients. “We’re very well known for our service team,” Higgins continues. “Our people can go on site and troubleshoot a challenging project, and those are the same people you can call up and ask questions of anytime.”

Theme parks and attractions can even bring 7thSense technicians on-site to help create a new show. For locations that have Medialon or 7thSense products in place and want to use them to develop a new visitor experience, 7thSense technicians can come

for the future. We’ll make sure you have the right server for your needs, and we’ll customize Delta or Actor to your project.”

Customized Technology for Creative Storytellers

7thSense is known for creating bespoke solutions for media needs. “A creative team has a story they want to tell. When they haven’t figured out how to tell it in a particular venue, that’s where we come in,” says Higgins.

“We’re bespoke, but that doesn’t mean we’re guessing,” adds Dowd. “We don’t say, ‘We think we can do it.’ We know we can do it. We’re constantly listening and responding to our clients’ needs. And we aim to exceed our customers’ expectations.”

Dowd explains, “We develop our tools around a general-use case, but customize them to the needs of our clients. If you need five outputs, we’ll provide a five-output server. We don’t sell more pixels or more bandwidth than what is needed. In the same way that you can buy a suit off the rack that fits, but then have it tailored to fit you perfectly, 7thSense’s products offer baseline functionality that then is tailored for each client’s individual needs and particular uses.”

“If you need media that will be shown in a theme park, running 16 hours a day, 365 days a year, being run by a non-technical operator—our products can handle that,” adds Higgins.

7thSense and Medialon products are in use in exciting visitor experiences in thousands of venues worldwide. The “Three Fights with Baiguǐjīng” flying dark ride at Huai’an Xiyou World in China opened in 2021 and is powered by 7thSense media servers and uses a total of 30 Christie laser projectors throughout the experience. For Expo 2020 Dubai, 7thSense supplied 56 media servers and 17 Medialon show control systems. 7thSense products can also be found at Warner Bros. World™ Abu Dhabi, the world’s first ever Warner Bros.-branded indoor theme park and the Millennium Falcon: Smuggler’s Run ride at Disneyland in California. Dubai’s Museum of the Future and the soon-

on site, train the creative team, make changes to the system if needed, and even work as a very highly trained machine operator or commissioning engineer.

Higgins explains, “Our technicians can work through the storyline with the team when they’re doing that final media creation work. We can be there with you, and that can make the show-creation process much easier. We’ve built a business around that hands-on touch. We’re still there, standing alongside our clients, supporting them, years after their purchase.” 7thSense products offer a two-year warranty that is extendable to five years.

He emphasizes that 7thSense is focused on training. “We’ve got new products, and we will be offering online and in-person training,” he says.

In order to continue to meet customers’ needs, Higgins says, “We’re growing our service and support teams as we grow our products.” In fact, over the last two years, 7thSense has doubled its staff to support its growing customer base. They’re continuing to hire.

7thSense is also expanding production into the United States. Previously, production was based in the United Kingdom. “Now, as we grow, we can share that workload with our North American operation,” says Higgins.

See the Performer Range In Person

The 7thSense team looks forward to demonstrating the R-Series 10 and all of the other Performer Range products at InfoComm in Orlando, June 10-16, 2023.

Or if you’ve got an idea for a visitor experience, reach out to 7thSense anytime. “We are a bunch of engineers who really enjoy discussing projects and making them come to life,” says Higgins. “We’re here to help the storytellers tell their stories.” •••

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Expo 2025 Osaka Kansai update

interview by James Ogul

Five world expositions have taken place so far this century: Hannover, Germany (2000); Aichi, Japan (2005); Shanghai, China (2010); Milan, Italy (2015); and Dubai (2020-21) Their combined attendance adds up to more than 159 million visits.

The next World Expo, Expo 2025 Osaka Kansai is a six-month event (April 13-October 13) with the theme “Designing Future Society for Our Lives,” and three subthemes: “Saving Lives,” “Empowering Lives,” and “Connecting Lives.” The expo site is being divided into three zones, each representing one of the three subthemes, and each of the participating countries (150 are signed up so far) will select one of the three zones for its pavilion and exhibit their interpretation of that zone’s theme.

A world expo (aka world’s fair or international exposition) is a monumental endeavor, but Osaka has a successful track record. The Japan World Exposition Osaka 1970, the first international exposition in Asia, was a standard-setter and attracted 64 million

visits. The International Garden and Greenery Exposition in 1990, held under the theme of the “Harmonious Coexistence of Nature and Mankind” was overseen by the Bureau des International Expositions (BIE), the same, Paris-based organization that regulates world’s fairs, attracted 28 million visits.

With opening day a little over two years away, RFPs and opportunities will continue to roll out for individual exhibitors and numerous other aspects of the event. Many of the participating countries have already issued contracts for the design, fabrication and operation of their pavilions.

To learn more about preparations for Expo 2025 Osaka Kansai, we posed questions to Sachiko Yoshimura, Director General of the Overseas Public Relations Team at the Japan Association for the 2025 World Exposition, and Takuya Yoshiyasu, an officer on her team.



The Expo 2025 site is surrounded by a ring, allowing for easy transit between pavilion areas. *Photo courtesy Expo 2025 Osaka Kansai*



Sachiko Yoshimura

How will the expo theme be reflected in the exhibits and programming?

The Expo will feature initiatives aimed at creating a future society for our lives presented by 150 countries and 25 international organizations, as well as companies, NGOs, NPOs, citizens' groups, and others from around the world. They are enlisted in the vision of 17 sustainable development goals (SDGs) of the official Sustainability

Policy of Expo 2025 Osaka, Kansai, Japan.

Each exhibiting country is currently considering on which of the three subthemes their pavilion will focus, and developing ideas on how they will contribute to the SDGs. The expo organization itself will create thematic projects developed by eight leading creators in various fields. The TEAM EXPO 2025 program, a best-practices, co-creation project, will launch prior to opening day and continue after closing day.

Tell us more about the sustainability policy of the expo.

The "Sustainability Policy of Expo 2025 Osaka, Kansai, Japan" was determined in April 2022. The goal is that the expo will deliver new solutions to sustainability challenges, in keeping with the "5 Ps" of Sustainable Development Goals (SDGs): (People, Planet, Prosperity, Peace, Partnership).

Towards the sustainable operation of the EXPO itself, we also determined "EXPO 2025 Green Vision" in April 2022. The vision contains directions and initiatives towards achieving "Carbon Neutral" and "Circular Economy" goals in the operation of the EXPO. Currently, in order to work toward the above policy and to materialize and implement the measures described in the Green Vision, we have several active working groups researching areas such as resource recycling, sustainable procurement, and decarbonization.

How are the city and region involved in planning and execution?

Preparations are underway in cooperation with Osaka Prefecture and Osaka City. We believe that it is necessary to build momentum not only in Osaka, but also throughout Japan, so we are also conducting collaborative programs such as online symposiums for local governments to promote their participation in the Expo and to build momentum in their respective regions. We will also collaborate with the Expo mayoral alliance, a

nationwide network of local governments that will take the opportunity of the Expo to create a regional society of the future.

What are the projected attendance and demographics of visitors?

We expect approximately 28.2 million visitors, of which 3.5 million are expected to come from overseas.

What types of transportation and parking options will be available for visitors?

For public transportation the main routes will be railways and shuttle buses. We recommend the use of public transportation to avoid traffic congestion. For those who will use private vehicles, we are planning to have satellite parking lots that connect to railways or shuttle buses.

How will you make technology and innovation part of the fair experience?

Expo 2025 is, by definition, an initiative on technology and innovation, and we are working on Future Society Showcase Projects. We are planning to provide the participants and visitors various kinds of services by utilizing technologies. For instance, we are considering manned flights of Advanced Air Mobility (AAM), advanced automatic translation systems (consecutive translation and automatic simultaneous interpretation) to provide a future communication environment without language barriers.

Can you provide information on the budget for the fair and how it will be financed?

Regarding the financial plan, we expect the budget will total up to 185 billion yen for the construction of the venue and 80.9 billion yen for the operation of the Expo.

We are planning this budget to be financed one third each, by the Japanese government, Osaka Prefecture and City, and Private Companies. We are also soliciting corporate sponsorships for additional funds.

What kind of measures will be in place to ensure the health and safety of visitors and exhibitors?

We have established a Medical Rescue Council, composed of medical personnel and related administrative agencies, to discuss and coordinate the medical rescue system at the expo site.

We have also established a Safety Council consisting of academic experts and relevant administrative agencies, which is examining the fields of disaster prevention and security in a professional manner. In addition, we have set up a Health Council consisting of academic experts and relevant administrative agencies to discuss hygiene management and countermeasures against infectious diseases at the venue.



The Expo 2025 logo (left) meets a mascot bearing imagery from the 1970 Expo, also held in Osaka. *Photo courtesy Expo 2025 Osaka Kansai*

days to go event” held in February last year, various kind of events were held simultaneously in a range of locations such as universities, train stations, art museums, shopping malls and more. These events successfully increased awareness and raised the interest of many potential visitors. We will actively continue our promotions in Japan, and are starting full-scale overseas promotion in 2023.

How will you be promoting the fair and reaching potential attendees?

We hope to foster the momentum for Expo 2025 both inside Japan and internationally. We have conducted several market research studies to analyze demographics and help determine key content to attract visitors and boost awareness.

Based on this research we have been organizing a number of Expo-related events and initiatives all around Japan. For example, at the “1,000-

What kind of legacy will the fair leave and how will it be maintained?

In recent years, the world has been facing numerous crises of division. We hope that Expo 2025 will play an important role in finding common cause to help resolve problems and conflicts. By bringing the international community of Expo participants and visitors together around the theme, “Designing Future Society for Our Lives,” we aim to create an innovative setting where everyone can work together.

To ensure that the Expo 2025 will not be a one-time event, but rather a legacy for future generations, we are also aiming for reuse, recycling, and other methods to make the most effective use of the venue facilities, equipment and temporary construction. •••



Since retiring from the US State Department in 2011 after a 30+ year career in world expos, James Ogul (jogul@comcast.net) has remained on the scene in an advisory and consulting role. He writes regularly for InPark Magazine about world's fairs. See his free online book, Tales From the Expo

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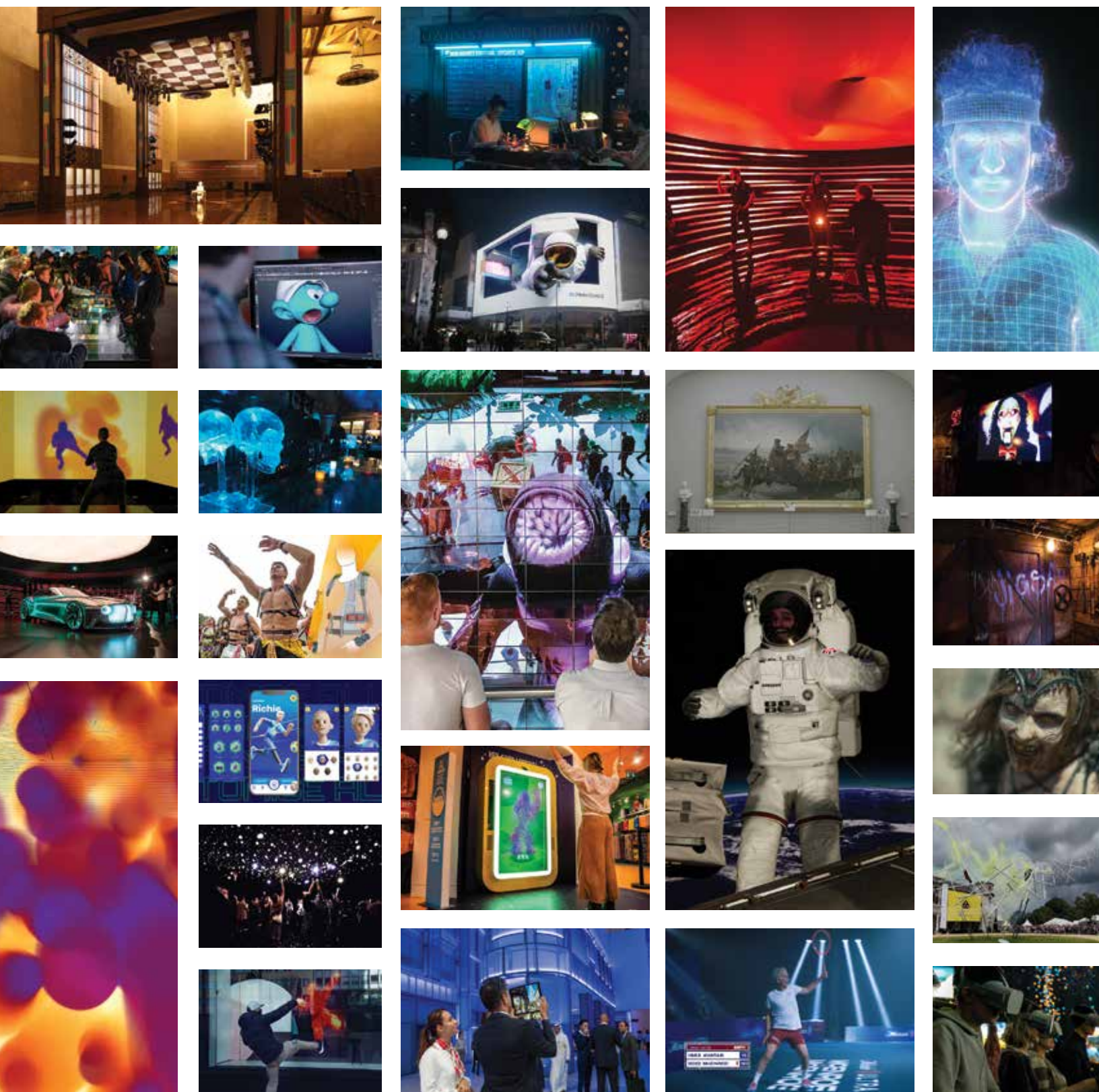
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ACM heads to NOLA

The Association of Children's Museums Executive Director, Arthur Affleck, invites professionals to New Orleans

interview by Martin Palicki

The Association of Children's Museums (ACM) and Louisiana Children's Museum invite children's museum professionals to InterActivity 2023: Leverage Our Voice in New Orleans, April 26-28. "As our field continues to respond to challenges – and new opportunities – we know the importance of using our voice to advocate for our field, our communities, and most critically, the children and families we serve," says ACM's Executive Director Arthur Affleck. "We expect about 1,000 attendees to come on down to the Big Easy, where the Louisiana Children's Museum has invited us to experience their new home in City Park. This 8.5-acre, LEED Silver-certified campus represents a culmination of years of leveraging their voice as a place of healing and resilience for the community.

"InterActivity 2023: Leverage Our Voice invites the children's museum field to celebrate how far we've come as well as envision how far we'll go. The conference will be organized to mark the conclusion to ACM's 60th Anniversary Year as we look to the future under the guidance of our 2022-2027 Strategic Plan. Sessions will be organized by ACM's four Strategic Priorities (Community; Children and Families; Advocacy, Policy, and Research; Organizational Strength), with equity, inclusion and sustainability centered throughout the conference program."

For people who have attended InterActivity before, what will be new or different this year?

The great thing about InterActivity is that everything is new each year. We always go to a new city, a new venue, visit new museums, host new study tours in the city, have new and improved sessions and the keynote speakers are new to most attendees. Additionally, at InterActivity 2023, we will celebrate the conclusion of ACM's 60th Anniversary Year!

What can people who have never been before expect?

Those attending InterActivity for the first time, or if it's been a few years, can join us for "New Attendee Orientation" to learn how to get the most from the conference, take their learnings back to their colleagues, and meet ACM staff and members of the InterActivity 2023 Program Committee. Our InterActivity conference is not just about the sessions and the speakers, it's about the community and the people who attend – and the networking! First time attendees will likely meet people who will become lifelong friends and colleagues.

Another thing to expect is a lot of learning. Attendees often come to expand their knowledge, learn, and improve their practice, whether they are in exhibits, education, development, external relations or other areas in the museum. Then they will experience the joy of two plenary sessions with 800 plus colleagues in one space, there to hear exceptional keynote speeches.



Arthur Affleck

In addition to the networking, sessions, and keynotes there is the "MarketPlace." Here attendees will engage with about 100 exhibitors who offer products and insights into the latest trends, technologies, exhibits design approaches and more.

Why it is important for professionals to return to a conference like InterActivity now?

As the children's museum field emerges from the worst of the pandemic, many visitors are returning but there is still a lot of uncertainty about the future. At the conference, we will discuss strategies for anticipating and addressing economic and other potential challenges to children's museums.

We will also host a special "CEO and Directors Retreat." During this retreat they will be able to re-energize, recharge, and engage with their peers before the conference begins in full. Together we will explore issues and opportunities of interest to ACM member museums – large and small. While new and exciting ideas will be discussed, this retreat will be decidedly tactical. We will surface and discuss some of the big problems CEOs are facing. For a portion of the retreat, we will use the unconference approach, which will allow attendees to select the hot topics they most want to discuss and explore with their peers. Last year over 100 CEOs attended the retreat.

What sort of social and networking opportunities can people expect?

First, ACM offers the annual Emerging Museums Pre-Conference to share foundational and effective practices of the field with those in the process of starting a children's museum.



Attendees at ACM's 2022 InterActivity conference have fun with bubbles. Photo courtesy ACM

The agenda changes each year to keep pace with new trends and insights, but always includes perspectives from recently opened children's museums. These leaders with newly opened museums or soon to be opened museums can engage and network with experienced museums leaders. Some will find mentors.

Second, the conference is designed for social interaction and networking throughout. In addition to engaging during the sessions and workshops, attendees will spend a fair amount of time in the exhibit hall, where they will engage with exhibitors and sit for coffee or tea as they meet and greet old and new colleagues and friends.

What brought you to New Orleans for this year's event?

New Orleans is one of the most popular destinations for conferences. This year, when our conference ends, Jazz Fest begins. Just a couple of the reasons for bringing our annual conference to the "big easy." We also chose New Orleans because of the excellent Louisiana Children's Museum (LCM), which is our conference co-host.

What are some of the educational highlights?

Each day begins with an educational and inspirational keynote address. InterActivity 2023 includes six blocks of Concurrent Professional Development sessions which feature seven thematic streams. Diversity, equity, accessibility, and inclusion (DEAI)

is embedded in the sessions. There will be four study tours – including two at the Reggio-inspired Louisiana Children's Museum, one at The National World War II Museum and one at 826 New Orleans: A Space to Cultivate the Voices of Youth Writers.

What are you most looking forward to?

I am most looking forward to seeing so many of my colleagues and friends from children's museums from around the U.S. and the world. I am also looking forward to the keynotes and the big party on Thursday evening at the LCM.

InPark's staff will be at InterActivity 2023. Copies of the latest InPark Magazine will be available in all ACM attendee bags.

Special thanks to Arthur and ACM for their help in assembling this information. Arthur G. Affleck, III, M.Ed., JD, as Executive Director of the Association of Children's Museums (ACM), is the chief executive responsible for the strategy, development, and program execution for the organization.

Serving museum members in the United States and countries across the globe, the Association of Children's Museums (ACM) is an international nonprofit professional service organization representing and advocating for the children's museum field. As one of the fastest growing cultural industries in the world, children's museums have expanded exponentially in the past two decades. Currently, ACM serves over 480 total museums, businesses, educational organizations, and individuals in 50 states and 16 countries. •••



Cats in a contest of power. Licensed from Adobe Stock

Kids and cats: inspiring interactive play

What children and felines teach us about play can be applied to game design

by Jenny Lim and Erica McCay of Valtech Themed Entertainment Studio

How do you make something fun? As interactive designers, we know that winning – while rewarding – is not enough to make a game engaging. Nor are points, nor timers, nor any of the other shorthand tricks that designers use to amp up a game. A game must have a fun activity at its core. If it does not, no amount of points and “gamification” will get players hooked.

Our source of inspiration starts at home. Kids and cats, each in their own way, create fun activities out of seemingly nothing. With a delicate balance between curiosity and chaos, these moments of joy and expression illuminate core principles of interactive design.

We will explore this with a case study of two games: Beat the Buzz and Laser Cats. We will examine the wisdom of the kiddie and the kitty through three principles:

1. Balancing mastery and surprise
2. Exploring power and competition
3. Playing without purpose

Balancing mastery and surprise

Play should be intuitive yet unexpected: a balance of skills that the player can master, and surprises that keep the player from getting bored.

Have you ever entertained a cat using a laser pointer or a dangling toy? Move it too quickly, and the cat just watches. Don't move the toy at all, and the cat ignores the whole show. When wielding the cat toy, you must mix moments of stillness with quick, sudden bursts of movement. You must make the prey catchable, but not a sitting duck. Cats want an attainable challenge.

Have you ever heard a child shout “the floor is lava!”? Anyone can walk across a room, but can you jump? And if you become too good at jumping from chair to table to couch, can you dodge freeze blasts from another player pointing a stick?

Introducing increasingly complex rules and obstacles to reinvent how you are allowed to move through space allows mastery over and over again. Making up their own rules, then layering more on

top while playing, creates surprise and continuing interest – even for the child making the rules. How will other players react? Kids crave evolution.

Exploring power and competition

Play provides a space to explore power and competition, whether physically or fictionally.

Games of power aimed at humans can range from literal (Nerf wars) to symbolic (Monopoly), with no decrease in brutality – in fact, we'd argue that Monopoly is extremely brutal, though played in a civilized manner. The game, invented in the 1930s by Charles B.

Darrow, in fact has origins as a Socialist statement. Darrow came up with two versions: one where everyone gets along, and one where players are capitalists out to bankrupt each other.

We all know which version of Monopoly survived, but why? As kids learn the rules of society - how to behave, how to interact - they are required to sit still, to be nice to people, to share, etc. whether they are in the mood or not. What better way to blow off steam than to impoverish your friends within a fictional and strictly limited sphere? While we may condemn robber barons in reality, within the realm of fantasy one may play it with gusto.

Playing without purpose

The purest form of play is unprompted. The child who runs around with a ball despite no playmates, no scoring, no goal or points. The cat who attacks the shoelace that never did anything wrong. This is a gold mine for inspiration. What is your child or cat doing? Can you do it, too?

Kids and cats let themselves be impulsive and in-the-moment because they aren't constrained by considering the consequences. This can be a safety challenge, but one can design for open-ended exploration within limits.

By being free to follow impulse rather than overcalculate, kids and cats are the best play-testers of an experience. And if something is not fun, they will not do it. Kids and cats show their feelings, and kids have the added bonus of being very vocal about what they did not like.

Plus, kids and cats have an amazing ability to break things. They are natural quality testers. Better to learn where the experience, or physical pieces, break early on, right?

So how do the above principles apply to actual games?



In this reinvention of the childhood Hand Slap Game, can you Beat the Buzz and outscore your opponents?
Photo courtesy of authors

Beat the Buzz

Beat the Buzz is a reinvention of the childhood hand-slap game. It was designed by Erica McCay and Jenny Lim, and built by Valtech Themed Entertainment Studio, IFM Interactive, and Alchemy Controls. Watch a video at tes.valtech.com/InPark95. In Beat the Buzz, players place their hands on a podium and feel a haptic signal that signifies that it's their turn. For as long as a fan blows on their hand, they must score as many points as they can by frantically slapping a large button.

The challenge? It's a one-handed game. Will you keep hitting the button and risk scoring points for another player, or spend precious moments checking the fan to see if it's still your turn?

1. Balancing Mastery and Surprise

- Each player gets turns of varying length, such as 1, 2, 1.5 seconds. If you play enough, maybe you get a feel for those durations.
- The players are called randomly, so you might master a feel for turn duration but when will your fan go off?
- Can you discover other ways to learn when it is your turn, perhaps by engaging the audience to assist?

2. Power and Competition

- How fast can you slap the button?
- Can you stop at the right time, so you don't give points to other players?
- As an audience member, can you distract or mislead players, allowing you to be higher in the leaderboard when it is your turn?

3. Playing without Purpose

- Is it fun to hit buttons that light up? Yes, it is!
- Can we get adults to let down their guard and be silly at a professional networking event? Yes, we can! And the shared experience is a great icebreaker!



Take on the ultimate cat challenge: catch a laser.
Photo courtesy of authors



All these toys are for meeeee. Photo courtesy of authors



Here fishy, fishy. Photo courtesy of authors



This isn't a couch, it's a launch pad! Licensed from Adobe Stock

Laser Cats

Laser Cats was made by Jenny Lim and DongChan Kim. You can read more and watch a video at jlimetc.com/games#/laser-cats/. It lets you be a cat chasing a laser.

One player directs a laser mounted on their head. The other player attempts to catch the laser with their “paws” (soft mittens with light sensors sewn onto the back). Every time the sensors catch the laser, the Cat scores a point.

1. Balancing Mastery and Surprise

- The Laser Player wants to make the Cat Player run around to maximum comic effect.
- The Cat Player impresses the audience with their athleticism. Didn't think I could jump that high, did you?
- A few basic rules ensure that the Laser Player has control, allowing them to change the requirements for mastery on the fly.

2. Power and Competition

- Laser Player: move your head ever so slightly, and the Cat will dance to your tune. How ridiculous can you make your friend, family member, or a total stranger look?
- Cat Player: Yes, you're being manipulated. But you're also the one racking up the points!

3. Playing without Purpose

- Is it fun to chase things? Yes, it is.

Discovery leads to game design

Game design is not a matter of invention, but discovery. What behavior do we observe in kids and cats who play without prompting? How can we identify the core appeal of these activities and create games that crystallize the payoff for human players of all ages?

We draw inspiration from three common attributes:

1. Balancing mastery and surprise
 - Mastery must be possible, but it can't be too easy
 - Add new ways to master the game as players improve
 - Create surprise through layering rules
2. Exploring power and competition
 - Embrace ways to break everyday rules in a safe way
 - Pivot from the original design to find the fun!
3. Playing without purpose
 - Allow room for play with no set goal or instruction
 - Find opportunities to play everywhere

These same attributes can be found in the most successful games, from tabletop RPGs to the embedded games in high-end theme park attractions such as Super Nintendo World.

When looking for inspiration, turn to the simplest examples in daily life. We recommend you find a young and/or furry muse, identify the basic source of joy, and build from there.

More information: <https://www.tes.valtech.com/> • • •



Kitty knows that even an elaborately engineered game like Gloomhaven is rooted in a desire to wage physical battle. *Photo courtesy of authors*



Jenny Lim is an NYC-based game and interactive designer interested in play and immersive experiences. She's used game engines, writing, physical computing, props, sets, video and audio to tell embedded, interactive, linear and nonlinear stories. Her work has shown at the Tribeca Film Festival, Indiecade East, Games for Change, the Museum of Modern Art in New York, and on HBO...and will soon be featured at an amazing

theme park that cannot be named!

She works as an interactive designer at Valtech Themed Entertainment Studio. In her free time, she enjoys public speaking, listening to audiobooks and attempting to entertain her cat.



Erica McCay (she/they) is a creative director, writer, and designer of stories that connect people and place. She has worked in the fields of interactive theme parks, theatre, and play-based education since 2005.

For the last ten years between Universal Creative and Valtech Themed Entertainment Studio, Erica has focused on designing large-scale interactive experiences, including wand magic at Universal Studios Hollywood and the land-wide game for Universal's Thea award-winning Super Nintendo World in Japan, Hollywood, and Orlando.

Erica has an MFA in Creative Writing and multiple patents including "Interactive gaming system." Outside of work, Erica enjoys playing with her daily inspirations: her spouse, two kids, and two cats.



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Onlookers admire the 20m 8K LED CX Display at Cosm's Salt Lake City Experience Center. All photos courtesy of Cosm

Cosm's Shared Reality technology powers the experience economy

by Matthew Allred, Cosm

Powering more than 2,000 immersive experiences across 50 countries and achieving 25 million visitors to these experiences, leading immersive technology company Cosm helps its global clients deliver best-in-class experiences that stimulate customer retention and audience engagement. To remain competitive in the experience economy, today's science centers, museums, theaters, theme parks and other attractions must have compelling offerings not easily replicated at home. This will enable them to obtain new guests, and bring those guests back again and again.

A shift in values and spending

Now more than ever, consumers are seeking out inspiring and unique experiences. Over the last two decades, spending behavior has seen an uptick favoring experiences over tangible goods, with more than three in four (78 percent) millennials choosing to spend their leisure dollars on an experience or event over buying material goods. For this generation, whose spending power now exceeds \$2.5 trillion, happiness isn't obtained through accolades or possessions, but rather by creating, sharing, and capturing memories through meaningful experiences.

This global shift in consumer spending, in conjunction with the impact of the COVID-19 pandemic, increased consumer desire for human connection and propelled the experience economy forward exponentially. While the post-pandemic audience favors meaningful experiences with others, there was a significant uptick

in at-home media consumption during the first years of the pandemic that is still thriving today. We must reclaim the power of compelling, in-person experiences. Accordingly, attractions and institutions are improving their experiential offerings in hopes of motivating consumers to discover fresh, unique, out-of-home experiences.

The opportunity of Shared Reality

Whether institutional or commercial, operators are increasingly turning to reality technologies - such as VR (virtual reality), AR (augmented reality), and XR (mixed reality) to transport guests into new experiences without the need to travel to exotic destinations. But the feat is not simple - to deliver a truly rich and seamless guest experience, the technology itself must virtually disappear so guests can easily suspend their disbelief and be transported to a completely different world. Invisible tech equals visible magic.

As an immersive technology company, Cosm has developed a new type of reality technology it calls "Shared Reality." Combining the best of the virtual and physical worlds, Shared Reality brings immersive experiences to expansive physical spaces, as opposed to personal VR headsets or TV and phone screens. Cosm's technology completely envelops the audience in the content they love within a physical and social environment. "Equal parts reality technology and exciting social experience, Shared Reality is the future of immersive entertainment," Cosm

Chief Technology Officer Devin Poolman explained. “Imagine sitting courtside and cheering on your favorite team during a playoff game, or dancing in the front row of a sold-out concert with your friends – that powerful energy invites an electrifying communal experience that is impossible to replicate at home.”

Best seat in the house

Differing from an in-person communal experience such as that of a movie theater or fine arts performance where audiences are advised to sit quietly and avoid interacting with the person they’re next to, Shared Reality speaks to the human desire to witness and validate experiences with others, while in the moment, acting as a conduit for a collective, shared experience, not an individual one.

The best part about a Shared Reality experience is that any type of fan can experience their favorite content in a way that has never been done before and they are guaranteed the best seat in the house, every time. In addition, Cosm’s technology enables content to be changed at the press of a button, enabling attractions to entice new audiences with minimal operative lift.

With a single investment in Shared Reality technology, institutions and attractions have a significant opportunity to both grow their audiences and continue to usher them back time after time. The Shared Reality technology draws upon decades of R&D, innovation and achievement by the companies now united

under the Cosm umbrella. Building the first fully immersive and interactive Shared Reality experience is a direct result of expertise in immersive dome design, image processing and calibration, 3D realtime computer graphics, and high-resolution video workflows.

Cosm at the forefront

Cosm itself was born from the fusion of some of the greatest innovators in the history of technology: Evans & Sutherland, Spitz, Inc., LiveLikeVR (now Cosm Immersive), and most recently C360, creating a vertically integrated entertainment, media, and technology solution to power the immersive experiences of the future. Built on decades of innovation, Cosm has achieved many “firsts” in the industry, such as delivering the world’s first immersive 8K livestream during the 2022 Olympic Games in Beijing. The company has also secured major content partnerships such as the NBA, and additionally has unveiled plans to open public-facing, immersive entertainment venues in Los Angeles (Hollywood Park) and Dallas (Grandscape), with more venues to come.

“For 75 years, Cosm companies have been at the forefront of innovation in immersive technology,” Cosm’s Executive Vice President Kirk Johnson explained. “We strongly believe in the power of Shared Reality, backed by our advanced full-service suite of immersive technology and content capabilities that are unavailable anywhere else in the market. We are excited about



CX Engine’s real-time visuals power awe-inspiring Shared Reality experiences.

Cosm's future as we continue to power immersive experiences for world-class attractions and institutions, secure partnerships with major content creators and distributors, and deliver live, immersive content to our partners around the world."

The CX System – best-in-class immersion

To power some of the world's most iconic experiences, Cosm developed its CX System, an end-to-end technology suite that creates and drives larger-than-life experiences by integrating custom-engineered, compound curved LED displays, known as Cosm's CX Display, and industry-leading software, Cosm's CX Engine, that boasts highly advanced calibration and blending capabilities while seamlessly integrating with realtime rendering engines like Unreal Engine and Unity for endless unique, interactive Shared Reality opportunities. This technology allows Cosm to produce and stream live events in immersive 8K to partner attractions and institutions across the globe. In addition, the immersive, realtime content can be created by the existing studio industry or easily developed in-house for custom experiences, delivering the multi-sensory and interactive experience consumers seek.

By empowering global partners to deliver best-in-class immersive experiences on an unprecedented scale, Cosm brings consumers

the future of entertainment, today. Through its proprietary technology, enterprise-level platform, and world-class media – rivaling anything else on the market - audiences can interact with a simulated environment like never before. Consumers continue to desire savvy and awe-inspiring experiences, and it has been proven time after time, that early adopters and innovators of new technologies - such as Cosm's immersive Shared Reality technology - tend to be rewarded with increased market presence, prolonged business operations, repeat customers, and continued technological advancement. Cosm's end-to-end technology powers the next generation of immersive experiences, ensuring its clients capitalize on the ever-changing trends in today's experience economy. • • •



With expertise in marketing, brand development, and design paired with strong leadership and a deep knowledge of the many industries Cosm serves, Matthew has been instrumental in introducing Cosm and its mission to redefine the way people experience content.



Cosm's end-to-end suite of immersive solutions transports audiences anywhere in the world and beyond.

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FIND YOUR SOLUTION

Should you head to SEA?

Saudi Entertainment and Amusement Expo Event Manager Mohammed Faisal on the annual trade show in Saudi Arabia

interview by Martin Palicki

This May 28-30, 2023, Riyadh will play host to the Saudi Entertainment and Amusement Expo. The trade show has recently become popular with attractions industry professionals seeking business in Saudi Arabia and the surrounding region. We asked Event Manager Mohammed Faisal for information on this year's event.

What can people expect when attending SEA?

The 2023 edition of Saudi Entertainment and Amusement Expo is going to be the most exciting edition yet. The event will continue to foster relationships between key buyers and sellers in the entertainment and leisure markets, with over 300 global manufacturers and suppliers participating with their latest developments and solutions. The show has grown by 35% in less than a year. It is a thriving market, and SEA Expo offers an opportunity to get access to a wide range of products, learn about latest industry trends and interact with over 100 expert speakers sharing updates on the multi-billion dollar projects happening in the region.

From what parts of the world do you draw the most visitors?

Last year, we welcomed visitors from over 56 countries, with many now taking advantage of eased travel restrictions and a quicker Saudi visa process. This year, we aim to attract even more visitors from the Middle East and beyond. We expect a roughly 80/20 ratio of local versus international attendees.

Can you give us an update on the Saudi attractions market?

From Qiddiya to NEOM, Saudi Arabia is host to billion-dollar giga-projects and attractions in development as part of the country's Vision 2030. The Kingdom's aim is to diversify the economy and reduce the reliance on oil. The industry is rapidly growing with the Crown Prince Mohammad bin Salman recently confirming Diriyah as the fifth giga-project after the NEOM, Red Sea, Qiddiya and Roshn developments.

For example, NEOM's first luxury island, Sindalah, is due to open in early 2024, covering 840,000 sqm. NEOM also includes The Line, a zero-carbon city with vertically layered buildings for work, living and leisure. The residents will have access to all facilities within a five-minute walk. Trojena is a mountain resort

with a ski village, ski slope and a nature reserve which has been chosen to host the 2029 Asian Winter Games.

Saudi Arabia has many smaller projects in development also. Saudi Entertainment Ventures (SEVEN) recently announced a \$13 billion investment in 21 entertainment destinations across the country. In addition, Saudi's Public Investment Fund issued a request for proposals from global oil & gas contractors to build a \$5 billion oil rig theme park called The Rig. Finally, Al Hokair Group, a hospitality and entertainment pioneer in Saudi Arabia, continues to expand and invest in bringing new entertainment experiences to the country - all of which clearly show the scale of opportunities the Kingdom presents for companies locally and globally to be a part of the fastest growing market in the world.



Mohammed Faisal

Will there be social activities for attendees?

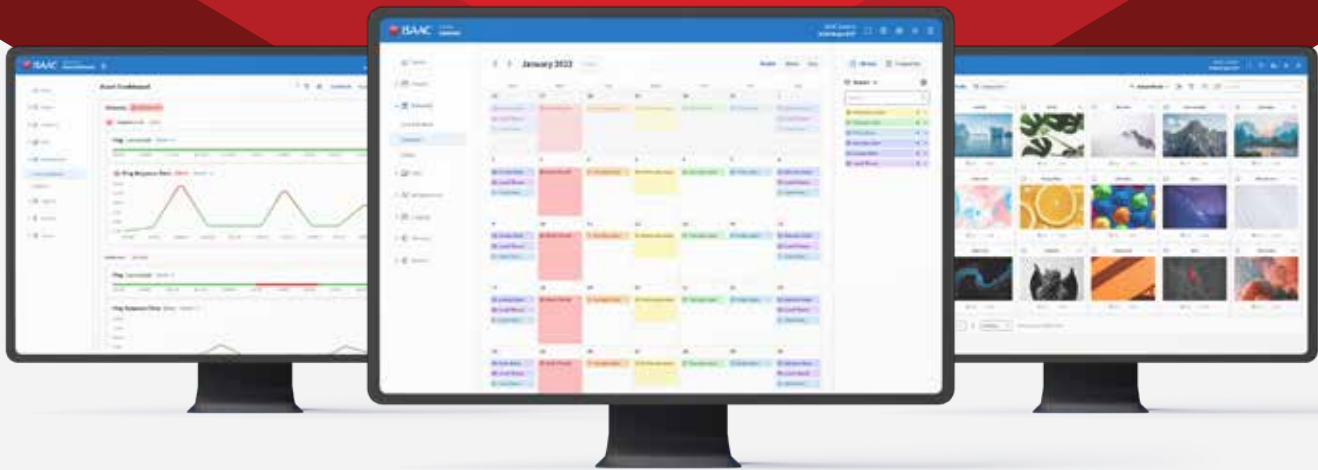
We are working behind the scenes with our partners on exciting networking events outside of the trade show floor. Details on this will be announced in the next few weeks. Check the event website for the updates.

When is the right time for people to consider booking their travel and hotel arrangements?

We recommend international visitors start booking flights and hotels two months before the show takes place (May 28-30) as the hotels around the venue sell out quickly. We have partnered with Hotel Maps, who offer great deals and discounted rates. Check out our website for offers.

Do you have any advice for people visiting KSA for the first time?

Saudi Arabia is rich in heritage and history. The country is home to hundreds of historically important sites, and visitors can use the opportunity to visit places like AlUla, one of the oldest cities in the Arabian Peninsula. We recommend traveling beyond the big, known cities, like Riyadh and Jeddah, but also exploring the less well-known sites. The country is safe, has sophisticated infrastructure and is very hospitable. •••



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