



in park
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The Wave & the Spire

Polin helps
Coventry, UK
create a vertical
waterpark



IAAPA Expo Preview

Get ready for 2019's industry gathering in Orlando

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Issue 79.5, explained

**Martin Palicki,
IPM publisher**



People with an eye for detail may have noticed that this is InPark issue #79.5. It's a rather odd number for a magazine, so maybe a little explanation is in order.

After establishing the editorial calendar for this year, we got feedback from readers that our post-IAAPA issue reached folks at a time when many were heading home for the holidays or otherwise intending to take a break from work.

Instead, there seemed to be interest for more coverage both right before the IAAPA Expo and then during the week of the Orlando show. In that way, an IAAPA preview issue could help drive readers to certain booths or events at the show, while an issue released the week of the show would allow companies who were planning to make announcements during the expo have a story ready to go in print.

This seemed like a good idea and has allowed us to bring you two issues nearly back-to-back full of exciting news, in-depth reporting and trend-watching.

This presented us with a small numbering challenge, however. As IAAPA 2019 will mark InPark's 15th anniversary, we wanted a nice round number like issue 80 to align with that event. Issue 81 got pushed into 2020, then the concept of issue 79.5 was born and subsequently added into the schedule.

So enjoy 79.5, our IAAPA preview issue, and get ready for 80 to launch on Tuesday, November 19th – opening day of IAAPA Expo 2019, and InPark's 15th anniversary. Both issues will be available at the InPark booth (#1773) and in the publication rack at IAAPA Central. We'll see you there!



Joe Kleiman is News Editor for the InPark website. He has 25+ years management experience: in tourism, museums and attractions, in the giant screen industries and as a zookeeper.

COVER: The Wave in Coventry, UK, was designed within a limited footprint. Polin Waterparks' team of designers were "up" to the challenge and built vertically within the park to maximize space for slides and attractions.

Full story on p. 56

Fan power

**Judith Rubin,
IPM editor
(with Joe Kleiman)**



Visitor attractions have proven themselves a valuable space for IP-branded characters and experiences that today - thanks to state-of-the-art digital tools and creative storytelling - jump successfully and seamlessly from one platform to another.

There are clear incentives to license an IP for an attraction. An established IP brings with it marketing power and an existing, loyal fan base. Beloved characters and familiar story elements ensure a level of recognition and comfort on the part of the guest. And an IP fan community that gives its approval to an experience is more than willing to share the excitement and spread the word.

Just as the digital world we now live in helps to extend the reach of brands and IP, it has facilitated dialog between owners and operators and their guests. Fan communities are a big part of the guest population at theme parks and visitor attractions. Today, fans' voices are stronger and clearer than ever, with myriad open channels for discussion and feedback on guest experiences. In turn, operators can share new developments directly with fans, and creatives can reap recognition through social networking activity and large, fan-fueled events such as the D23 Expo and Comic-Con.

Today's branded experiences are created and evaluated in an environment in which there is intense pressure to get it right, but also a lot of information to help reach that goal. Everyone's in it together – including the fans - and when the experience is a success, everybody wins.

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Switching platforms

Industry professionals exploring new media outlets

interviews by Joe Kleiman

Jennifer Lee Hackett

Feature films and more

Giant screen cinema veteran Jennifer Lee Hackett has joined Sinking Ship Entertainment, a Toronto-based producer of children's television and film programming, where she will oversee sales to the museum, science center, and attraction markets, beginning with a film version of the hit television show "Dino Dana." Hackett has over 15 years' experience in the industry, most recently as Director of Sales for nWave Pictures. Prior to that, she served as Director of Sales and Distribution for National Geographic Cinema Ventures and as the Senior Group Sales and Marketing Manager for Smithsonian Enterprises.

Tell us about Sinking Ship Entertainment and what attracted you to the company.

Sinking Ship is a multi-award winning production and distribution company. Most of our work is live-action/CGI blended series and feature films, though we have just recently expanded with the addition of an Animation Series division. Sinking Ship is a progressive company and strives to think outside the box. They are advocates for children and they are forward thinkers, which was why joining the team was a great opportunity and a really great fit for me. The thoughts and visions I have about making education an entertaining experience are matched by what the company is doing; I earned my Masters in elementary education, and as a bonus tie-in, my five-year-old daughter loves their TV show "Dino Dana."

You've been involved in museum and institutional film exhibition for quite some time. What changes have you seen during your career and in what direction do you see the industry headed?

First of all, there's been a change from film to digital. Along with that, there was a move from institutions to standalone theaters – like the one I opened at Jordan's Furniture in Massachusetts in 2002. Now, giant screens are everywhere, and the major competition now is with handheld devices and streaming. Where's the industry heading? I asked myself that same question, and then added "What would make me drive 45 minutes to see a film?" My answer was "It needs to come with an experience." As a parent, I feel the need to be able to bring home an extension of the experience; what did we learn? how do we apply that here? what was the purpose? I want to further engage my children, and our hope at Sinking Ship is that "Dino Dana: The Movie" will do



just that for other families. More than just the film, we need to create an experience beyond the time spent in the theater.

In keeping with what you just said, Sinking Ship is offering companion AR and VR programs to "Dino Dana." Are there plans to implement this type of cross-platform strategy with other productions going forward?

The infrastructure is already in place at Sinking Ship for AR and VR production. Apps are available in online stores and headsets can easily download the information needed for the experience. In AR, one of the things we've created is an interactive dinosaur excavation that can be played in the museum or at home. With VR, there are different levels of programming, depending on budget and need. Some of our AR and VR is designed for guests to bring the experience home, while some can be used as static displays in museums – it's all somewhat customizable, with some flexibility based on needs. Instead of the traditional educator's guides that accompany giant screen films, we have a family guide designed by education professionals, which serves both educators and parents. The guide is easily accessible as a download. With the guide, we walk families and classes through the scientific

model. A lot of museums and science centers want tangible collateral, so we offer tactile activities in the guide. There's also a companion book – a field guide about dinosaurs. It has references to the size of dinosaurs, other fun facts, and lots of colors. With our AR and VR programs and family guide, we blend the line between education and entertainment.

Are there any underserved or emerging markets that you'll be pursuing? Will Sinking Ship's productions be made available for digital planetariums and other full-dome theaters?

The markets are all open. Because our mission is educating and entertaining children, we want our products to be very accessible.

That means everything from the giant screen down to portable screens. We've placed our guides on our website to make them readily available and we've worked hard to make them as inclusive as possible. Because we're serving kids of all kinds, we're sensory friendly. For younger children, who are still developing, we have a 2D version and we're developing shorter versions of the films. We're looking at the "Dino Dana" sequel for the digital dome, shooting with the dome in mind to make sure the image looks right. We have a lot of IPs. "Annedroids" (a STEM-themed IP told through the lens of an 11-year old girl) might be next – it's a natural fit. We have a tight pipeline, but we'll see what the next one to go forward with will be. If our model proves successful, which we believe it will, there'll be a lot more Sinking Ship productions put in the museum pipeline. •

Greg Lombardo

Netflix and thrill

Greg Lombardo recently joined content producer and streaming service provider Netflix as its Head of Experiences. Lombardo brings with him more than a decade's experience in branded attractions, having served in key positions at Fox Filmed Entertainment and BRC Imagination Arts. At Fox, his projects included the Simpsons Springfield lands at Universal Studios Hollywood and Florida, the Avatar: Discover Pandora touring exhibition, the Aliens Descent VR attraction, and the development of Fox-branded theme parks in Malaysia and Dubai. At BRC, he played a key role in branded entertainment projects for Bacardi, GE, Pepsi, AmorePacific, Chevron, Abbey Road Studios, Guinness, Swarovski, GM, China Mobile and SyFy Channel. Lombardo also served as CEO of OffShore Surf, an indoor surfing concept, and as the Creative Director, Show Content for the USA Pavilion at Expo 2010 Shanghai.

What attracted you to Netflix?

In short: mission, culture and people. Netflix has completely re-defined the entertainment experience and having the chance to come aboard at a time when the company is exploring new ways to engage fans through out-of-home experiences was an incredible opportunity. The culture of Netflix encourages questioning, collaboration, learning and forward thinking – all of which are critical to re-defining the experience space.

What is Netflix's approach to themed entertainment experiences?

Netflix's approach is focused on adding value to the consumer experience. Netflix works with some of the best talent in the world to deliver amazing shows and films to its members. We want to apply the same high standards to our experiences. It's all about creating and sustaining fan joy.



What opportunities are there for individuals and firms in the themed entertainment field to partner with Netflix?

We are seeking collaborative relationships with best-in-class firms across live and location-based entertainment who are passionate about changing the game. Our partners should understand that creating fan joy is always the primary objective. We want to push the envelope in order to bring our fans profound and innovative experiences and we'll challenge our partners in positive ways to live up to that pursuit. •••



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Ryan Miziker, Charlotte Huggins, Sean Chung, Ron Miziker. All photos courtesy of Miziker Entertainment

Story-driven, technology-infused

A new era of Miziker Entertainment

by Freddy Martin

Miziker Entertainment is celebrating its 35th anniversary with all eyes focused on the future. The new era of the award-winning, Burbank-based show design and production firm is igniting a future even more spectacular than its storied past. Led by the dynamic partnership of Chief Creative Officer Ryan Miziker and CEO/Executive Producer Charlotte Huggins, the company has adapted to recent industry shifts by offering its signature expertise in parades and shows to operators worldwide, advancing the craft of oversized kinetic puppetry, and having recently patented an innovative, modular float and chassis design that promises to revolutionize digital signage and parade float technology.

“For 35 years, we have enjoyed producing a vast portfolio of shows and parades, media-based attractions, and memorable guest experiences for clients around the world,” said Ryan. “Now, more than ever, we’re bringing the best creative minds and innovative product offerings to every project we undertake.”

Adapting and advancing

Like most themed entertainment firms with decades of experience, Miziker Entertainment has faced the challenge of an industry that is evolving.

“We took a good, hard look at the way the industry is changing and recognized that we can’t act only as creators and producers anymore,” said Charlotte. “We invested in our own products and systems, and challenged our expectations about what Miziker Entertainment could become. From there, we developed creative strategies, new systems, and unique products that we believe will propel our company and clients forward.”

This philosophy/methodology is reflected in the working environment in Miziker Entertainment’s Burbank, California offices. The walls of the studio are covered in storyboards and sketches for new live shows, multi-media entertainment and parades in the works. Fabric samples, wire frames, sketches, storyboards and miniature sculptors give the conference room

the feel of a workshop rather than a meeting space. But that is the way they like it – because Miziker is a perpetual workshop, drawing on its rich history and experience to gauge and respond to the needs of the global markets it serves today.

Parades and park-wide entertainment

Parades and spectaculars are at the heart of the Miziker Entertainment story. Founder Ron Miziker built his career producing live entertainment and parades for Disney theme parks, the Olympics, and NFL Super Bowls, among many others. He is recognized for his role as project director alongside creator Robert Jani of the beloved Main Street Electrical Parade at Disneyland and Walt Disney World.

Today, parades remain the company’s sweet spot and more specifically Ryan Miziker’s passion. He is a lifelong student of people and places, especially the way they celebrate. Around the world, passages of seasons, religious observances, and cultural festivals all use parades to mark important dates and unite their communities. Ryan also recognizes the unique and important role parades play in today’s theme park experience.

“Parades are a grand expression of the human experience,” said Ryan. “Theme park parades tap into that part of our cultural history. Disney pioneered the genre; now, people of all backgrounds around the world can come together in a beautiful park, in a shared experience, to be entertained, celebrate life, and laugh together - every single day of the year.”

Technological sophistication is the hallmark of shows produced by Miziker Entertainment. In 2018, the Journey of Lights Parade at Chimelong Ocean Kingdom - created and developed by Miziker to realize Chimelong’s vision - was honored with a TEA Thea Award for Outstanding Achievement (Live Show). This nighttime cavalcade represented a leap forward in the evolution of mobile spectaculars with the first parade-wide lighting event made possible by powerful new show control systems and over one million color-changing LEDs. By offering precise control over park-wide show lighting, audio, and special effects, the project suggests a new precedent for live entertainment events that can be applied in myriad ways and that would have been impossible only a few years ago. Based on the expressions of interest Miziker has received, “parade wide” may well soon become “resort-wide.”

Puppetry

Rooted in the traditions of worldwide Carnival celebrations and drawing on their decades of live event design experience, Miziker Entertainment has added oversized, kinetic puppetry to their suite of services. In 2017, the company introduced Mas Fiesta, a business unit that designs and fabricates kinetic puppets and costumes for parades and live entertainment.

“We recognized a lack of resources in the market for fabricating these elaborate pieces,” said Ryan, “so we decided to develop something that would fill that gap – something we could call our own. We brought our experience to bear and began to design and build them ourselves.”



Journey of Lights Parade at Chimelong Ocean Kingdom park

Mas Fiesta puppetry embraces a sculptural sensibility and whimsical kineticism. For Princess Cruises, as an example, Miziker designed 12-foot-tall Pájaros Locos, or “Crazy Bird” puppets to delight cruise passengers at a scale appropriate to the on-deck party scene.

Miziker’s approach to puppetry springs from the low-tech traditions of the craft while making use of high-tech solutions to advance it. Mas Fiesta puppets are constructed of lightweight carbon fiber, laser-cut fabric, and fiber-glass sculpture which provide complexity, durability and performance versatility for each figure. The result is greater unity between costume and performer.

“With large-scale costuming, character-specific movement is essential,” said Sean Chung, VP Development and a key member of the Miziker and Mas Fiesta teams. “Mas Fiesta puppets combine sculptural aesthetics with complex, human-powered animation, to deliver an eye-popping illusion of life.”

Mas Fiesta has a forerunner in the early days of Miziker Entertainment. Ron Miziker collaborated with Peter Minshall to produce the opening ceremonies of the 1987 Pan-American Games. Later, Ron tapped Michael Curry to design Epcot’s

Tapestry of Nations parade costumes, which featured oversized, articulated puppets powered by performers.

Patents

Another way Miziker Entertainment is adapting and advancing its brand offerings is through the creation and patenting of unique technology products for applications in themed entertainment, based on their understanding of industry needs. “People come to us for technological solutions,” said Ryan, “and we’re able to apply our creativity and show design expertise along with the new technologies we develop.”

Miziker’s first patented product, known as “NOMADS” (New Omnibus Media And Digital Signage), introduces a modular approach for a versatile, mobile entertainment system that can be used for parade floats, digital signage, and special venue entertainment units.

“NOMADS is a revolutionary platform for product and event promotion at live events, for storytelling along parade routes, and for producing unforgettable mobile events, dance parties, and shows,” said Sean. “Utilizing Videro’s unique digital ecosystem, NOMADS provides networked control over every aspect of show action including lights, video, sound, interactivity,



messaging, and special effects, all packaged into a system that is easy to deploy and use in any type of venue.”

More details about NOMADS will be revealed in Orlando this November at IAAPA Expo 2019, at the Panasonic booth, #857. Panasonic will celebrate Miziker Entertainment’s 35th anniversary at the booth on Thursday, November 21, 4:00-6:00 p.m.

Production

Another key ingredient in the Miziker business mix is special venue film production. When Charlotte Huggins partnered with the company several years ago, she brought with her two dozen years of film production mastery (in addition to theme park experience) that has broadened the portfolio of services. Charlotte supervises Miziker’s live show and media productions, offering her own blend of filmmaking and attractions expertise.

Charlotte’s pioneering work in film production includes a wide variety of theatrical releases, 3D live action and animated features and special venue cinema. Her work includes commercial features such as the “Journey to the Center of the Earth” series and the Grammy-nominated “Metallica Through the Never,” as well as giant screen and ride films for the likes of Disney, de Efteling, Aquarium of the Pacific, IMAX, and OCT.

For Charlotte, producing special venue cinema brings special benefits such as longevity. “Theatrical releases reach people in a powerful but short window of time,” said Charlotte. “But special venue and attraction films enjoy a long exhibition, usually in a purpose-built theater, often impacting people across generations.”

Adam Ellison, a feature film producer who worked with Charlotte on “Journey 2” and the Metallica film, experienced her passion for themed entertainment first-hand - so much so that he was soon drawn to join the Miziker team as a project director. “Before I met Charlotte, I couldn’t have imagined myself doing anything other than film,” said Adam. “But now I’m working with artists who are so passionate, who work with such an incredible level of freedom to create, it brings me real joy. She showed real perseverance in opening my eyes and convincing me to come over to this world. I am very thankful that she did.”

Charlotte released her 11th giant screen movie at the Giant Screen Cinema Association annual conference in September 2019. “Back From the Brink: Saved From Extinction” is a documentary directed by award-winning nature filmmaker Sean Casey, with Jen Casey as Charlotte’s producing partner, and executive produced by the Russo Brothers and the Huayi Brothers. The film, sponsored by The Nature Conservancy, follows several endangered species and the human initiatives that have allowed them to return from near extinction.

Pacific Rim

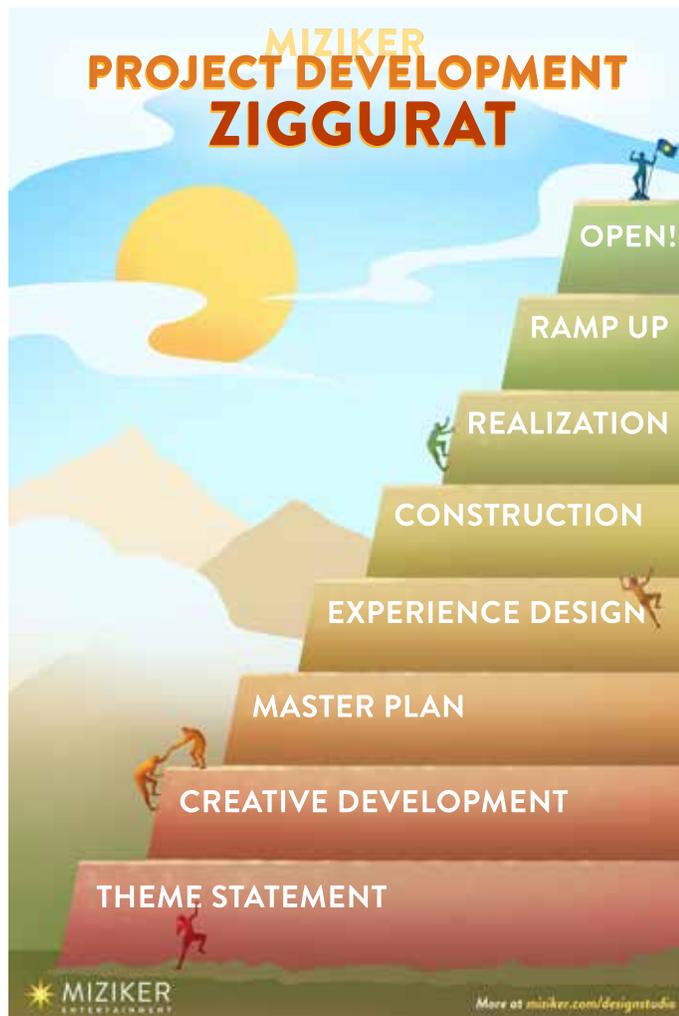
An exciting area of strategic growth for Miziker is in the Pacific Rim. They have shepherded projects in Japan, China, Korea, Singapore, and Malaysia. Each country and region presents richly different cultures and projects, but they have in common, as Ryan said, “a remarkable hunger for original ideas and live entertainment. Every trip to Asia is worth it for the opportunity to create brand new concepts for an audience that yearns for entertainment all their own.”

Miziker has formed invaluable relationships throughout the region. Their close partnership with Chimelong Group, a leading theme park developer in China, has given rise to many opportunities to create new experiences for Chinese theme park guests. “Chimelong Group has made live shows an important part of their guest experience,” said Sean. “And we believe it is absolutely a huge factor in their continued growth at both their theme parks and their waterpark.”

Miziker China is the company’s satellite office located in Guangzhou. Lei Zhenchuan is Miziker’s full-time project coordinator on-site in China. With his background as a filmmaker and producer, both in the US and China, Lei is indispensable in developing a variety of international projects for the company.

People

With 35 years behind them, and a passion to chase down new opportunities, Miziker Entertainment’s core strength continues to be the people that make up their team.





Miziker Entertainment's team works collaboratively to design and create fantastic parades, experiences and attractions.

“Our number one resource and joy as a company is our people,” said Charlotte. “Themed entertainment is on the rise as theme park attendance worldwide continues to grow. We are proud to have a company of artists, producers, technicians, composers, lighting and sound experts; all of them bring an expertise for creating unique and memorable guest experiences.”

“Everyone has a voice here at Miziker,” said Sophia Chan, the company’s newest Associate Art Director. “There is an openness and enthusiasm for getting the details right. We all want to create projects that will spark joy.”

As the company moves into its 36th year, Ryan is confident that his team of creative and technical pioneers will meet every challenge and exceed expectations. “When Ron started out on his own 35 years ago,” Ryan reflected, “his vision was to create

the most spectacular live entertainment studio in the world. Our incredibly talented team has taken hold of that vision, infused it with expertise and passion, and made it their own.” •••



Freddy Martin (freddy@themedattraction.com) is a writer, storyteller, and independent consultant. He began his theme park voyage as a skipper on the Jungle Cruise at Disneyland. Freddy co-hosts the Themed Attraction Podcast with Mel McGowan of Storyland Studios and is a regular contributor to InPark as well as ThemedAttraction.com. He also blogs at FreddyMartin.net.

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Dark rides

Compelling, family friendly and simpler to adopt than ever before

by Benoit Cornet, Alterface

It's hard to imagine a theme park without roller coasters. And sometimes, I wish I were selling roller coasters instead of dark rides. A roller coaster is highly visible – a structural centerpiece or icon. You can't miss it when you visit the park. The screams of the riders are promoting it. It's more thrill-driven than story-driven, so while the engineering can be tricky, as a themed attraction it is a fairly simple, straightforward project.

The demographics of a coaster are limited, however. If your park is not primarily focused on teenagers you may have to cope with split families, moms and young kids on one side, dads and the grown-ups on the other side. (Of course, I am generalizing – there are people well out of their teens who revel in a good roller coaster thrill ride, and I am one of them.)

Multi-generational

A park serving multi-generational audiences needs attractions that unite families. It needs dark rides. A dark ride is second to none in providing an immersive experience that is tailored to the park and can be enjoyed by all generations of a family.

For the record, I define “dark ride” as an immersive, themed storytelling experience with a vehicle traveling through a built and/or multimedia environment. A modern dark ride generally includes projection, theatrical lighting and audio, special effects, environmental effects, show control, physical props and some kind of interactivity or gamification. There is usually a pre-show, main-show, post-show structure. The story may unfold in linear or non-linear fashion; the latest trend is for non-linear formats that encourage repeat visits for a different experience each time. A dark ride gets its thrills from the quality of the storytelling experience and guest engagement – not from G-forces, so it's open to a much wider demographic than a roller coaster. Multiple generations and age groups can ride and enjoy the experience together.

There are many successful examples in Asia, the Middle East and the US. Some visionary European operators have also recently added dark rides to their mix of attractions. I'm proud that Alterface serves international markets and that we have contributed to many of these rides.

However, in my opinion, Europe is for the most part lagging behind the others. I believe it is because compared to a roller coaster, creating a dark ride is a complex undertaking that naturally raises concerns in a market sector made up mostly of regional operators with limited budgets. However, the rewards



The Basilisk dark ride at Legandia Park Photo courtesy of Alterface

outweigh the risks and the process itself has become much simpler than it was a few years ago.

Multiple disciplines

To conceive and produce a compelling dark ride is a multi-disciplinary endeavor. The ride system itself only accounts for a third of the effort – media, theming, light & sound, storytelling and show control are all critical elements of the mix.

Many of the breakthrough dark rides that helped revitalize the genre in recent years were created by gathering talents across different expert parties – a process that can achieve great results and deep customization, but which carries significant financial, creative and operational risks. Many operators – especially smaller, regional operators working within limited budgets and footprints - welcome something closer to “one-stop shopping” Fortunately, today theming companies, master planners or technology producers have been expanding their reach to cover the entire spectrum of developing such a ride, with customizable packages. No need to shop around anymore, just pick a ride you think will fit your audience, ask the developer to tailor it for your needs - and enjoy the process. It is really that simple; if you aren't sure where to start your search for the perfect dark ride partner, look into those rides that have earned industry awards.

Branding

The second area of concern is the perceived need for an IP (intellectual property) to drive an evergreen attraction. Traditionally, parks have been striving to couple their ride to a well-known and global brand. The IP owner has also identified this opportunity. Lately quite a few brands have actively begun marketing to the themed entertainment community to find more platforms for licensing. When considering a brand, look first at what the park wants to achieve and see if the leverage provided by the IP will be worth the investment.

In terms of building a guest following, a dark ride can be expected to have a slower trajectory than a roller coaster and

word-of-mouth plays a big role in achieving success. But once it has found its following, a successful dark ride can enjoy a very long lifespan. Such a ride can take on a life and identity above and beyond the popularity of any IP on which it was initially based.

While IP can help popularize a ride, the converse is also true. The acknowledgment of the role of dark rides in the development of a strong IP can be found in the largest parks, with rides such as Disney's Pirates of the Caribbean. Alterface's customizable dark ride platform, Popcorn Revenge, can be themed to a specific IP; the ride is designed to facilitate the rider making an emotional connection with the IP, contributing to build the brand further. This approach to ride development supports generations of ancillary income and merchandising opportunities.

Coaster envy or dark ride envy?

Ultimately, while occasionally longing for the simplicity of roller coasters, I am more than content to be the purveyor of innovative dark rides, complex though they may be. We look with satisfaction at successful Alterface projects such as Maus au Chocolat - now in its eighth season at Phantasialand (Germany), recipient of a European Star Award in 2017 and still going strong - or the more than 25 "Kingdom Quest" rides featured in LEGO Discovery Centers around the world - just to name two examples out of a long list. A well-designed dark ride has nothing to envy in the screams of coaster riders.

We are confident that interest in dark rides will continue to increase on a global level, and that the European market in particular will accelerate its development in this direction. The benefits of dark rides are by now largely recognized as weather-proof, repeat attractions with high throughput, entertaining young, old and in-between.

In fact, I am pretty sure that the day is nearing where some people in the roller coaster business will wish they were selling dark rides. •••



As Founder and CEO of Alterface, Benoit Cornet has been pioneering innovative concepts that have significantly impacted the themed entertainment industry. Since 1999, the company introduced the interactive theatre concept with Desperados, bolstered interactive dark rides with multiple Legoland Discovery Centres and Justice League attractions, and many more across the globe. The company constantly innovates in new technologies, with its latest non-linear Erratic Ride completely rewriting all the rules. The new proprietary Popcorn IP offers regional family parks a unique and fun IP in an affordable manner. The many positive reviews and industry awards received over the past years for its rides Basilisk in Poland, Popcorn Revenge in Belgium and Justice League in the US, acknowledge the company's cutting-edge technology and creativity.



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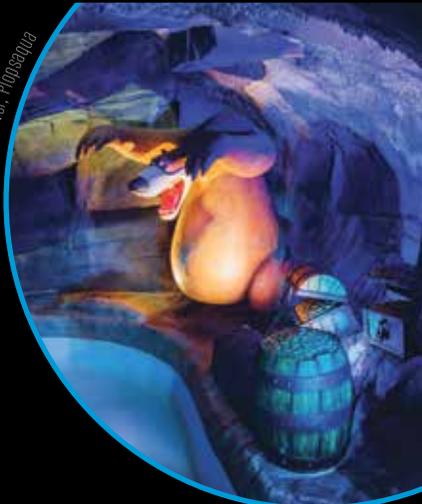
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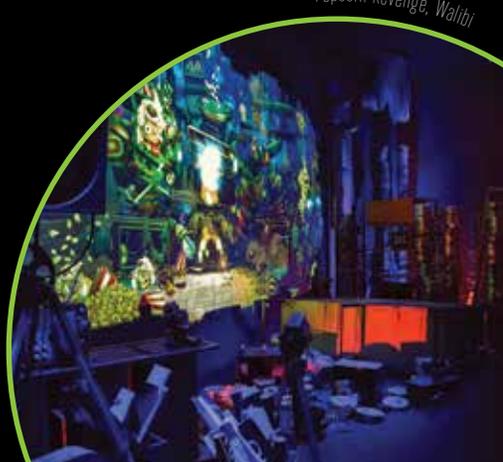
Sycobean, Holiday Park



Wild River, Plopsaqua



Phantasialand Castle, Phantasialand



Popcorn Revenge, Walibi



Baaylisrek, Legoland

Getting to know ISAAC

What Smart Monkeys' state-of-the-art system portal can do for parks and attractions

by Judith Rubin

When the Tom Bradley International Terminal opened at LAX in 2013 and was honored by the Themed Entertainment Association in 2016 with a TEA Thea Award (as an Outstanding Environmental Media Experience) it brought wider exposure and recognition in the attractions industry to the system known as ISAAC. Short for "Integrated Scheduling and Automation Control," ISAAC is the state-of-the-art, supervisory system from Smart Monkeys Inc. that manages and updates the wide variety of media and content streams running on the Tom Bradley Terminal's many displays.

Operators, technical integrators and system designers saw what it could do, and ISAAC was recently adopted as the facility-wide content management platform for two new theme parks in the Middle East, as well as a high-end parade system for a major operator in North America. More such applications are anticipated in the near future as attractions tech specialists become conversant with ISAAC and the industry continues to evolve toward IT type infrastructure models and enterprise systems.

Redefining the field

Theme parks and attractions are already making use of enterprise systems, data centers and networks for ticketing, data collection, security, food service, hospitality, wristbands. Stephan Villet, Managing Partner at Smart Monkeys, presents ISAAC as a logical step for running attractions as well.

"In a nutshell, ISAAC is a scalable platform that relies on IT technology, namely virtualization," says Villet. "We create systems, mainly clusters, that are sized specifically for hosting certain applications. For example, a theme park today may have dozens of show control systems to run its various shows, attractions and parades. ISAAC would host all those systems using a series of networked PCs loaded with specific software - a familiar model in our industry. The difference is that the PCs aren't physical machines, they exist as virtual machines - as software configurations within a secure, on-premises data center."

This is an industry that's always in a technology revolution, and right now it's happening front-of-house and back-of-house. In visitor attractions, the trend is toward guest experiences that are



ISAAC (Integrated Scheduling and Automation Control) received wide exposure in the attractions industry when the Tom Bradley International Terminal at LAX was honored with a TEA Thea Award. ISAAC supervises the multiple dynamic display systems in the terminal. Photo courtesy LAX.

media- and effects-laden, interactive, gamified and immersive. The themed, immersive environment contains projectors, screens, speakers, ride vehicles, lighting fixtures and other devices. At the operations end are the systems of hardware and software driving those attractions.

A portal system such as ISAAC has the power to streamline, automate and virtualize many aspects of show control and content management, but it doesn't necessarily have to stop there. It can (and in the field, currently does) also extend to supervising such functions as lighting control, building management, irrigation systems, parking management systems, security systems and more.

Concerning the Tom Bradley Terminal, the TEA Thea Awards Committee wrote in 2016: "The base idea is not new, but the Integrated Environment Media System at LAX has been executed with such creative and technical excellence that it has redefined the field and is fast becoming a widely-admired and replicated achievement. It has also improved the airport visitor experience: Studies show that travelers tend to arrive early at the terminal to enjoy the media."

You have already met ISAAC

The Smart Monkeys client list is an intriguing mix of high-profile tech names and attractions industry standouts, such as MGM, the Bill & Melinda Gates Foundation, Google, Universal Studios and The Shed.

Though ISAAC may be relatively new in attractions, as noted by the Thea Committee the base concept is not new. Similar



ISAAC and virtualization combine to shrink, secure and centralize the equipment room. *Photo courtesy of Smart Monkeys*



Stephan Villet, Managing Partner at Smart Monkeys, which counts among its clients MGM, the Bill & Melinda Gates Foundation, Google and Universal Studios.

platforms have long been adopted in other sectors, and we are constant users of them in our daily lives.

ISAAC works within the model of a data center – essentially, a sophisticated version of what in the attractions industry is known as the equipment room or rack room. The data center is a central facility where the data (content and control software) are stored and the critical gear is housed. Because of virtualization and the capabilities of the system and network, it can dramatically reduce the amount of real estate needed to contain it.

Data centers fall into two basic categories. Internet-facing data centers are usually browser-based; they power the data streams we consume in our daily lives and are open to many users. The type of data center that a system integrator or technical designer would configure for a park or attraction – where an ISAAC system would reside - is an enterprise or internal data center, tied to operations and customized to a specific, restricted user base with appropriate layers of security.

Villet explains, "The system includes a web app that works as a portal for users. Any authorized and credentialed user anywhere in the park can connect to the ISAAC system and schedule anything in any part of any system. A global lock system and alert system are set up to communicate by email when any type of problem occurs. All the activity is tracked so the operator

Look who's talking about ISAAC



Chris Conte, Electrosonic: "ISAAC supports the creation of a better dynamic experience."



Eric Cantrell, Medialon: "ISAAC makes it possible to consolidate multiple machines into a small server."



Scott Arnold, TechFulcrum: "It's time to grab this tool and see what we can do with it."

can decide who has access to what part. The system provides the ability to directly access - from anywhere and at any time via a web browser - machines for tasks such as programming, maintenance or show modification. This access is extremely secure and is based on individual user credentials."

To learn how ISAAC is being received in the attractions tech design community and how it fits into the big picture of attractions in terms of design, installation, operations, maintenance and guest experience, we spoke to several top technical specialists in themed entertainment who are familiar with the system.

Electrosonic and ISAAC: Guest experience

"This is becoming a standard for us in designing theme parks instead of multiple boxes," says Chris Conte, VP New Business Development, Electrosonic Inc. which specified ISAAC for a major, IP-branded theme park that opened recently in Abu Dhabi.

"Electrosonic was the first integrator in the attractions industry to embrace the platform - the very first one to really see it as the future for theme parks," says Villet.

"Electrosonic is all about guest experience," says Conte. "Using all the tools in the toolkit, we deliver tech solutions that support the guest experience, and ISAAC is a very powerful tool. We work often with creative producers, and because ISAAC allows access to all media assets available on a project, it supports the creation of a better dynamic experience. It consolidates tasks and elements that have traditionally been represented with a variety of different boxes. Media producers want a playback video; they want the ability to collect assets from which the guest can create memorable experiences or even a takeaway (such as a mandala) that can be stored and accessed later. As a virtual environment, ISAAC can access all that content, manage and deliver it, wherever it is stored."

Seeing further into ISAAC's potential, Conte says, "This kind of virtual environment provides not only access to data but gives us

a platform for a content management system (CMS) – something for which there is an immediate need as it has become part of content generation. Content for today's immersive and interactive attraction goes beyond content for playback and storage to include web-based experiences, mobile apps and user-generated content. The industry needs it today, the guests demand it today - and it has to happen on the spot – just as it happens on the spot for all of us when we use our devices to communicate, access, capture and share. We need to be able to collect assets of guest experience, track their experience through the park, and have access to that data at the venue and afterwards online. ISAAC's platform enables all of that."

Medialon and ISAAC: Storytelling

Where there's ISAAC, there is often Medialon, an industry leader in show control. ISAAC installations running Medialon software include the Tom Bradley Terminal, the George W. Bush Library, a massive LED video wall install at the MGM Macau and one or two theme park parades that can't be specifically named. "ISAAC makes it possible to consolidate multiple machines into a small server; you can manage huge amounts of content from a single schedule and playlist," says Eric Cantrell, VP Business Operations, Medialon Ltd. "The effect is almost like you're in Times Square. It looks like each display is doing its own thing but at any given moment, there could be one story on all of it."

Cantrell emphasizes the dual benefits of storytelling support and security in such a system and points out how they can begin to blend and enhance the guest experience. "The story is the reason people buy the ticket to get in the door, but there are a lot of other things that have to happen too. You have to have a parking lot and a tram and security - they don't have much to do with storytelling, but if you tweak the perspective of the story, they could. This is very important today, because stories now reach far beyond the ones being told to the guest in the three-minute attraction – the stories are the ones guests are telling their friends and followers on social media."

Cantrell continues, "There's an expectation that everything we do will have some element of personalization. There is a massive



At The Shed in New York City, ISAAC served as the Media SDVoE distribution headend. (SDVoE = Software Defined Video over Ethernet.) Photo courtesy of Brett Beyer.

amount of data people are generating. With a modern system you can amass data points and make decisions based on them, on the fly. The ability to modify storytelling subtly is where show control can be useful: creating alternate versions of the same show on the fly, based on pre-produced content. The operator can now take input from all over the park – can use immediate feedback to take personalization to the next level. A presentation becomes an interactive experience. The park becomes a real-world environment that responds to the guest, and ISAAC provides that data center so you can really manage all of this from an easy platform. All those people are building the content that the show control can piece together to make the presentation of the moment.”

This should sound familiar – it’s the same kind of customization we’re accustomed to as we travel the Internet on our web browsers, but introduced into real-world, three-dimensional settings.

In terms of maintenance function, Cantrell likens ISAAC to “a spare tire on a car but you have the ability to put it on while you are driving.” He says, “Instead of going with a distributed systems rack full of computers, instead of an equipment room in every attraction, you’d have a bigger equipment room but only one per land, and everything spread out via fiber extension or another network of sufficient bandwidth, reducing the amount of space required in an individual attraction and enabling spares to fill in for broken or nonfunctioning equipment in any attraction in that area.”

ISAAC in Orlando

Smart Monkeys recently added Joy Burke in the new position of Senior Manager of Special Projects, driving business development in the Orlando area, from her base in the company’s new Orlando office. “We’re committed to the themed entertainment space and that’s why we’ve opened an Orlando office to complement our Miami headquarters,” says Stephan Villet. “With her strong engineering and business background and many years’ experience in the industry, Joy will open doors for Smart Monkeys and ISAAC, facilitating better projects with better systems - and awesome guest experiences.”



“I’m excited to be working with the team that’s using some of the most cutting-edge programming languages and technologies in the continuing development of ISAAC,” says Burke. “I’ll be using my experience in product engineering to take the lead in collaborating with ISAAC’s third-party partners and expand our network of vendors.”

Burke comes to Smart Monkeys after 16 years with Alcorn McBride, where her most recent title was Senior Software Engineering Manager. Burke earned her MS in Industrial and Systems Engineering from the University of Florida and is pursuing her MBA at the school’s Warrington College of Business. She was awarded PE certification by the Florida Board of Professional Engineers in 2017 and holds AVIXA CTS status. She sits on the board of the Society of Women Engineers of Central Florida.

Smart Monkeys Inc. Orlando is located at 6965 Piazza Grande Ave, Suite #107, Orlando FL 32835. www.smart-monkeys.com •





Smart Monkeys' ISAAC technology is part of the massive digital media array, Spectacle, at MGM COTAI, a US \$3.4 billion resort that opened in Macau in early 2018. Also on the project were Obscura Digital, Electrosonic, VER and LAB at Rockwell Group. *Photo courtesy of MGM.*

TechFulcrum and ISAAC – a shift in thinking

“We’ve been watching ISAAC for a long time,” says Scott Arnold, CEO at TechFulcrum, a system designer with an extensive theme park portfolio including numerous projects for SeaWorld. “We strive to choose the most appropriate solution for every project. I’m working on a design right now that would utilize ISAAC as home for the master control of a theme park, and to do the scheduling for certain elements of that park.”

Arnold echoes others in pointing out that the technology is not new. “It is a shift in thinking that is the challenging part. It can be challenging to explain why it’s beneficial to take a collection of tools from the IT world and customize and combine them in a manner that serves themed entertainment, because people are used to having the physical box. For some, virtualization is the scary part. But there are aspects of it that are quite exciting, such as the centralization of systems. We’ve run the numbers and on a larger project such as a theme park, it is more cost effective to centralize a portion of the hardware and processing. It also

allows for serviceability and maintenance options to be simplified over a traditional setup while avoiding potentially undesired access.”

Digging into future possibilities, Arnold says, “As technology has marched on over the past 20 years, the connectivity of devices we use in entertainment has been converging. We started connecting all our audio and video over ethernet, pulling them all into same kind of networked infrastructure. And every day, more and more things become part of the network we didn’t anticipate. What ISAAC does is communicate with all those things and give tools to help manage them. Jumping to the IT world, this is already being done on a daily basis and a global scale, for instance when you are shopping online. There is always going to be a physical box somewhere - we have to house things somewhere – but things have gotten better, smaller and faster over time; better able to handle load and redundancy. Now it’s time to grab that tool that has been developed and see what we can do with it on our terms.” •••



MEET BUGS & DAFFY
ABU DHABI 2018



CASSIE THE ROBOT
@ SATE
12-5-2018



DARK SEA QUEEN
PARADE PUPPET 2010



CHUCK W/ PUPPET CREATION
1979



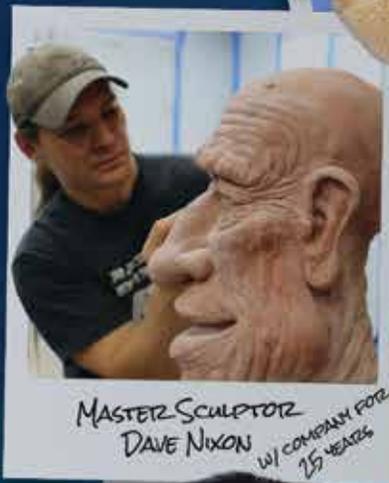
SESAME STREET'S
BIG BIRD
2002



SOPIA
2014



ANIMAX DESIGNS UNIVERS
INNOVATIONS LAB
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25 YEARS

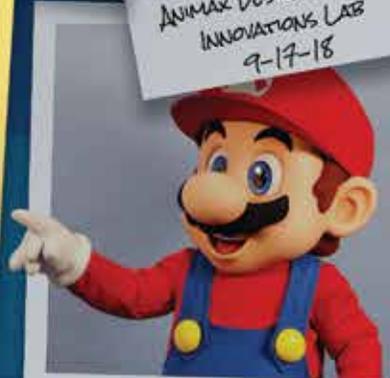


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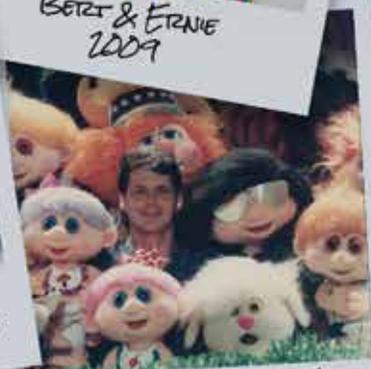
2019
ORC HEAD PORTFOLIO SCULPT



BABY LOONEY TUNES
PUPPETS
1993



EMPIRE STATE BUILDING
8TH WONDER OF THE WORLD
2019



CHUCK ON SET OF TROLLS
1993



SEBASTIAN PUPPET 2004



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17 YEARS

Painting the town

Better-than-ever, large-scale projection enlivens festivals and boosts tourism

by Bryan Boehme, Christie

Around the world, a growing number of festivals and attractions are bringing spectacular shared experiences to cities and towns that want to celebrate art and architecture in the biggest and brightest ways – using the latest projection mapping and large-scale projection tools.

These techniques aren't new in themselves – projection mapping has been deployed in academia and themed attractions for decades – but the adoption of projection technology in special events, sports venues, public artworks and festivals is more recent. And these newer applications are transforming the way we use the technology; creating bolder and more daring installations that offer nothing short of a 'wow' factor.

Projectors have become lighter and brighter, and some now offer an expanded color gamut that can more fully realize an artist's vision – or an IP holder's requirements - in reproducing images or content. Coupled with powerful content management tools including processing, automated image warping and blending and show control, it's no surprise that large-scale projections and projection mapping are becoming more widely adopted as they spark interest and enthusiasm among the creative and technical community.

There's a roster of festivals and installations around the world that are expanding the idea of digital artwork, serving as platforms for something bigger, more diverse and more spectacular - and in some instances, with audience participation. Canvases include buildings, landmarks, sculptures and even water features – non-traditional surfaces that help tell a story and create an experience that can't be replicated elsewhere.

Graffiti in Florida

In the case of Digital Graffiti, an annual digital art festival in Alys Beach, Florida, artists from all over the world take up residence in the small town for a weekend each spring, displaying a selection of immersive, projection-based art on the distinctive white architecture of the town. Named one of the "24 Unconventional Art Destinations Around the World" by National Geographic, Digital Graffiti brings guests and artists together to celebrate and showcase a selection of curated digital art that is unique to the festival.

Digital Graffiti's residency artists brought interactive elements to their installations for 2019, with processing and projection provided by Christie. Artist Tamiko Thiel connected iPads to Christie projectors to show an augmented reality installation. Says Thiel, "For quite a while I have wanted to combine live augmented reality with real-time large projections, so that the



Digital Graffiti

Photo courtesy of Tamiko Thiel



GLOW

Photo ©Bart van Overbeeke

entire audience can see the world augmented through our smartphone app."

"Digital Graffiti at Alys Beach represents a rare and captivating cultural experience. Christie has helped us refine this event further through their discipline in larger, more technical events and their deep expertise in the tools of the trade. Our residency artists reflect this in attaining results they had never imagined, and generating a greater sense of community," says Brett Phares, curator, Digital Graffiti.

GLOWing in Eindhoven

In The Netherlands, Eindhoven's GLOW festival celebrates the city's history as the City of Light with its annual festival. Started in 2006 with 45,000 visitors, it attracted over 750,000 visitors from around the world in 2018.

For eight days in November the Eindhoven city center is transformed into a celebration of light. For 2018, a projection mapping installation by Confluence that lit up the Catharinakerk,

a neo-gothic church in the city center, used a total of 12 Christie HS Series laser projectors, provided by AV distributor Sahara Benelux. The original project – created by the Portuguese artists’ studio Ocubo – is inspired by the confluence of rivers and streams in Holland. The kinetic art also saw virtual dancers guide the viewer through the film, with flourishes of color emphasizing the church’s stunning architecture in an array of eye-catching geometric combinations.

Light in Sydney

Vivid Sydney is another event to which tourists and artists flock annually. It brings together light artists, music makers and brilliant minds, celebrating Sydney as a creative hub of the Asia-Pacific with large-scale light installations and projections, free family events, cutting-edge music performances and thought-provoking ideas talks, workshops and conferences.

The festival has been instrumental in driving tourism to Sydney and stimulating the city’s visitor economy in winter, traditionally a quieter period. In 2019, Vivid Sydney attracted over 2 million in attendance and contributed millions of dollars to the New South Wales economy.

During Vivid Sydney 2018, Wulugul Walk in Sydney’s Barangaroo precinct was transformed into a magical bushland, brought to life with dramatic lighting and mesmerizing puppetry. Known as The Liminal Hour, the multimedia experience was designed by the artists at Mandylights, Erth Visual & Physical Inc., Jacob Nash and James Brown. The show featured a walking, 20-foot high, illuminated puppet named Marri Dyin – which means “Great Woman” in the Eora language.

“The Liminal Hour is quite unique for Vivid Sydney as it’s more than just an installation piece that can be viewed, it’s also an experience to be a part of,” said Clint Dulieu, Technical Designer, Mandylights. “The precinct combines both the Marri Dyin puppet wandering the site and individual intimate moments between the puppet and spectators alike. In addition, we have



The Liminal Hour
Photo by Destination NSW



Bregenz Festspiele
Photo ©BregenzFestspiele - Karl Forster

several moments which incorporate the precinct’s tower lighting and audio features with integrated elements within the puppet to create a large-format spectacle.”

The project was commissioned by the Barangaroo Delivery Authority to showcase a unique creative program to share the stories of the Barangaroo precinct and celebrate the femininity of the site’s namesake. Mandylights was responsible for the lighting design of Marri Dyin, including 350 internal LED lights that were wirelessly controlled and triggered from both an onsite iPad and an external lighting control system.

The backdrop for the show included 48 custom-made moving lights atop themed truss towers that dramatically illuminated the site in a series of stunning sequences. The company also supplied audio design, show control and a unique control shipping container fully outfitted for onsite control. Among the technologies used for the show delivery was Christie Pandoras Box Widget Designer, an interactive application builder that provides an advanced control surface creation framework for customized show control.

Praising the teams for a job well done, a Vivid Sydney official spoke of The Liminal Hour as “the natural and collaborative way everybody came together to create this contemporary spirit,” noting that the gigantic Marri Dyin puppet aptly embodied the physicality and the philosophy of the land she inhabits.

Operatic spectacle at Bregenz

While festivals such as Digital Graffiti, GLOW and Vivid Sydney are dedicated to celebrating and promoting digital art and projection mapping, other festivals around the world are embracing projection as a method of enhancing the audience experience.

Take the annual Bregenz Festival, which occurs in July and August in Bregenz, Austria on what is billed as the largest lake stage in the world. The “Opera on the Lake” has been attracting aficionados of culture and opera to Bregenz in the summer months since 1946.



Art on the Mart
Photo by Joshy Brott Obscura

Pioneering opera productions with breathtaking stage designs and innovative use of state-of-the-art technologies have made the Bregenz Festival known far beyond the national borders over the years. For a premiere of Georges Bizet’s “Carmen,” produced by Kaspar Holten, former Director of Opera at the Royal Opera House in London, two colossal female arms rise from the water and throw a set of playing cards into the air.

Each one of the cards, measuring around 4x7 meters, acts as an individual projection screen. In addition, the images had to remain clear even over the huge 60-meter distance between the lighting tower and the lake stage. This called for 30,000 ANSI lumens delivered by the Christie Boxer 4K30.

Big, bold experience in Chicago

Projection mapping and digital art offer the chance to fill massive canvases in ways that create truly unique experiences that can entice spectators out of their homes to be entertained. And when considering tourism and urban renewal, projection mapping as a public work of art makes a statement.

One of the largest permanent projection mapping displays in the world is on Chicago’s theMART. In a city known for its public works of art – from Cloud Gate (aka “The Bean”) to Chicago Picasso - creating a memorable installation that would also contribute to the ongoing revitalization of the Chicago Riverwalk called for something bold.

The owners of theMART, Vornado Realty Trust, approached Obscura Digital, known for creating one-of-a-kind immersive experiences, to create a projection mapping display onto what was once the largest building in the world with 4 million square feet of floor space and its own zip code. Titled “Art on theMART,” Obscura used 34 Christie 4K projectors to beam over 1 million lumens onto the 2.5-acre south façade of the iconic building. The show runs five nights a week, with a 30-year

commitment from the city. Local and international works are on display and freely accessible as public art with no branding.

The Obscura team created a digital 3D model of the building from a laser scan to account for the architectural features of theMART and to determine the projector configuration. Obscura also developed a content management solution to provide show control, and to allow theMART curatorial team to easily upload and render the projection mapping content. This included masking the windows with special software so the projectors wouldn’t shine light into the building interior.

“TheMART and Vornado Realty Trust are thrilled with the success of the inauguration of Art on TheMART, a gift to the people of Chicago, who widely embraced this monumental new platform for public art,” said Art on theMART Executive Director Cynthia Noble. “We are proud of the works by the initial risk-taking artists—Diana Thater, Zheng Chongbin, Jason Salavon and Jan Tichy—and look forward to welcoming a range of perspectives over the next 30 years.”

Empowering creative storytelling

Connecting with audiences is no easy feat. Competition for people’s time and attention is fierce and creating a spectacle that draws audiences and commands attention is a formidable creative challenge. Projection mapping creates compelling visuals that help to immerse audiences, tell stories, and create amazing shared experiences. With technology that has become more intuitive, easier and less time consuming to use, projection mapping and large-scale digital art have become more accessible. Transforming any surface of almost any size is now just limited by the imagination. •••



Bryan Boehme is Executive Director of Global Sales & Business Development, Entertainment, Christie. Visit www.christiedigital.com.



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ISE 2020

Mike Blackman talks about the growth of Integrated Systems Europe and highlights for the February 2020 show

interview by Martin Palicki

The annual Integrated Systems Europe (ISE) trade show for AV and systems integration will take place February 11-14, 2020 at RAI Amsterdam. ISE, which has become a key event for members of the global attractions industry, has ballooned to some 80,923 attendees and 1,296 exhibitors in 2019. The show is outgrowing its home in Amsterdam and will relocate to Barcelona in 2021. Producer Integrated Systems Events is gearing up for what it forecasts will be the largest ISE to date since the show was founded in 2004. InPark interviewed Mike Blackman, Managing Director, Integrated Systems Events.

ISE has grown steadily and successfully over the years. How do you manage to meet everyone's needs?

Mainly, we listen to our exhibitors and attendees. We carry out detailed research after each show to find out what people liked, and what they didn't like so much. That feeds into the planning for the following year's show.

ISE has a strong focus on professional development. Why?

ISE is owned by AVIXA and CEDIA, two trade associations with a focus on professional development – so education and training have always been an important part of the show. Another priority for both associations is reaching out beyond the industry, to other stakeholders within AV projects. Establishing and awarding professional qualifications plays an important part in establishing the expertise of the industry as a whole, as well as demonstrating the competency of the individuals who work in it.

What can we expect to see on the show floor?

Although we don't have much growing space at the RAI Amsterdam, the extension to Hall 5 has been expanded, and is now permanent. Some of this extra space will host companies in the Audio and Live Events Technology Zone. This is one of six Technology Zones, which group together exhibitors with similar technologies and/or market sectors – helping our exhibitors to zero in on the solutions of most interest to them. The other Technology Zones are Digital Signage and DoOH; Education Technology; Residential; Smart Building; and Unified Communications.

We've also found some space in Hall 14 for a new Innovation Zone, which is an area dedicated to exhibitors making their ISE debut with exciting new technologies.



Mike Blackman

Across the entirety of the ISE 2020 show floor, I'm sure that cutting-edge solutions using immersive audio, AV over IP, cloud, 4K/8K technology, voice and gesture control and the latest display technologies will all be well represented.

What else can attendees expect for ISE in 2020?

Our Opening Address will be given by Duncan Wardle, former Head of Innovation and Creativity at Disney. He has some really interesting ideas about how all businesses can tap into their resources of imagination and creativity, and I'm really looking forward to hearing what he has to say. We're planning another projection mapping spectacle, following the success of these show features in previous years. And we're also working on an event where we will say farewell and thank you to Amsterdam and the RAI, and also give attendees a flavor of what to expect when we move to Barcelona in 2021.

How has ISE's visitor profile changed over the years?

Initially, our audience was almost entirely drawn from the AV channel. Increasingly, though, our exhibitors have told us that while they still want to meet with existing and prospective channel partners, they also want to engage directly with end-users. We've made a concerted effort to respond to that need – as evidenced, for instance, by our growing conference program. ISE has become as much of a 'must attend' event for end-users as it is for the AV channel.

What was behind the decision to move the event to Barcelona?

Purely and simply, we're running out of space in the RAI. Even for ISE 2020, we had to tell our exhibitors that they couldn't take a bigger stand than they had at ISE 2019. So while the RAI has been a great partner for us, and Amsterdam a great location for the show, we didn't have any choice but to find somewhere else. The Fira de Barcelona is a great choice: it's a modern, well-equipped venue with plenty of space for us to expand into – not just on the show floor, but also with plentiful side rooms for conferences, meetings and demos. And Barcelona came out top of our attendees' preferred cities for hotels and restaurants.

We will be sad to leave Amsterdam after ISE 2020, but Barcelona will provide us with what we need to deliver a show that meets our exhibitors' and our attendees' needs for years to come. •••

“DO
IT
FOR
THE
GRAM*...”



* That's Instagram for all of us over 40!

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Cowabunga Beach at Water World

Waves of fun

Innovative technology produces a new wave of water ride attractions

by Jessica Mahoney, ADG

The continued evolution of the waterpark industry includes a growing variety of new water ride attractions. Park owners today have many alternatives to the traditional “add a slide” approach when it comes time to increase their offerings or update their property.

Thanks to recent developments in wave system configurations and technologies, ADG offers several new wave-based attractions – water rides created to get people off lines and into the water. These attractions are designed with several objectives in mind: Create a point of differentiation; enhance overall guest experience; significantly increase rider throughput and capacity. And, finally, deliver it all in a similar footprint to that of a slide complex.

New surf wave options

Over the past decade, sheet wave technology has taken the waterpark industry by storm with skill-based surfing simulators like the FlowRider® that allow parks to bring a real-world surfing experience to guests anywhere in the world.

Now another new option has come to market that provides an even more dramatic guest experience. The WaveOz® from ADG and the makers of FlowRider, is a unique 180-degree surf experience. With a fully inflatable surface, it is soft and easy on riders and provides the ultimate surf experience with no ocean required. Parks can choose to operate the ride with dividers for maximum capacity that allows for multiple riders at a time, or run it as a full 180 for exhibitions and skills clinics.

New boogie boarding twist

Another twist in the surfing arena is the introduction of the first Boogie Boarding Surf Ride, dubbed Breaker Beach™. Developed by ADG, these ideally sized and timed breaking waves allow guests to launch two-at-a-time from a unique center peninsula and ride a boogie board the entire length of the pool, similar to catching waves out in the ocean and riding them onto shore. As a skill-based attraction, each ride offers a different experience as guests can ride again and again to improve their technique.

Breaker Beach has been honored with the World Waterpark Association (WWA) Leading Edge Award for Innovation, and

the industry saw the first Boogie Boarding ride installed in 2016 at Water World just outside of Denver, CO. “Having a boogie boarding beach in a land-locked state has brought a unique experience to our guests, and they are loving it!” says Joann Cortez of Water World.

Next generation of wave pools

Recent advancements in wave pool geometry have led to groundbreaking twists on the shape, size and usage of the traditional wave pool. New Dual Beach/Dual Entry Wave Pools from ADG are as novel to look at as they are to experience, with a shallow depth and diamond wave pattern that allow guests to use the entire pool, traversing all the way from one end to the other. And with no “dead space,” twice the usable area, and twice the beach, capacity is virtually double that of a traditional wave pool.

“Guest response to our Twin Tides wave pool is astronomical,” says David Allacher, Aquatic Supervisor for Splash Cove in Shawnee, KS who built the first Twin Tides™ wave pool in North America designed by ADG. “They love this wave pool! They walk in, see the waves rolling and they are ready to go!”

A second Twin Tides wave pool opened this summer at the new H2OBX water park in North Carolina. “We chose this wave pool because of its uniqueness and marketability, as well as its ability to deliver us much more capacity in less space than the traditional wave pool,” says Ken Ellis, Developer and Co-Owner of H2OBX.

Lazy River no more

Utilizing the latest in wave and propulsion technology, action rivers are taking center stage and transforming the typical river ride experience into a fast, fun and thrilling attraction that will keep guests riding over and over again. Combine this with advanced theming and branded elements, and your typical park river just turned into an adventure.

The river can be expanded into a multifaceted attraction. Adding to the uniqueness and fun of the river itself are the addition of uniquely designed ports of entry and exit that utilize the river’s wave action to create a wave pool, virtually eliminating the need for any lines. ADG’s Tidal River™ ride is one such example of innovative wave geometry that utilizes one wave system to create two experiences within the same attraction. This example of the “line is the ride” concept enables guests to be immediately drawn into the ride experience with no negative downtime.

Toddler-sized waves

Even the youngest guests can now enjoy their own wave-powered water ride. Mini wave pools, specifically designed for toddlers and the younger crowd, provide a fun yet gentle wave experience for our next generation of waterpark guests. Incorporating wave action alongside the traditional spray-and-play components, these mini wave attractions cater to our youngest guests.

Not to be forgotten, however, are the accompanying adults. Attractions such as the Mini Harbour™ by ADG include



Twin Tides dual-entry wave pool at H2OBX

extras such as side walls with built-in seating areas that extend throughout the length of the attraction. Not only does this provide easier accessibility to children at multiple points throughout the attraction, the more comfortable setting encourages families to stay and play longer, thereby enhancing the overall experience and time on premises.

Innovation and the park experience

These new trends in wave-based water ride attractions all share one critical component – the capacity to expand. Each of these water rides is designed to facilitate future expansion into a complete destination experience for guests, easily augmented with ample deck space, shade areas, landscaping and rental cabanas. That’s something quite different than the area left over around the base of a slide complex – rather, it’s a family-friendly oasis that promotes longer guest stays and greater per-cap spend.

These new water rides have the potential to become home-base destination areas for families to comfortably spend their “day at the park.” And while slides are an essential component of any water park – their thrill factor cannot be denied – wave based water rides create the perfect complement and offer virtually no wait, so guests enjoy more time in the water, or relaxing by the water with food and drink - something they can’t do while waiting in a slide line. •••



WaveOz All photos courtesy of ADG

Jessica Mahoney is the Director of Marketing for Aquatic Development Group. For more information contact sales@aquaticgroup.com or visit www.aquaticgroup.com.

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Study notes

The expansion of formal themed experience education will benefit the industry

by Peter Weishar, University of Central Florida

The attractions industry has matured to the point where formal education in the design and production of themed experience will become the norm for those entering the field. This is a process already in motion, and a positive evolution for the industry.

If you are currently employed in the design and production of themed entertainment, chances are you did not major in themed experience in college. Instead, you probably have a degree in a related field such as design, theatre, architecture, engineering, writing, film, etc. A large percentage of you probably got your first job because “they were hiring.” Those of you who aspired to the theme park industry from a young age probably studied a related field and maybe worked operations as a way to gain experience.

So, if almost every creative came from another field, and the industry is thriving, why change the way we educate and recruit new talent? (It has certainly worked up to now.) The answer: we need established college degree programs in themed entertainment because creating effective narrative environments has become more complex and nuanced as rising guest expectations continue to drive more sophisticated and innovative storytelling. Themed experience has become more than a leisure pastime; it is a complex, diverse and pervasive artform; an international cultural phenomenon worthy of study. Formal and structured education in the field will become a necessity for the health and growth of the themed experience industry.

Film and digital media education: a parallel

Academia usually lags a few years behind adopting emerging creative mediums. However, once the academic world embraces a new artform, it can make profound and positive changes to the field. Two pertinent examples come to mind: Film schools and Digital Media schools. (I have extensive academic experience in both fields in the US - first as a professor of Digital Media and Computer Art in NYU Film School and later as the Dean of Film and Digital Media Performing Arts at Savannah College of Art and Design.)

The film schools in my example were originally formed as an expansion to traditional Theatre programs. Two of the pioneering US film schools, University of Southern California



Peter Weishar (third from right) with his class at University of Central Florida Courtesy of Peter Weishar

and New York University, were founded in 1929 and 1965 respectively. To place this in perspective, motion pictures were invented in 1892. The first “Hollywood” studio was established in 1919, but it was not until the late 1970s that film schools started to become popular fixtures in colleges and universities. Today there are over 1,200 film schools in the US and over 2,600 internationally. The majority of working creatives in the film industry studied at one of these schools. It is difficult to name more than a handful of famous filmmakers who did not.

Leading film schools such as USC, UCLA, AFI and NYU do more than just provide an industry with future employees. These institutions have helped develop and profoundly influence the art form. With their locations at the hubs of the American entertainment industry, they not only provided graduates access to industry, but also worked as a place to experiment and learn new methodology of expression through the film medium. It takes some time for the graduates of a program to enter an industry and eventually obtain positions of leadership where they can effect change. However, that change from the influence of film school education on the art form is undeniable.

Digital media is a much newer art form than film. However, it has followed a similar trajectory. We have gone from a handful of programs when I first started teaching 3D art at the NYU Interactive Telecommunications Program in the early 1990s to hundreds of accredited degree programs today.

Themed experience education today

In terms of college curriculum, themed experience today is where digital media was 20 years ago. There are a handful of programs across the US and overseas. Many established higher education institutions have started to offer programs in themed experience and entertainment design and production. Ten years ago, we could point to the Entertainment Technology Center at Carnegie Mellon as the single prominent university offering a program that incorporated the design of themed experiences into a specific degree program. Today, University of Central Florida, CalArts, Ringling College of Art and Design, SCAD, and the University of Arts in London all offer degree programs in this

field. Many other institutions offer lecture series, elective courses and concentrations (concentrations are a group of three or four elective classes in a particular subject). Still more institutions are in the planning stages. As with almost every emerging discipline, there is skepticism within the academic community. In all fairness, academic institutions must scrutinize new ideas and proposals to ascertain whether or not the new degree is just a trend or a unique and distinct area worthy of study.

Degree programs in themed experience and entertainment offer distinct and immediate advantages for industry. For graduates whose first choice is a career in themed entertainment, they provide a clear understanding of the field. For employers, student portfolios will be tailored to pertinent and focused work that will reduce the guesswork when hiring. There will be greater retention than hiring graduates who originally aspired to work in a different industry. There will also be reduced training costs since these students will be familiar with the tenets of the trade and workflow. At UCF we have found that themed experience degree programs are most effective at the graduate level since they accept candidates from a variety of creative disciplines and then help them focus on creating compelling environments with their existing craft skills.

Degree programs in themed experience and entertainment also present significant long-term benefits to the future and vitality of

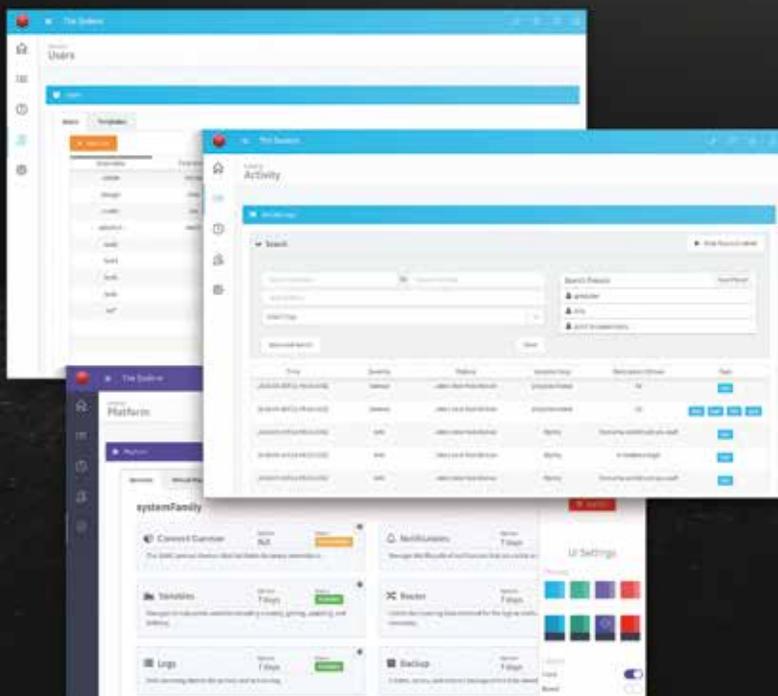
the field. Graduate students and faculty at research institutions such as UCF push the envelope to explore concepts and ideas unrestrained by accountants and tight production schedules. Universities are a place where new and “out there” ideas flourish, and experimentation is integral to the fabric of the institution. Themed experience graduates will have spent years studying the history and context of environmental narrative and then learn to apply the new knowledge so industry and academia will learn from each other. I can envision a time when there will be hundreds of institutions offering accredited programs in themed experience and entertainment. Just as in film and digital media, they will help the industry achieve even greater things. •••



Peter Weishar (peter.weishar@ucf.edu) is a Professor of Themed Experience and Program Director of the Themed Experience Graduate track at the University of Central Florida (<https://www.ucf.edu/degree/theatre-mfa/themed-experience/>). He also serves as an Associate Member of the TEA Eastern Division Board, and chairs the TEA Academic Network.

Previously, Weishar was Dean of Fine Arts at FSU and Director of the Themed Experience Institute. He also served as Dean of Entertainment Arts at SCAD where he founded the first MFA in Themed Entertainment Design. Weishar has authored three books, *Digital Space: Designing Virtual Environments*; *Blue Sky: The Art of Computer Animation*; and *CGI: The Art of the Computer Generated Image*.

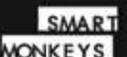
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Orlando is no small world anymore

The theme park capital is
becoming a better place
to live, work and vacation

by Rona Gindin

Metro Orlando (Florida) is a dynamic destination in the process of becoming. It is sprouting in every direction – cultural venues, job sectors, schools, college campuses, and hospitals. Much of the expansion is related to the attractions industry, which continues to lead in tourism and employment.

Entire neighborhoods spring out of green fields. Massive attractions bubble up from bare land. Shiny new tech hubs bring gizmos and gadgets to futuristic levels. All this growth provides opportunities but also challenges - among them infrastructure, transportation and affordable housing.

About those theme parks

The Theme Park Capital of the World has a wealth of always evolving Disney, Universal, SeaWorld and LEGOLAND theme parks, plus an ever-growing inventory of smaller attractions. Tourism supports about one-third of the local economy, according to the Orlando Economic Partnership.

All eyes are on Universal's Epic Universe, a 750-acre property that Universal plans to open in five years with one or two theme parks plus entertainment, dining and lodging. Meanwhile, Disney World continues to enhance its Star Wars: Galaxy's Edge land themed around the Star Wars franchise at Disney's Hollywood Studios, and is undertaking to practically rebuild half of Epcot.

Smaller attractions thrive as well, since 75 million people visit the Central Florida market every year. "This broadens the range of regional offerings for guests, particularly to those staying for an extended period and those who may not have as much discretionary income, thereby complimenting the area's more iconic destinations," said Brian Sands, AICP, Vice President / Principal – Economics, AECOM. Sands sits on the International Board of the Themed Entertainment Association (TEA) and leads the research team of the TEA/AECOM Theme Index, an oft-cited, annual attendance study of the world's top theme parks.

The attractions range from a modest axe-throwing venue to splashy go-kart-facilities, from one-off thrill rides like the StarFlyer swing ride to indoor kid-magnets like the Crayola Experience at a regional mall. Wild Florida, originally a simple spot for airboat rides and alligator sightings, is adding a drive-through wildlife park and a zipline. Then there's the development of I-Drive (see sidebar).

"Orlando has matured so that there's room for smaller operators to make a go of it here," observed Brian Morrow, who before founding his Orlando-based attractions design firm BMorrow Productions in 2018 was VP Theme Park Experience Design, SeaWorld Parks and Entertainment. "Look at Fun Spot [twin amusement parks], which have big rides now and have really carved out a specialty niche, and the Margaritaville resort in Kissimmee, which was able to use new technologies at its H2O Live! waterpark to offer line reservations and custom music on slides."

Sports play a part, too. ESPN Wide World of Sports at Disney World brings in huge numbers of competitors over the year, but it's not alone. The state-of-the-art 100-court USTA National Campus in Lake Nona is a magnet for tennis players. Lake County, called the Choice of Champions because Olympic competitors train there, also has Jetsurf Academy Orlando, Hickory Point Beach Sand Volleyball, and the National Training Center for triathletes. Seminole County's Sports Complex opened in 2016 with 15 fields, nine of them with artificial turf. And the Orlando City Soccer Club is building a 20-acre, four-field training facility at Osceola Heritage Park. Seaplane enthusiasts gather in Tavares, and Eustis is seeking to build a sailing center.

With year-round warm weather, Orlando attracts athletes and hobbyists. They choose Central Florida to pursue their passion, then often make time to visit the attractions.

Suppliers are as abundant as attractions

Central Florida is home to many businesses supporting the attractions industry - architecture, ride design, engineering, AV integration, lighting, fabrication and much more. Many are expanding and more are moving in. "Orlando offers proximity to clients at both big theme park operations and ancillary operations, plus it's growing as a tech city," said Morrow. In addition to the rising number of attractions, he pointed to a bounty of local freelance talent who utilize organizations such as TEA, the International Association of Amusement Parks & Attractions (IAAPA) and Slice Creative Network for business networking.

"If you are a vendor to the theme park industry, this is the place to be," said Steve Birket, a lifelong Orlando resident and vice president of Birket Engineering, which has been serving major clients in the attractions markets for several decades. "TEA's Eastern North America Division - which includes Orlando - is its largest membership division," noted Birket, a past TEA International Board President. "Universal Creative moved its headquarters here from Los Angeles years ago, and IAAPA recently completed its move here from Washington, D.C."

Superlatives apply in Orlando

Orlando is the #1 destination in the world in terms of the number of annual visitors. The population increases by 1,500 residents a week, making the metro area the fifth-fastest growing numbers-wise nationwide. The Orange County Convention Center (OCCC) is second-biggest in the country – even before its expected \$600 million expansion - and the University of Central Florida (UCF) is the nation's second-largest college, with more than 68,000 students. Moreover, the Bureau of Labor Statistics ranks Central Florida as first for job growth nationally for the fourth year in a row.

The metro region includes Osceola, Seminole and Lake counties, and together they're expected to reach 5.2 million residents by 2030; that is roughly 50 percent more than today. Volusia, Polk

Disney's Rise of the Resistance attraction, slated for a December 2019 opening in Orlando, is expected to bring the latest technologies into a dark ride experience. *Photo ©Disney.*



I-Drive 2040 Courtesy Orange County Planning Division

and Brevard counties are sometimes considered part of the Orlando market; additional hospitality employees commute from them to Orlando.

Technology is one hot ticket

Technology is riding a growth wave in Orlando, in part with virtual reality, mobility and gaming companies. Some technology hubs already exist, and they in part support the attractions industry. More are under development. Defense contractor Lockheed Martin has long had a presence in Central Florida, while the very active Space Coast is only an hour away.

The area's 2,000 tech companies contributed \$14 billion to the Orlando economy in 2018, and the number is on track to double over the coming decade. In July 2019, the Orlando Economic Partnership named a Vice President of Innovation, Sheena Fowler, just to help grow this segment of the economy. The Partnership itself markets Orlando with the slogan, "Orlando – You Don't Know the Half of It."

"There's an innovative spirit here between the simulation and technology sectors as the tech industry grows rapidly," said Morrow.

Three Orlando colleges (UCF, Full Sail and Embry Riddle) offer degrees in simulation. Orlando enterprises receive \$6 billion a year in modeling, training and simulation contracts, in large part from the military (see p. 34 of this issue for Peter Weishar's article about Themed Experience education at UCF).

Tech alone, and theme parks' storylines and intellectual property (IP), pair successfully, observes Birket. "The technology is ever more enabling the next great guest experience, but the home runs are made when it is coupled to a great IP and great story. The tech by itself, or the IP by itself, doesn't spin the turnstile."

Central Florida has become one of the nation's centers for developing autonomous vehicles, which might be used in attraction parking lots and theme park rides. Reasons include friendly state laws that allow testing on roads, the lack of snow, and UCF's College of Optics and Photonics as assets. Bonus: A 475-acre area AV testing facility called SunTrax is being built nearby with a 2.25-mile oval track and simulated transportation environments. Several local companies have the necessary LiDAR (light and sensor mapping technology) expertise.

Located near UCF, Central Florida Research Park is a 1,027-acre collection of 145+ tech businesses with more than 10,000 employees. Among those are specialists in autonomous vehicles, aviation, aerospace, biotechnology, life sciences, energy, alternative fuels, photonics, electronic hardware and software development. It is the heart of a wider area referred to as Innovation Way.

In summer 2019, Orlando's Creative Village opened on 68 acres as a hub for tech companies, especially gaming firms. So far, the \$1.5 billion urban infill mixed-use community has a shared campus for extensions of UCF and Valencia College.

Inside I-Drive's drastic revolution

Visitors coming to the convention center or theme parks are most likely to visit International Drive (I-Drive). Downtown Orlando continues to grow, yet, if all goes as planned, by 2040 I-Drive may be the – or a second – center of the Orlando metro area. The goal is the crux of the I-Drive 2040 Strategic Vision, published in February 2016.

It all began when convention attendees were asked for input about their Orlando experiences. The answer: They want an urban environment so they can easily get to hotels, restaurants and or entertainment venues.

They were talking about walkability, which the I-Drive area lacks, noted Alberto Vargas, Orange County planning manager. "Best practice tells us that a city needs more than 140 intersections per square mile to be a walkable environment," he said. While Downtown Orlando – which is also growing, with ambitious new skyscrapers in the works – ranks a respectable 126, International Drive is a lowly 17.

If the 2040 Strategic Vision plays out, the International Drive neighborhood will be a live/work/play community with high-rises, shorter blocks, parking out of sight, cafés near sidewalks, parks, easy and inexpensive public transportation, and gawk-worthy dynamic art on the exteriors of buildings that would otherwise be bland. "We don't want to be Las Vegas or Times Square, and we don't want to be tacky, but we do want electronic types of signs," Vargas explained, noting that advertising will be strictly limited. These prominent displays, Vargas added, will showcase Orlando as progressive in lighting technology.

In the meantime, attractions, restaurants and entertainment options continue to grow. ICON Park, known for a huge, high-tech observation experience, The Wheel, has small museums and countless eateries – with more on the horizon, plus the growing Tin Roof concert venue. I-Drive has enormous polished facilities for golf, go karts, laser tag and virtual reality games, most with upmarket food and beverage offerings. The neighborhood has more escape rooms than most small cities.

Fun Spot is adding a water park, Dezerland will open with an auto museum and indoor rides, the Gyro Drop Tower will be a new thrill ride, and the Skyscraper roller coaster is planned as being the world's tallest coaster to date. That's all in addition to new offerings at the Universal and SeaWorld theme park complexes. •



I-Drive district overview map. Courtesy Orange County Planning Division

Osceola County wanted to get into the technology game, so it chose to focus on sensor technology and other nanoscale electronic systems. A 500-acre master-planned community, NeoCity's heart is the Center for Neovation, an R&D and manufacturing facility.

In addition, Lake Nona on Orlando's southeastern corner, and Wellness Way and Olympus, in Lake County, are master-planned communities with technology and wellness focuses.

Housing visitors and hospitality workers

Lodging facilities are sprouting up robustly as well – whether hotels, timeshare units, rental villas or Airbnb-type spaces. More than 45 new hotels should be up and running by 2020, according to CBRE Research's 2019 Southeast U.S. Real Estate Market Outlook.

Osceola County has historically been known for three types of visitor lodging: budget motels, rental villas, and pockets of modest cookie-cutter houses used as vacation getaways. Now the county is seeing a surge in upscale vacation homes located within villa communities with resort-like amenities. "Five years ago, we had approximately 6,000 vacation homes," said DT Minich, president and CEO of Experience Kissimmee. "Now we have more than 22,000 brand new, custom-built vacation homes with three to 15 bedrooms." They attract multigenerational families.

Ironically, tourists have a far easier time finding places to lay their heads than do the local hourly workers. All this growth is exciting for Orlando, but it's not all trackless rides and character

costumes. The cheerful folks who strap us into roller coaster cars, guide us to parking spots, and clean our hotel rooms are crucial to upholding each brand and delivering Orlando's signature, friendly guest experience. They earn relatively low wages, and are experiencing a severe housing crisis.

The Orlando area's median annual income of \$26,000 to \$36,600 is among the lowest of any major metropolis in the country, according to the May 2018 Regional Affordable Housing Executive Summary. That makes salaries "lower than required for most individuals to afford the area's median housing costs," it reported.

About 21 percent of Orange County's 352,000 households pay more than 30 percent of yearly income in housing and utilities, which is the threshold for housing affordability. And, since cars are frequently necessary for getting to work, transportation costs cut into rent money. The Economic Partnership's 2030: Insight into Orlando's Future report estimates households should spend 15 percent tops on transportation – about \$7,300 a year. Central Floridians average from \$11,000 to \$13,000.

County Mayor Jerry L. Demings took office in December 2018 and within months implemented a "Housing for All" initiative aimed at addressing the problem. So far, a main plan involves two elements: building multi-income, multi-use communities that will serve residents in a range of income levels, and adding lower-priced housing units to existing communities. Alberto Vargas, Orange County planning manager, said, "We build sustainable communities that are all-inclusive. They're mixed."

IAAPA Headquarters: Home away from home

When IAAPA opened its new global headquarters building in summer 2019, it did so not just for its 50 or so employees, but also for all IAAPA members. Half of the 22,000 square feet are designed for folks who don't work on staff. "We have meeting rooms reserved just for members, smaller quiet rooms for conference calls and hot desk spaces with WiFi connectivity, plus a dedicated area on our patio overlooking the headway of the Florida Everglades," said Susan Storey, director of global communications. "Our goal is for members to see this as a place they can drop into and say hello. It's a nice option if, say, you check out the hotel at 11 a.m. but your flight doesn't leave until evening. We're only 20 minutes from the airport."

The location between the theme parks and the airport was purposeful, as was the choice of Orlando itself. The organization relocated from Washington, D.C., around its 100th anniversary, and moved into the new building not long after. "We started as more for government relations and lobbying efforts but we are so much more now – expos, conferences, educational sessions and networking," Storey noted. "Orlando is truly the heart of the attractions industry, with not only theme parks but also many, many manufacturers and suppliers in Central Florida. It's an international hub that our members travel to constantly." •





NeoCity Rendering - City Center Photo courtesy of Perkins+Will

The quest for public transit

Metro Orlando has always been car-reliant, so traffic has worsened as population and visitor numbers have risen. Interstate 4, the main thoroughfare through town, is in the midst of the 10-year, I-4 Ultimate rehab intended to ease North-South traffic. In addition, a beltway system around Orlando is finally seeing completion. These won't solve the whole problem. Orlando ranks as the 26th worst for traffic, according to the 2030 project.

The Lynx bus system, while award-winning, is limited in its routes. The light rail system SunRail debuted in May 2014 and now has 16 stops, running from Poinciana in the south to DeBary in the north. The diesel-electric trains run predominantly during commute times. Extra trains are added during major weekday evening events. Ridership grew 82 percent in the past year.

SunRail may ultimately connect to Virgin Trains USA (formerly Brightline) at Orlando International Airport and/or International Drive. All these extensions are “uncertain,” according to the 2030 report.

Orlando is no small world anymore. •••



Rona Gindin (rona@ronagindin.com), joined the InPark community of contributors in November 2017. Rona writes about tourism, business, travel, restaurants, lifestyle issues and the leisure industry. Her work has appeared in Zagat, foodnetwork.com, Brides, Parenting, Endless Vacation and other publications and websites.



This concept art illustrates a major action sequence from the thrilling finale of Dino Tour, Super 78's latest Immersion Tunnel attraction now open at China's Dinosaurland theme park. All photos courtesy of Super 78.

The storyteller's story

Super 78 finds success at the intersection of technology and narrative

by Noam Dromi

During my tenure as head of digital media for Mandalay Entertainment in the early aughts, I was able to witness firsthand – and be inspired by – how founder and CEO Peter Guber, a giant in the business of cinema and cross-platform storytelling, passionately advocated for identifying and supporting creative thought leaders.

One of the companies I became acquainted with during my time at Mandalay was Super 78 Studios, founded by veteran Hollywood visual effects and animation artists Brent Young and Dina Benadon. I think of Super 78 as embodying the kind of creative values that take our industry forward - driving narrative innovation through the creation of transformational digital tools that streamline workflow and improve efficiencies. This magic alchemy of story and technology is the north star for filmmakers, technologists and storytellers, and something that every successful theme park attraction captures.

Two decades since we first met, Super 78 continues to thrive as a globally renowned creative design and production studio pushing the bounds of imagination to develop and produce immersive,

interactive attractions for theme parks around the world. Their expertise in this arena encompasses Flying Theaters, 4D Attractions with real time-animation, VR Innovations, Immersion Tunnels and more, in addition to the creation of proprietary technology platforms.

As seismic shifts continue to reshape the media and entertainment industry at an alarming pace, Super 78 Creative Director and President Brent Young and CEO Dina Benadon have assembled a world-class team of creatives, engineers and designers who are passionate about collaboration and ready to take on the “impossible.”

Over the years, I've been able to work with the company and its principals on several projects that have consistently raised the bar for location-based entertainment attractions. I recently visited their Silver Lake headquarters in greater Los Angeles (just a stone's throw from the original Disney Bros. Studio) to talk to them about how they approach storytelling within the constantly changing technology landscape.

How hard can it be?

Since the beginning, Super 78's philosophy has been "If a creative concept needs a technology that doesn't exist, then we'll invent it." This "how hard can it be?" approach has become a hallmark of every attraction Super 78 has had a hand in creating.

For Super 78, 2019 has been one of their busiest years to date. But you would never guess that from the laid-back atmosphere of their creative space. It becomes clear that this is not a typical office the moment you walk in the door. You're immediately greeted by a five-foot-tall statue of SpongeBob SquarePants, arms open wide. Then there's the egg-shaped "Bond supervillain" chair (with incredible acoustics), an original "Mr. Toad's Wild Ride" devil sculpture sitting on a tabletop, VR stations set up almost everywhere.

And yet it's also clear that Super 78 takes their work very seriously. Among the many awards that line the entrance are several that represent the attraction industry innovations they've made that have applications well beyond themed entertainment. This includes a TEA Thea Award in 2016 (a top industry honor) recognizing the Geppetto™ technology, the company's proprietary live animation and show control system that brings digitally animated characters to life in real-time. The ability for guests to have unscripted one-on-one conversations with the likes of Brainy Smurf or Patrick Star is what has distinguished Geppetto attractions and their enormous success at theme parks across the globe.



Super 78's co-founders Dina Benadon, CEO, and Brent Young, President and Creative Director



Brent preps the helicopter and camera for Super 78's newest Flying Theater attraction, currently in production.

Exploring Geppetto's potential

In fact, even the Academy of Television Arts and Science in Los Angeles has taken note of the potential impact Geppetto could have on the production of animated shows. Super 78 collaborated with the TV Academy for two recent events including an interactive television panel at Nickelodeon Studios, which, thanks to Super 78 and Geppetto, was able to star "Star" Patrick Star from SpongeBob.

Following that event, Television Academy Interactive Media Governor and ABC/Disney Executive Chris Thomes summed up the challenges and opportunities from his vantage point. "Traditional television concepts are a thing of the past, and the entire industry is undergoing fundamental change as consumers shift from simply being passive viewers to engaging with content head on. What Super 78 created in Geppetto is a marquee example of lean-in technology and a look at where the future of interactive content is headed." Added Young, "It was a great case study of how tech advances in theme park shows can help bring innovation to other areas of entertainment." The Television Academy partnership culminated in one of Super 78's characters co-hosting the 2019 Interactive Emmy Awards Nominee Gala.

First developed by Young and Benadon for the company's 2010 production of Donkey Live! —an interactive experience for Universal Studios Singapore — Geppetto has indeed moved beyond the theme park realm.

"Geppetto has shown us that real-time animation isn't something just for the attractions industry," said Benadon. "Because of its potential applications across a broad range of entertainment opportunities, we've spent considerable time and resources to ensure that the footprint is as small and efficient as possible."



Concept art for a sequence in the new “20,000 Leagues Under The Sea” Geppetto experience at Moody Gardens, where guests will travel to a “shipwreck reef” and explore either a Chinese Junk or a Spanish Galleon.

This led to a collaboration with Microsoft to build the Geppetto system on a Microsoft Surface Studio, which was featured in Microsoft’s demo at NAB 2019 and will be the subject of an upcoming video profile. Added Young, “The Microsoft Surface team have been amazing partners. They instantly understood what we were trying to accomplish with Geppetto and how far it could push storytelling. They came to our offices earlier in the year and put together a beautiful video that did a great job of capturing the process and the culture of Super 78.”

“Microsoft and Super 78 are both in the business of telling stories through technology. Partnering with Super 78 on such a wonderful platform like Geppetto has excited all of us; we were so happy to share their story in the video we created,” said Megan Solar, Microsoft Surface Head of Marketing

Recently, Young, Benadon and the studio team have been hard at work on the company’s most technologically advanced Geppetto show to date, to replace the “SpongeBob SubPants” Adventure at Moody Gardens in November 2019. “We’ve reimagined the incredible story world of Jules Verne’s “20,000 Leagues Under the Sea” to create a one-of-a-kind interactive experience that will engage and delight audiences for years to come,” said Young. John Zendt, Moody Gardens’ Chief Executive Officer and President, is excited about working with Super 78 and Geppetto once again.

As Benadon explained, “This ebb and flow between technology and narrative is what keeps the balance in our work.”

Magic Mushroom

“Of course, our success is due in no small part to our amazing clients. They are like family to us,” Young and Benadon say almost in unison.

It was this strong empathy for their clients that led to another revolutionary technology: Mushroom VR™ the company’s proprietary pre-visualization system. Their purchase of an Oculus Rift developer kit in 2012 was the first step towards creating this immersive, collaborative, enterprise, virtual reality technology that lets creative teams review projects in production.

Mushroom was an integral tool in the production of the recently launched Dino Tour attraction for China Dinosaur Land Theme Park in Changzhou, China, another of the company’s major 2019 projects. This blockbuster experience starts with a tram ride through a practical rainforest environment filled with animatronic dinosaurs and finishes inside an immersion tunnel “cave.” With the ride vehicle locked onto a motion base, guests are enveloped by 8K 3D media projected on two massive side screens for an action-packed dinosaur-chase finale.

Young was able to “ride” a virtual build of the attraction together with the Dinosaur Land creative team — in real time — before any construction began. “Many of our clients are smaller regional parks and they have to make their dollars really stretch. Building full-size mock-ups in advance of construction is really not an option. Mushroom VR was our answer to that problem.”

With the Dinosaur Land team in China and the Super 78 team in Los Angeles, everyone could “pre-experience” the entire finale from any seat on the vehicle. And with Mushroom’s annotation and measurement tools, communication was visual and unambiguous. “Even with the different languages we all spoke, at the end of a review session, every stakeholder was clear about the creative intent,” said Benadon.

“Super 78 have been creative partners with us for nearly a decade and we find their technical innovations like Mushroom VR to be a critical part of the creative process,” added Dinosaur Land’s President Ni.

Mushroom has also shown its value as a tool during live-action film production. “When we are in the field shooting for our flying films, I can preview my helicopter shots in the virtual theater moments after I land,” Young explained. “If I need to do a shot over, we can get right back in the air without additional costs or time wasted.”

“Mushroom VR has been a standard part of our creative process since 2014. We couldn’t live without it now,” said Benadon.



Reef Rescue, now at Moody Gardens in Galveston, TX, is the world’s first High-Capacity Virtual Reality (HCVR) experience, allowing up to 15 guests at a time to interact in a virtual coral reef dive. Together, they clean up trash, plant new coral branches, and feed fish to restore a sick reef to health.

Reef Rescue

As a co-writer of the Warner Bros./Alcon Entertainment family film “Dolphin Tale,” I must admit that one of my favorite Super 78 attractions/innovations is the company’s “Reef Rescue,” an innovative, High-Capacity Virtual Reality (HCVR) experience featuring Super 78’s own original IP characters. Since being part of the team that wrote the “Dolphin Tale” team, I naturally enjoy all things that have a message about helping sea life and our oceans, “Reef Rescue” is a great example of both. Launched at the Audubon Aquarium of the Americas in New Orleans, LA in 2017, the experience moved to Moody Gardens in early 2019 (yet another big milestone for the company this year) and has already extended for a second season.

“Reef Rescue” takes up to 16 guests at a time on a virtual dive to restore a stressed coral reef environment back to health. Guests work together using handheld “ranger” gear to clean up garbage, plant coral and feed fish. This is another example of the company’s emphasis on multi-layered storytelling powered by unique technology solutions. “Reef Rescue” represents an important evolution in LBE virtual reality, allowing large groups of guests to collectively experience a sustained narrative. In contrast to VR arcades and other large-scale attractions utilizing the technology, the competitive price point and multi-player features of “Reef Rescue” make it a stand-out attraction in a cluttered marketplace.

“Lessons learned in developing Mushroom inspired what we did with ‘Reef Rescue’ – adding more users, more interactivity, more game design and more live animation rendering,” Young explained. “This is how we’ve always done it, pushing the envelope of storytelling by pushing the technology,” added Benadon.

Flying high

From the “Wings Over Washington” Flying Theater at Seattle’s Miner’s Landing to “Alpha Flight,” a thrilling trip through deep space that debuted at India’s Wonderla Theme Park in 2018, Super 78 is a major player in the flying film attraction category. Young explains, “Alpha Flight was a big step for us, the first all-CG flying film we’d ever produced. We also worked with Wonderla to create graphic assets for signage, ride host uniforms, and merchandise, and we helped them to find preshow effects equipment that didn’t break the bank.”

This expanded scope has been an essential part of all the projects the company takes on to ensure that they’re involved in the design process from initial idea through launch. “We enjoy working with master planners and thinking about the kinds of attractions we can create that will become instant ‘hits’ for their guests,” said Young. “Our job is to try and make the entire process as turnkey as possible for our clients,” added Benadon.

As Miner’s Landing’s Kyle Griffith said, “A key ingredient to the success of Super 78 is their passion and energy for their clients’ projects. Dina and Brent’s enthusiasm and excitement helps to bring out the absolute best in all the team members and inspires them to make the vision for the project become a reality.”



Since 2013, Benadon and Young have overseen the careful restoration of the modest home in Chicago, IL where Walt and Roy Disney were born. Today, it looks just like it does in the earliest known photo of the home.

Rooted in Disney

Super 78's proximity to the original Disney Brothers' Studio is no accident. Life-long Disneyphiles, Benadon and Young have always looked to Walt Disney as a source of inspiration in the marriage of technology and narrative. They take that inspiration so seriously that they stepped in to save the Chicago birthplace of Walt and Roy — a 1,200 square-foot, two-story cottage designed and hand-built by Walt's parents Elias and Flora Disney in 1893 — when it was at risk of being lost forever.

Since purchasing the home in 2013, the Super 78 heads have stewarded its careful and historically accurate rehabilitation as a passion project that has received considerable media attention. Thanks to thousands of individual donations and a major grant from The Walt Disney Company, the home's exterior and interior have been restored to their original state. Tim Samuelson, Cultural Historian for the city of Chicago welcomes Brent and Dina's contribution to preserving an important part of the city. "If you're going to tell the story of Chicago, the Walt Disney Birthplace is the perfect place to tell it," he said.

Once it opens for public tours, the home will harness cutting-edge technology to transport guests back to Chicago circa 1905, when the Disney family first lived there. Like Super 78's other projects, this marriage of narrative and technology will introduce an unforgettable immersive experience to denizens of the "Windy City."

People make a team

Brent and Dina are just as enthusiastic about their work today as when I first met them, if not more so. The creative passion, intellectual curiosity and sense of fun they bring to each project they take on reinforces why they're held in such high esteem by their clients, colleagues and peers.

"We've built an amazing team with hundreds of years of combined experience in our industry and an unparalleled passion for making great attractions and experiences. As technology develops, so does our creative thinking, with no limit to what can happen," said Benadon.

I'm sure Super 78's long roster of satisfied customers, partners and collaborators, would agree. Now if you'll excuse me, Brainy Smurf was just about to tell me why he's blue. •••



Noam Dromi is an Emmy Award winning producer and member of the Writers Guild of America, Producers Guild of America and Academy of Television Arts and Sciences. A veteran writer/producer, marketing executive and digital strategist, he specializes in cross platform content developed and produced for corporations, brands and entertainment companies.



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“Wear comfortable shoes!”

Alice Mathu of IAAPA talks about #IAAPAexpos, Orlando and her role in the organization

interview by Martin Palicki

Tell us about your responsibilities at IAAPA and how long you’ve been with the association.

I have been with IAAPA for almost 14 years. Today, I oversee sales and operations for IAAPA’s three global Expos — IAAPA Expo [Orlando], IAAPA Expo Europe, and IAAPA Expo Asia — as well as the many IAAPA conferences, meetings, and events around the world. In addition, I lead IAAPA’s global sales team including exhibit, advertising, and sponsorship sales.

How did you first engage with the attractions space and IAAPA?

I came to the attractions industry by accident. I was completing an Event Management Certificate program at George Washington University in Washington DC. Part of the program required that I work an Expo or other event. IAAPA needed some help on various projects, so I worked with the association for three months and then was excited to join the team full time. At the time, I didn’t realize there was an association for every kind of business and industry, and IAAPA is definitely the fun one!

What are some of the highlights people can expect at this year’s Expo in Orlando?

There’s always something to look forward to at IAAPA Expo.

We have a sold-out trade show floor with over 1,100 exhibitors! Back by popular demand, Exploration Station, an outdoor structure, will host 143 exhibiting companies. This is a great example of how we continue to seek innovative ways to grow the Expo and provide new opportunities for both our exhibitors and our attendees.

We’re always so proud to work with our many members to host the IAAPA International Charity Golf Tournament benefiting Give Kids The World Village. This year it will be held at Shingle Creek Golf Course, and of course the annual Fun Run will also benefit the Village.

And IAAPA Celebrates is always the perfect way to help close IAAPA Expo. This year our attendees will be able to experience exclusive access to The Wizarding World of Harry Potter™ – Hogsmeade™, Skull Island: Reign of Kong, and Jurassic Park, including Jurassic Park River Adventure and Jurassic Park Discovery Center.



Alice Mathu CEM, CM is Vice President of Exhibitions, Conferences, and Sales for IAAPA

Are there any important developments for IAAPA Expo we can look forward to?

Orlando has become the home of IAAPA’s global headquarters and IAAPA Expo. Over the next few years, the Orange County Convention Center will undergo a \$605 million multi-year expansion that includes additional meeting space and an 80,000-square-foot ballroom. These are exciting additions for the building, and we are already looking at ways this will positively impact the Expo in the coming years.

Will IAAPA Expo always be in Orlando from now on?

We expect to remain in Orlando at least until 2030.

What tips do you have for first time exhibitors and/or attendees?

Besides “wear comfortable shoes”?

I always tell first-time exhibitors to be sure they participate in the pre-Expo webinars to help put their best foot forward in their booth. I also recommend the invite-only, first-time exhibitor Meet and Greet event. Meet and Greet enables new exhibitors to meet industry veterans and committee members and can offer great assistance and insight on what Expo week is all about.

For attendees, I have similar advice. If this is your first Expo, attend the First Time Buyers’ Experience to hear key highlights about the week and tips to successfully navigate the show. Our education sessions and programs are truly top-notch and I encourage everyone to attend them, as well as the many networking and special events.

Most of all - have fun!

And don’t forget, the entire IAAPA team is able to assist with anything. Introduce yourself, visit IAAPA Central and stop by the Show Office. We are here for YOU!

What are some of the educational highlights for this year?

Oh, there are so many great opportunities it is hard to pick! A few highlights are:

- Lunch and Learn with George Walker, Creative Director, Universal Creative Studio
- Game Changer CEO and Co-Founder of Meow Wolf, Vince Kadlubek
- The ten EDUTours to Fun Spot America, Walt Disney World Resort; LEGOLAND Florida Resort, SeaWorld, Universal Orlando Resort, Pandora - The World of Avatar, Gatorland, Aquatica, Universal’s Volcano Bay and Island H2O Live!
- GM and Owners’ Breakfast featuring Carnival Cruise Line president, Christine Duffy

How do you select the location for the Thursday networking party and other off-site events?

IAAPA Celebrates is the largest event during IAAPA Expo. We love to showcase the newest and coolest attractions and experiences around Central Florida to our attendees, and our members look forward to hosting this event. It really does take a village to plan this great event each year. •••

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Sports of all sorts

Whether in a museum, theme park or factory tour, JRA brings out the fan in all

by Joe Kleiman

Three new projects master-planned and designed by JRA showcase different aspects of the sports world. All opened in 2019; all are in the US; all touch regional history. The redesigned Louisville Slugger Museum & Factory, in downtown Louisville, KY, held its official re-opening on June 11. Inside, guests are given an in-depth look of how a key component is created for America's classic pastime. On July 13, the historic Kennywood theme park in Pittsburgh, PA opened its record-breaking roller coaster Steel Curtain as phase one of the new themed land Steelers Country, where the park showcases its pride for the home football team. And on the banks of Lake Michigan, the town of Whiting, IN became the permanent home of the Mascot Hall of Fame - a combination of children's museum and monument to the great sports mascots of North America - on April 4. All three are designed to be enjoyed by adults and children alike, regardless of team affiliation.

Batting 1,000 in Louisville

A few short blocks from the Ohio River in Kentucky, the Louisville Slugger factory has been in operation as a family-owned business since 1884. The wood bats that the company manufactures are the stuff of legend – attached to such baseball

greats as Babe Ruth, Jackie Robinson, and Derek Jeter. In 2015, the Louisville Slugger brand was sold to Wilson Sporting Goods, but Hillerich & Bradsby Co., the originators of the brand, continue to manufacture the Slugger bats in the Louisville factory, as well as operate the tour and museum.

An extra challenge of the project was keeping the facility open during its transformation. “Some places shut down completely when undergoing renovation. We did not want to do that,” said Anne Jewell, the Museum’s Executive Director. “JRA worked on a transitional strategy, utilizing temporary walls, and determining how to move our guests from one place to another safely during the tour on the working factory floor.” In June 2019, with construction complete, the factory officially opened the completed, redesigned tour that took guests through the history of the brand while giving an updated look at the manufacturing process.

The new tour begins in a theater simulating the outdoors. “We wanted to start off with the story of the bats before the factory, so we begin by telling the story of the wood. It comes from our own mills in Pennsylvania and New York,” said Jewell. “You



Part of the Louisville Slugger factory tour includes demonstrations on how bats are carved. Photo courtesy of Bambino International.



The Steel Curtain roller coaster at Kennywood Park. *Photo courtesy of Kennywood Park.*

start feeling like you're in a forest setting, which leads to a full projection of production in our mills. We walk you through the steps of selecting and growing the wood, and we talk about the environment, about the importance of preserving and managing forests and natural resources. A door opens after the film, creating a big reveal. As guests walk through, they find themselves in the heart of production on the factory floor."

"We determined the interactive elements by assessing the overall goals and objectives for the project, as well as the storyline and factory tour layout," said Matthew Wheeler, Senior Project Director for JRA. "We then coordinated with the client and design teams regarding script and story to determine the best possible hands-on traditional interactives, in which the guest experience is actually enhanced by feeling and seeing the authentic processes taking place on the tour."

Wheeler continued, "We realized pretty quickly that guest spaces and time durations at each stop were critical to maintain the tour's overall throughput. The new stops were determined after equipment and production lines were relocated." Activities that were traditionally found on the factory floor were relocated to the museum, which acts as both a pre- and post-show area for the tour where guests can interact with the craftspeople. This transition allows for streamlining tours through the factory, while allowing guests more time to enjoy these activities in a free-flow environment. Exhibit stops include the player billet bin, which features billets - cylinders of wood destined to be transformed into bats - that guests can pair up with bats designed for major

league baseball players. At another exhibit, the nubs cut off the end of the billet during its transformation into a bat are delivered to a bin via conveyer belt. "It's a family attraction, where children, parents, and grandparents all approach baseball and the Louisville Slugger bat from a different but unified perspective," said Wheeler.

Steelers energy

An hour away from Heinz Field, home of the NFL's Pittsburgh Steelers, sits one of America's historic amusement parks, Kennywood, founded in 1898. In July 2019, the park opened the record-breaking Steel Curtain roller coaster as the first phase of a new themed land called Steelers Country. This is the latest sports IP themed project from parent company Parques Reunidos (operating in the USA as Palace Entertainment) following the opening of the sports motorcycle branded Ducati World at the company's Mirabilandia theme park in Italy in April 2019, and the announcement in May 2018 to open five entertainment centers themed to the Barcelona Football Club.

Named after the Steelers' legendary defensive line from the 1970s, the roller coaster, provided by S&S Sansei, offers nine inversions and features cars themed by JRA (one of two coaster car designs by JRA to open in 2019, the other being the Runaway Tram at Morey's Piers in New Jersey). "With Steelers Country, the Steel Curtain roller coaster is the crown jewel," said Rick O'Connell, Senior Project Director for JRA. "Coaster fans from all over are going to come for this record-setting attraction. For the rest of the area, we focused more on the game itself, along



At the Mascot Hall of Fame, kids get to practice being mascots through interactive dancing challenges and trying on sample mascot heads.
Photo courtesy of Charlie Simotaikis Photography.

with the game day experience, allowing fans of any/all teams to still enjoy the attractions and interactive experiences. Even Bengals or Ravens fans will enjoy throwing footballs through targets or racing against NFL caliber speed. With Kennywood being in Pittsburgh, however, an overwhelming majority of guests coming to Steelers Country will be fans of the local team.”

Phase 2 of Steelers Country, opening in 2020, will encompass a range of family-friendly activities within the Steelers Experience. Rather than go the traditional route with an exhibition of historic photos and awards (which are kept at Heinz Field), it was decided to concentrate on the fun elements of the game for Steelers Country. According to Christopher Duarte, Senior Project Coordinator for Kennywood owner Palace Entertainment, “JRA, Palace, and the Steelers met to discuss what Steelers Country could and would be. It was decided that Steelers Country would focus on the game-day experience, bringing the energy of athletic competition, tailgating, and the stadium to Kennywood. The Steelers promoted the game-day atmosphere of the land, as well as identifying the best activities for each area. The team was also involved with any branding and imagery approvals. JRA developed the concepts for all the activities within the Steelers Experience, the outdoor skill games, End Zone Café interior, and tailgate area.”

According to O’Connell, 80% of the activities planned for Steelers Country are physical in nature. However, designers have taken the family dynamic into consideration. “For Steelers, most of the activities are just that, active,” he says, “When the Steelers Experience opens, younger fans will be able to enjoy climbing through a massive indoor playground, aptly named the ‘Terrible Tower,’ which includes a number of mechanical ‘Terrible Towels’ that spin as guests make their way to the top. However, with a full-service restaurant, a game day tailgate patio, a number of photo-ops, and plenty of seating, the older crowd has plenty to enjoy.”

From pierogis to mascots

Founded on the shore of Lake Michigan in the 1800s and supported by the railroads and refineries, the small town of Whiting hit the international stage in 1994 with the annual

Pierogi Fest®, held in July. Each year, 350,000 people visit the small Indiana town of 5,000, located 30 miles south of Chicago, to celebrate the Slavic dumpling. In 2007, the town began to look for projects that would encourage non-residents to visit year-round. Conversations soon began with Dave Raymond, the original Phillie Phanatic, who had founded the Mascot Hall of Fame online, about building a permanent home in Whiting.

With Pierogi Fest® having not one, but six mascots, and officially licensed studio characters participating in its annual Fourth of July parade, Whiting could be seen as an ideal home for the Mascot Hall of Fame. Said Amy Frets, Director of Communications for the City of Whiting, “We were able to persuade Disney to bring Mickey and Minnie up from Disney World to be Grand Marshals in our parade. That’s unheard of. Usually, they’ll go up to a big city like Chicago, but that’ll be it. But they came to Whiting, and other licensed characters followed, including Looney Tunes and Marvel characters.” The decision for Whiting to host the Mascot Hall of Fame in many ways mirrored the establishment of another JRA-designed project, the National Comedy Center in Lucille Ball’s birthplace of Jamestown, NY. Much as the Lucille Ball Comedy Festival set the stage for the National Comedy Center, Whiting’s quirky festivals and charismatic mascots help set the tone for the Mascot Hall of Fame. [See “Exhibiting Signs of Laughter,” InPark issue #72, April 2018.]

“Mascots create fun and entertainment for the whole family,” said O’Connell. “Likewise, the Mascot Hall of Fame creates fun and entertainment for the whole family to enjoy together. The goal of the museum is to create shared memories for families, so while many of the exhibits focus on kid-friendly activities, older guests have plenty to enjoy. Some older guests may be more passive, so two theaters play highlight reels of the inducted mascots, while Hall of Fame databases allow guests to learn more about them.”

Rather than greet guests with a traditional array of busts or statues, JRA devised a whimsical alternative that plays with the nature of mascots. Inside the museum’s three-story atrium sits a mobile, with each of the inductees represented as a giant tethered inflatable. Currently, there are 21 inductees, with room for up to

40 on the mobile. To learn more about the mascots, guests can visit interactive kiosks on the second floor, where facts appear on-demand on virtual trading cards.

Al Spajer, founding Executive Director of the Mascot Hall of Fame, referred to the facility as “overt fun with subliminal education.” The underlying concept is that guests are traveling through Mascot University. The museum, a member of the Association of Children’s Museums, consulted with local schools and universities to ensure that the attraction met state standards for STEAM education, making it a destination for field trips. JRA’s O’Connell shares how, under the Mascot University umbrella, each exhibit represents a unique university department. “For example, in the Department of Phuzzical Education, guests learn about the physics involved in trying to shoot digital T-shirts from a T-shirt cannon. In the Department of Furry Arts, guests have the opportunity to design their own mascot, audition to become a mascot, and even transform themselves into a mascot. The Science of Silliness Lab features such scientific disciplines as nutrition and biology.”

Orestes Hernandez, the museum’s current Executive Director, says that what was originally designed as a temporary filler exhibit, Feel the Fur, has had an unexpected impact. “Some of the exhibits were put in not knowing what the reaction would be. Feel the Fur has panels lined with the different textures and materials of mascot costumes. This interactive was strictly designed as filler. It turned out to be extremely popular with kids on the autism spectrum.”

Waders, swimmers and divers

Senior Project Directors Matthew Wheeler (Louisville Slugger Museum & Factory) and Rick O’Connell (Steelers Country, Mascot Hall of Fame) acted as the respective faces of JRA from the initial design charrette until the projects were handed over for installation, interfacing with the client and setting the creative direction for the JRA design team in keeping with the client’s vision. Clara Rice, JRA Director of Communications said, “They also work with the project manager to set the project schedule and budget, as well as to source any subs (AV integration, media, lighting, etc.) Once the project is in installation, they work with the art director to ensure that the design intent is manifested in the final exhibit or attraction. With Steelers Country, Kennywood provided their own installation team, so our scope ended at final design. For the other two projects, we were with the client from initial charrette through planning, design, implementation, opening and punchlist.”

Shawn McCoy, Vice President of JRA, said, “Part of JRA’s company culture is that we really listen to each of our clients and understand their overall visions before we start imposing any type of creative solution. Once we have a solid understanding of what the client is trying to achieve, we then begin determining major messages or takeaways, which evolve into major experience areas, and ultimately, specific exhibits and attractions.”

Project Credits, courtesy of JRA

LOUISVILLE SLUGGER MUSEUM & FACTORY

JRA - Master planning, exhibit design, graphic design, executive media production, art direction, project management

Matthew Wheeler, Senior Project Director
Anita Daugherty, Executive Producer, Media
Sam Colvin, Designer (Environmental and Graphic Design)
Rebecca Parnell, Senior Project Manager
Jason Hedges, Senior Project Manager
Shawn McCoy, Vice President (Executive-in-Charge)

General Contractor – Schaefer Construction
Architect of Record – Forza Architecture
Media Story Writer – kre8-360 (John Zaller)
Cinematographer/Editor – Dave Morrison
Factory Video Cinematographer - Mike Theobald
Factory Video Editor - Scott Neumann
Media Producer – Husky Boy Creative and Production
Lighting Design – Abernathy Lighting Design
AV Design – 767 (Graham Wickman)
Exhibit Fabricators – Geograph Industries
Graphic Production/Installation – USA Images
Hardware Systems Integration – Trinity Dynamics

STEELERS COUNTRY

JRA - Master planning and design
Rick O’Connell, Senior Project Director
Scot Ross, Senior Project Designer (Graphic Design)
Jason Hedges, Senior Project Manager
Shawn McCoy, Vice President (Executive-in-Charge)

Lighting Design - Abernathy Lighting Design
AV Integration – Electrosonic
Coaster – S&S Sansei Technologies
Fabrication – Largely in-house

MASCOT HALL OF FAME

JRA - Master planning, writing and content development, exhibit design, graphic design, executive media production, art direction, project management

Rick O’Connell, Senior Project Director
Scot Ross, Senior Project Designer (Environmental and Graphic Design)
Ron Bunt, Vice President (Project Manager/Executive-in-Charge)
David Ferguson, Art Director

Lighting Design - Abernathy Lighting Design
AV Integration - Electrosonic
Media Developer - Trivium Interactive & Northern Lights Production
Fabrication - Chicago Scenic Studios

O’Connell added that the company “prides itself on coming up with a good mix of attractions/exhibits for every project. We like to think that most guests fit into one of three categories: waders, swimmers, or divers. Waders are guests who are more passive; they like to experience from afar but are not very hands-on. Swimmers are guests who like to experience a little of everything.

They’re hands-on; they read; they can be active. Divers are guests who can spend hours reading every detail or trying a certain interactive over and over again until they feel they have had a sufficient experience. At JRA, we like to create exhibits that can accommodate all three types. It needs to work as a passive experience as well as something more in-depth.” •••

The Breakdown

We asked JRA’s Senior Project Directors to break down each project between AV elements, traditional interpretive signage and displays, and physical interaction elements.

MATTHEW WHEELER

New elements at the **Louisville Slugger Museum & Factory** are:

- New AV includes repeater monitors at the hands-on activities within the museum (hand turning and burn branding and all stops within the factory)
- New media at pre-show, new signage, environmental tree elements and display
- New introductory theater film
- New media at five factory tour stop locations, each related to a different part of the manufacturing process
- New super-graphics on existing walls to convey history and process
- New hanging environmental graphics, identifying each tour stop location
- Exit room experience graphic and visitor mini-bat distribution experience

RICK O’CONNELL

O’Connell breaks down the elements on his two new projects this way:

Steelers Country

- 80% physical interactive
- 10% AV/media
- 10% signage

Mascot Hall of Fame

- 60% physical interaction
- 35% AV/media
- 5% traditional signage



JRA’s rendering of the Steely’s Trailer Final experience, scheduled to open in 2020.



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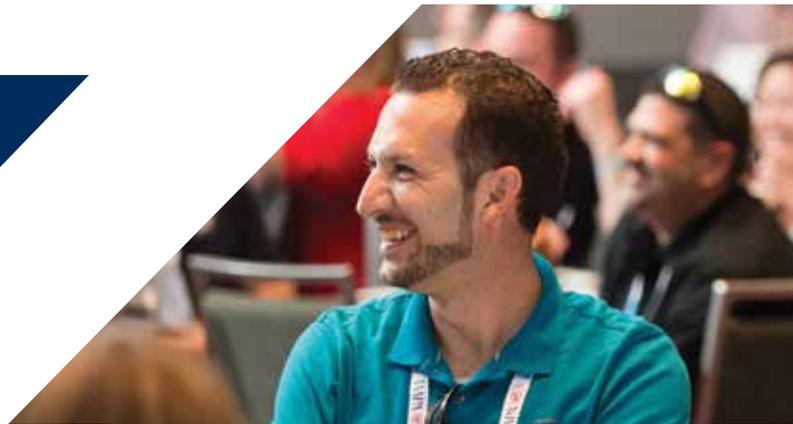
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*Savings based on full price,
on-site registration rates.



Thinking “up” instead of “out” - Featuring numerous Polin slides, The Wave is considered a design game-changer for waterparks and an agent of urban revitalization for Coventry. All images courtesy Polin.

The Wave and the Spire

Beneath an historic spire in Coventry, Polin slides grace a unique vertical waterpark

by Joe Kleiman

In the city center of Coventry, 18 miles southeast of Birmingham, England, sits the cylindrical building known as The Wave. Part fitness center, part waterpark, featuring six cutting edge slides from Polin Waterparks, the £37 million building is the centerpiece of an urban renewal project that links the city’s past with its future (see sidebar).

The Wave and the Spire

It is in the shadow of the Christ Church spire, upon the remnants of the original 13th Century Greyfriars Monastic Church, that The Wave has been constructed.

Although small villages had existed in the area, the story of Coventry begins in 1043, when Leofric, the Earl of Mercia, and his wife, the Lady Godiva, founded the church around which the city of Coventry began to develop.

Almost two centuries later, in 1234 the Franciscan monks of Greyfriars Monastery began building a monastic church in Coventry, with a spire 230 feet (70m) tall. In 1538, the Greyfriar order was suppressed by Henry VIII and the walls of the church were torn down, leaving only the tower and its spire in place. The spire eventually blew down in 1551. The spire had been rebuilt by 1832, when Christ Church was built on the former

Greyfriars property, attached to the original tower. The church was destroyed in the 1940s during World War II and the remnants demolished in 1950, with only the tower and spire remaining.

The Christ Church spire is one of three historic church spires that line the Coventry skyline – Holy Trinity and St Michael’s are the other two.

“An exceptional leisure park”

Coventry City Council, which owns the property, selected the name “The Wave” for the waterpark and fitness complex “because it’s short, memorable, descriptive and it has been taken from the design of the building. The logo features a spiral letter ‘W’ that brings a flavor of a twisting flume ending in a splash of water making it an innovative and modern design.”

The first phase of the complex, located on the lowest level and featuring a swimming pool, fitness center, squash courts, a dance studio, and a day spa, opened on July 22, 2019. The second phase of the project is the waterpark, taking up the top two floors of the building, and features six overlapping Polin waterslides, along with a lazy river and an 11m wide Breaker wave pool from Murphy’s Waves.

According to Roger Currie of Neuman Aqua, an international design/build company that specializes in diverse aquatic entertainment facilities: “The Coventry leisure park is such an exceptional structure. It’s beautiful, sophisticated and will have an incredibly positive impact on the city.”

Designed by FaulkerBrowns Architects, whose recreational projects include indoor snow and ski facilities, velodromes, and aquatic centers in North America, the UK, and Dubai, The Wave sits on a tight footprint only 50m in diameter. In a January 28, 2019 article in the Coventry Telegraph, Robert Summerson of FaulkerBrown explained how the architects had to think “up” instead of “out” when designing the structure. “These types of facilities are usually located on out-of-town locations to allow for extra room, so the limited space threw up a range of critical design-related decisions that could well redefine the creation of other waterparks moving forward.”

Six Polin slides and a unique installation

Placing the waterslides in such a tight area was an installation challenge. “The floorplan ultimately put the waterslides on the third floor, an especially unusual proposal,” stated Zeynep Canbaz, Senior Architect of Polin Waterparks. “That meant



Slides weave in and around support structures suspended from the ceiling.

Polin needed to specially adapt its rides to fit within the specific limitations of the building's mostly round layout and its constricting ceiling height. It wasn't an easy design. But it was incredibly fun to work on. It was challenging yet exciting to see the puzzle pieces of the slides match the required size needs and, finally, fit perfectly within the restrictions of the facility."

The six slides provided by Polin for the project are:

- **A Sphere-Space Shuttle Combo called The Crestar.** Polin fused two of its rides to create this streamlined attraction that puts two riders on a raft that enters a steep drop that sends them speeding into both a sphere and a pod. In both, gushing water propels riders from side to side before exiting out and expelling them downhill. Polin's Natural Light Effects (NLE) technology enlivens the experience with color as light from outside the tubes interacts with water sluicing inside to create amazing light effects.
- **A Space Hole called The Cyclone.** Situated at the center of the new leisure facility, this ride propels riders through an enclosed tube that exits into a huge, open bowl. Centrifugal force whirls riders around the bowl's interior before they exit via a breathtaking splash through the bowl's center and drop into a plunge pool on the second floor. Polin's NLE technology adds extra drama to the ride.
- **A Looping Rocket called The Torrent.** This attraction features a unique "launch capsule" with a trap door that opens to send riders through a high-speed, horizontal,

360-degree loop. Translucent components allow other guests in the facility to watch riders shoot through the slide's tubes.

- **A Navigator called The Rapids.** Riders slide along an extensive 135m (443-feet) path on this water coaster ride. Whether riding alone or with a friend, travelers slip in and out of the light as they experience a unique light show due to the slide's NLE technology.
- **A Tunnel Body slide with Slide'N Roll special effects called The Cascade.** This specially engineered ride delivers a long, smooth journey. It combines several technologies exclusive to Polin to integrate unique sound, lighting and design special effects into one slide. The goal: an experience that fulfills the full range of sensory stimuli for guests.
- **A Mini Tsunami called The Riptide.** High capacity is the feature of this waterslide that is strategically designed for "end-to-end" excitement. The slide will feature a custom Coventry logo design on its exterior.

With the waterpark built on top of the fitness center, the weight of the slides was a major consideration. All of Polin's slides at the project were manufactured using Light Resin Transfer Molding (L-RTM) technology, which not only creates slide components with a shiny, smooth finish on both the interior and exterior, and result in lighter weight slides than traditional manufacturing methods, reducing the load and making installation simpler.



The Crestar ride combines two of Polin's popular slide elements: a Sphere and a Space Shuttle.



Six Polin waterslides are packed into the small indoor Wave waterpark.

The layout was also specially designed by Polin to work within the special restrictions of the project. The bowl of The Cyclone sits in the very middle of the building and exits riders into a plunge pool on the floor below. With the exception of the Cyclone, all of the slides incorporate dry-out exits on the second floor, with a spiral ramp returning guests back to the third level.

To incorporate The Rapids, the ride was designed with three uphill sections – one with and two without waterjets. Additionally, the building restrictions meant that the heights of all the slides had to be restricted. The Cyclone is 14.62 meters (48 feet) high, and the other five slides are 11.50 meters (37.72 feet) high.

Bilge Pakis, Design Manager of Polin Waterparks, sums up the project this way: “It is a game-changer in its distinctive design, required to fit the facility into a very tight footprint on a site where Franciscan monks originally constructed a cruciform-shaped church in the early 1200s. Over the years, the site’s space became smaller and smaller as history left its marks.”

New centerpiece of the city center

The Wave is managed by CV Life, a public trust that operates several aquatic and fitness centers in the Coventry area that draw more than 1.25 million visits per year. That number will soon increase, with estimated annual attendance at The Wave between

1.1 and 1.3 million visitors. Other existing leisure options include Genting Casino Coventry, which opened in 2012, and the Coventry Transport Museum, which reflects the city’s status as a manufacturing center for British automobiles, and underwent a £7.5 million modernization in 2004.

From a statement by Coventry City Councilor Kevin Maton: “City centers are changing – they are no longer about shopping. They are about spaces where people live, work and have fun. This new facility will be an important part of the new mix for our city center as we strive to make Coventry a top ten city again.”

The Wave is intended as a catalyst to bring locals into the city center and attract tourists from the wider region as well. It is a key component of a multi-million pound undertaking, within the scope of a 2016 master plan for the city center, devised by architectural firm Jerde in conjunction with the City Council.

Also in the works: new residential housing, a retail and entertainment complex with shopping, cafes, cinemas, and a bowling alley; and large areas of public parkland and open gathering places. The latter includes a £2.5 million public space with water features, benches, and stylistic playground equipment that will be placed in front of The Wave. The revitalization of the center city positions the city for 2021, when Coventry will receive the designation UK City of Culture. •••



The Legend of the Gods nighttime show combines live performers, music, artistry and special effects to tell stories of local Chinese culture.

Moving mountains

Weihai Huaxia Scenic Spot grew from one man's determination and love of conservation and culture

by *Martin Palicki*

Every summer night in the mountainsides of Weihai a dragon floats across the sky, a giant waving Buddha rises up out of the rocks and a torrential flood of water cascades over jagged cliffs. On certain nights, it all happens twice.

All are moments from the "Legend of the Gods" show - the centerpiece of the Weihai Huaxia Scenic Spot, and representative of the culmination of 16 years of ecological transformation and cultural conservation.

In the beginning, there were mountains

Weihai, part of Shandong province, sits on the far east coast of China, on a peninsula south of Beijing and north of Qingdao that reaches towards Korea. It has hundreds of miles of beaches as well as thousands of acres of majestic mountains.

In the 1970s much of the mountain ranges in Weihai had been given over to quarries. China's expanding population and burgeoning cities needed construction materials, and Weihai provided the sought-after stone. Though good for progress,

industry and urban development, the quarrying process created many ecological challenges. In addition to removing minerals from the mountains, quarrying also deforested land, dried natural waterways and eliminated acres of wild animal habitat. Visually unappealing and nearly tapped of its resources, the situation in mountainous Weihai looked bleak...until one of Weihai's native sons decided to change all that.

Shandong Huaxia Cultural Tourism Group Chairman Xia Chunting was born to a family of farmers in Weihai. As a young man his entrepreneurial spirit began to emerge. Xia started his first company pouring concrete pipes for construction projects, growing to sell more construction equipment and machines, and eventually becoming a leading supplier of cranes in China.

Having built a large and successful corporation, Xia was well aware of the ecological damage that had been done to Weihai's mountains and he wanted to find a way to give back to the community. He returned to his hometown in 2003 and began acquiring mountainside land that had been decimated by quarries.

“夏”公移山

每逢仲夏之夜，在威海山区必然出现一到两次奇观——龙腾夜空，帝王升起，水泄千里，直击悬崖峭壁。这便是威海华夏风景区巅峰之作——“神游传奇”，它完美诠释了威海16年生态转型和文化传播之旅。

遥想当年，郁郁葱葱

威海，中国山东省地级市，位于山东半岛东端，北，东，南三面濒临黄海，北与辽东半岛相对，东与朝鲜半岛隔海相望，西与山东烟台接壤。海岸线近一千公里，总面积近六千平方公里。

在二十世纪七十年代后期，威海加快了城市建设的步伐，里口山脉西南部的龙山成为采矿的中心矿区。虽然促进了工业进步和城市发展，但采石破坏了生态环境，人们乱砍滥伐，山体变得破碎不堪，天然水道干枯，野生动物栖息地被破坏，资源几乎被耗之殆尽。因此威海的子民决定改变这一切。

华夏文化旅游集团董事长夏春亭出生于威海的一个农民家庭，年轻时就颇有作为。他的第一家公司是制作水泥管，后来业务范围扩大，生产销售建筑工程机械，并最终成为中国全国建机行业领先者。

事业有成的夏春亭意识到家乡威海山区的生态遭到严重破坏。本着回馈社会的初心，他从2003年开始投资用于山体修复，并创办了华夏文化旅游集团。迄今为止，总计投资44.3亿元人民币，成效斐然。在321英亩山体修复工作过程中：

- 使用了56,920,000立方米的填充
- 种植了1127万棵树
- 建造了35座水库
- 景区内建有6条隧道，连接公园的不同区域

看到了照片的前后对比（见下文）才能深切感受到夏春亭给景区带来的巨大变化。

尽管修复工程和之后的旅游景点密切相关，但夏春亭把这两者分得很清。修复工程是给社会的回馈，不以盈利为目的，旨在加强人们的土地意识，弘扬威海的优秀历史文化。夏春亭不仅在山体修复方面有着丰富的经验，他也是著名的摄影师，书法家，诗人以及政治家。他还是备受尊敬的艺术家，深谙中国艺术和传统文化。在他的办公室里，艺术摄影，绘画，诗歌等作品随处可见。

“人们都喜欢美丽的海滩，不太愿意去附近的山区，”夏春亭说。“但是为了传播我们的环保和文化理念，山区也需要吸引观众驻足。”

为实现这一目标，夏春亭在景区内开发了一系列景点，讲述中国威海生态保护故事。

胶东民俗文化馆 – 风景优美的池塘和花园，利用蜡像、声、光等技术，再现胶东历史民俗与风土人情。

海洋馆 – 威海神游海洋世界于2014年开业，以威海渔业文化为背景，客人可以体验海上生活。水族馆重建了历史悠久的渔村，帆船和旧威海的街景。圆顶剧院和海洋体育场定期提供表演。

He started Shandong Huaxia Cultural Tourism Group and began investing in restoring the mountains to their original natural state.

Since 2003, Xia has invested 4.43 billion RMB in the project, and has achieved spectacular results. The 321-acre site required enormous resources for the restoration process:

- 56,927,000 cubic meters of fill was used to reshape the mountain
- 11 million trees were grown and planted
- 35 water reservoirs were constructed
- 6 tunnels were built into the mountainside to connect the different areas of the park

Only before-and-after photos (see below) accurately highlight exactly what a monumental change Xia effected on the landscape.

Although the restoration process and the subsequent tourism site are fundamentally linked, Xia is clear to distinguish the two. The restoration project was a gift to the community, and an expense Xia never expects to recoup financially. The park, however, is a business venture that has the added purpose of bringing awareness to the land (vis-à-vis the restoration project) and the cultural history of Weihai and China. Xia is well positioned to share Chinese culture and wisdom. In addition to the conservation knowledge gained through the reforestation project, Xia is a celebrated artist, photographer, calligrapher, poet and statesman. Huaxia's offices are adorned with examples of Xia's photography, paintings and poems. He is a respected connoisseur of Chinese art, culture and tradition.

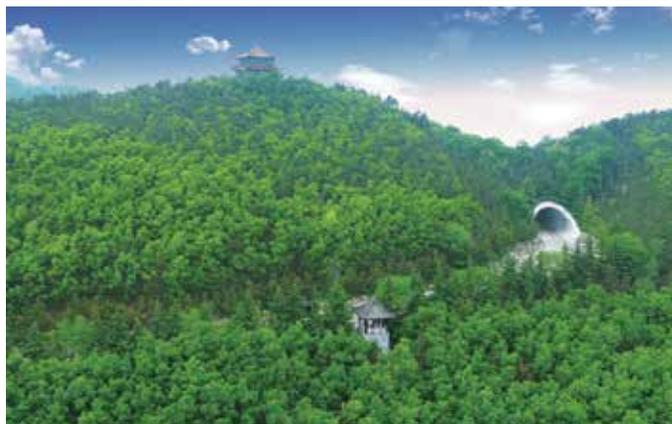
“With our beautiful beaches nearby it can be very difficult to attract people to visit the mountains,” says Xia. “I knew in order to share our message of conservation and culture we would have to create various attractions to motivate people to visit the mountains.”

To accomplish this, Xia developed a series of experiences at the Scenic Spot that tell the stories of Weihai, China and ecological conservation:

Jiaodong Folk Culture Museum – A collection of buildings house exhibits and displays on various aspects of Chinese art and culture. Scenic ponds, gardens and overlooks dot the landscape, providing areas for reflection, as well as views of the Weihai valley below.

Aquarium – Opened in 2014, the Weihai Aquarium features sea life while surrounding guests in scenes from Weihai's fishing culture. The aquarium recreates historic fishing villages, sailing vessels and street scenes from old Weihai. A dome theater and marine stadium offer regular performances.

Weihai People's Air Defense Education Center – Located in a 245-meter-long, and 182-meter-wide quarry, the museum has several areas such as natural disaster experience zone, international defense knowledge zone, Chinese defense airspace zone and urban air defense and nuclear zone ect. It also uses modern sound and photoelectric technology to let visitors experience it by themselves.



Weihai's mountain quarries during Huaxia's conservation process (left) and the same locations after. *Photos courtesy Huaxia.*

威海人民防空教育中心 – 在长245米、宽182米矿坑上建起来的威海人民防空防灾教育馆，馆内设有自然灾害体验区、国际国防知识区、中国防空史区、城市防空以及核生化防护知识、4D电影院等多个区域，采用现代声光电技术，让游客亲临其境，直接参与体验。

神游传奇 – 威海的核心项目——《神游传奇》秀于2010年开放，并于2018年进行了优化。该秀集中展现了华夏五千年厚重的文明传承与自强不息、奋斗不止的民族精神，开创了自然景观与人文景观相结合的实景演艺先河。

威海华夏风景区对生态的保护和文化的关注和中国的目标一致。中国国家主席习近平在2018年曾表示：“我们必须加快建设生态文明体系，确保生态环境得到根本改善。”
(南华早报, 2018年5月20日)

2018年6月12日，国家主席习近平考察了威海华夏城景区。官方的国事访问为威海华夏风景区的文化旅游事业画下浓墨重彩的一笔。夏春亭董事长的愿景，与政府的可持续性发展，减少污染和文化旅游的倡导不谋而合。

神游传奇

夏董事长借神游传奇秀来表达对中华优秀传统文化的敬意。60分钟的实景演艺加入了舞蹈和特效，带领观众穿越到中国古代，领略中华文化之美。夏董事长每年年底修改剧本，优化剧情，目前最新的是2018年版的神游传奇。

剧院建在一个长210米、宽171米的矿坑上，七个场景分别坐落于湖泊周围的景观中。场地中央是一个48米x 28米移动剧院，有2100个座位。剧院形似一艘大船升起移动，旋转到达水陆空船各个场景，锁定观众视线。

节目少有对白，多由旁白讲述，观众席两侧的LED屏幕附有中英文字幕。船型剧院旋转穿过湖泊，每经过一个场景就开始讲述相关故事。

表演过程中惊喜不断，令人激动不已。其中一幕，演员们从水中蹿到剧院前的平台上与观众互动。下方有两个长长的桥墩在船前摆动，旁边站着演员和会发光的鼓。湖泊后面的“火山”在鼓手的击打中逐渐爆发。

另一幕，霓虹灯布满山坡，好似繁星闪耀，亮如白昼。随着旋转的船型剧院映入眼帘，在烟花绚烂的夜空，演员纵情飞舞盘旋在观众上方。

结尾一幕令人唏嘘，5000吨黄河水从山腰处喷涌而出，气势磅礴，在船前嘎然而止，倾泻于湖泊之中。

“神游传奇”与其说是表演，倒不如说是骑乘。观众坐在船上旋转剧院，像黑暗骑乘一样，穿越200米湖泊，到达每一特定场景。移动剧院非同一般，尤其是考虑到大部分设备不仅要承受威海的冬寒夏热的极端天气，还必须在水下作业。夏董事长为移动影院发明了这项技术，持有37项专利。

传奇影响力

“神游传奇”是夏春亭的第一场秀，威海是华夏的第一个旅游胜地。它们相得益彰，为华夏景区的发展打下了坚实的基础。华夏在厦门的《闽南传奇》秀也受“神游传奇”的启发，将其优秀技术应用到室内剧院。厦门的这个场地还展示了华夏高度主题的展品，详细介绍了中国和当地的文化。



The Legend of the Gods theater is a 2,100 seat moving platform designed to appear as a boat floating across the water.

The Legend of the Gods – This nighttime show and centerpiece of the Weihai project opened in 2010 and was completely overhauled in 2018. The show speaks to the generations, tracing ancient creation legends and the development of Chinese and Weihai culture. It emphasizes the importance of land and nature.

Weihai Huaxia Scenic Spot’s focus on conservation and culture also aligns with China’s government goals. In a 2018 meeting, China’s President Xi Jinping commented, “We must speed up the construction of a system of ecological civilization and ensure that the ecology and environment are fundamentally improved.” (South China Morning Post, May 20, 2018.)

The park was also honored with a visit from President Xi Jinping on June 12, 2018. The official state visit not only helped place Weihai Huaxia Scenic Spot on the tourism map, but also confirmed that Xia’s vision of sustainability, reduced pollution and cultural tourism matched the government’s.

The Legend of the Gods

Chairman Xia developed the Legend of the Gods show as an homage to Weihai’s fishing heritage. The multimedia nighttime spectacular combines live actors, trained animals, moving sets and special effects into a 60-minute show that guides guests through ancient Chinese and Weihai culture. During Weihai’s winter months, Xia updates and adds to the show, and every few years completely rewrites the show, with the most recent version debuting in 2017.

The theater is set in the site of a 210-meter-long and 171 meter-wide quarry with seven different sets built into the landscape surrounding a lagoon. The heart of the venue is a 2,100-seat 48m x 28m moving theater. Designed to look like a large boat, the theater lifts, moves and rotates to various points in the lagoon, focusing the audience’s attention on specific scenes. Action takes place on land, in the water, in the air, and on the boat itself.

Much of the show happens without dialogue, though each scene is set up by a narrator. LED screens on each side of the audience display English and Mandarin subtitles. As the boat rotates and moves across the lagoon, each scene unveils a new chapter in the story.

Dramatic “wow” moments happen regularly throughout the show. In one scene an actor rises up out of the water on a water-powered rocket board directly in front of the theater while costumed characters engage with audience members. In the water below, two long piers swing out in front of the ship, lined with performers and illuminated drums. As the musicians begin to beat the drums, the mountain behind the lagoon begins to erupt into an explosive volcano.

In another scene, the boat rotates to reveal the reforested mountainside covered with twinkling LED lights. The distinction between land and sky disappears as the lights twinkle like the stars above. At other moments in the show, performers fly above the audience on wires while fireworks illuminate overhead.

Perhaps the most lasting impression occurs near the end of the performance when the Yellow River is unleashed from the mountainside, sending 5,000 tons of water down the rocky mountain towards the audience. The volume of water is staggering and the amount of power it carries with it is evident as water crashes into the lagoon just in front of the boat.

In a sense, Legend of the Gods is almost as much of a ride as it is a show. Seated on the boat theater, guests travel the 200m length of the lagoon as the theater rotates and moves into position for each scene, just as a dark ride vehicle does. Creating that moving show vehicle was a major accomplishment, particularly considering that much of the equipment must withstand not only Weihai’s hot summers and cold winters, but also must operate underwater. Chairman Xia invented the technology for the moving theater, and many of the 23 patents he holds for the show center around those components.

该公司的第三个节目“驼铃传奇”于2017年在西安开幕[见“Legends, Camels and ACE,”，“InPark杂志第76期，2018年12月]。驼铃传奇进一步扩展旋转移动影院概念，巨型圆顶剧院内设有3,000个座位，并使用了最新的AV技术。

事实上，《闽南传奇》和《驼铃传奇》节目中的许多先进技术都可以在2018年版的神游传奇中有所体现，例如旋转舞台。这一系列节目发展渐趋完善，并相互赋能。

然而，“传奇”系列并不打算止步于此，夏董事长设想在国内外增设场地和制作。“这对我来说很重要，我们不但要与国人分享中国文化，还要向世界各地的人们传播中国文化——甚至拉斯维加斯，”夏先生说。目前来说，中国仍然是主要根据地。据夏董事长介绍，中国几个主要城市也在积极参与华夏集团文化旅游目的地建设，他们的下一个重点城市是中国东部江苏省的首府南京。

夏董事长很重视威海废弃矿山重建的填埋工程，并开玩笑说“我的生命中有四分之一的时间用于重建这座山”。

虽然山区表演建设工作已经完成，但是夏春亭的威海愿景还在继续，华夏正在开发威海的两个独立项目。第一个围绕当前的华夏城景区公园，建设生态文明展馆、生态文明培训中心和主题酒店等多个项目。该生态文明展馆的设计重点是宣传生态和环保。内部有一个主题黑暗骑乘和飞行剧院。该地区还设有一个宠物动物园，以亚洲部落文化为主题。华夏在这些合并项目中投资23.5亿元人民币，目前正在建设中。

华夏的第二个威海项目不在景区内，而是靠近威海的中央火车站。《梦海传奇》坐落在一个新的室内剧院中。“它将建立在我们已有的基础上，并利用最新的技术创造出令人惊心动魄的体验，”夏说。这项价值18亿人民币的演出预计将于2022年开幕。

文化传播

尽管一路披荆斩棘，历经艰难险阻，夏春亭最终实现了他的威海愿景，并且成果丰硕，令人称赞。这个为期16年的项目范围广，影响深远，对威海意义重大。如今的威海空气清新，山水秀美，更因其文化旅游事业而广受赞誉。华夏城景区2017年被政府评为5A级景区。

夏董事长对威海所取得的成就感到自豪，但他仍然很谦虚。“对我来说最重要的是留下文化传承，”夏春亭解释道，“我爱中国文化。我最大的价值莫过于让我们的子孙后代能够理解和体会中国文化之美。”

以神游传奇为例，夏春亭似乎也希望观众能在娱乐和惊喜中，对这个“移山”的文化遗产心生敬意。 ● ● ●



Shandong Huaxia Cultural Tourism Group Chairman Xia Chunting

Legendary Influence

“Legend of the Gods” was Xia’s first show and Weihai was Huaxia’s first tourism destination development. It’s important to understand just how foundational they both were to creating Huaxia’s portfolio of cultural attractions. Legend of the Gods inspired the company’s next show in Xiamen “Legend of Min Nan.” That show borrows many of “Legend of the Gods” technologies and transferred them to an indoor theater. The site in Xiamen also features Huaxia’s highly themed exhibits detailing Chinese and local culture, along with a Buddha fountain show.

The company’s third show, “The Legend of Camel Bells” opened in Xian in 2017 [See “Legends, Camels and ACE,” InPark Magazine issue #76, December 2018]. Camel Bells expands even further on the rotating moving theater concept with 3,000 seats inside a giant domed theater with the latest in AV technology.

In fact, many of the advances in technology from the Min Nan and Camel Bells shows have made their way back to the Legend of the Gods show during its most recent 2017 renovation. Like the rotating theaters at the heart of each production, the series of shows has come full circle, each inspired by and informing one another.

The “Legend” series continues, however, with more shows in the works. Chairman Xia envisions additional venues and productions around China, and even abroad. “It’s important for me to share the Chinese culture not only with my own people, but with others around the world – possibly even to Las Vegas,” teases Xia. In the near future, China remains the focus. According to Xia, several major Chinese cities have been offering incentives for Huaxia Group to create cultural tourism destinations, and their next focus city is Nanjing, capital of China’s eastern Jaingsu province.

In Weihai, Chairman Xia largely considers the reclamation work on the mountain finished, joking that “one-quarter of my life has been spent rebuilding this mountain.”

While the mountain restoration work is complete, Xia’s vision for Weihai is still being executed. Huaxia is in development on two separate projects within Weihai. The first centers around the current mountainside park and includes new food locations in the park, a hotel and an education center. The education center is designed with a focus on ecology and conservation. Inside, visitors will find a themed dark ride and flying theater. A petting zoo is also planned for the site, using Asian tribal culture as a theme for the experience. Huaxia is investing 2.35 billion RMB in these combined projects, which are currently under construction.

Huaxia’s second Weihai project is not located on the mountainside but instead will be close to Weihai’s central train station. “Legend of Dreams and the Sea” will be housed in a new indoor theater. “It will build on what we have created here and take advantage of the latest in advanced technology to create a thrilling and exciting experience,” says Xia. The 1.8 billion RMB show is expected to open in 2022.

Sharing culture

Executing Chairman Xia’s vision for Weihai Huaxia Scenic Spot hasn’t been simple, but it has been satisfying. The 16-year project is monumental in both scope and effect. Weihai is now highly regarded for its clean air and water and its commitment to cultural tourism. Huaxia’s property is recognized with a high level 5A rating from the government and is in TripAdvisor’s Top 15 Things To Do in Weihai list.

Chairman Xia is proud of what he and his company have accomplished in Weihai, but he is still humble. “Most important to me is leaving a legacy of culture,” Xia explains. “I love Chinese culture and nothing is more valuable to me than to be able to leave that for future generations to understand and experience.”

If Legend of the Gods is an example, then it seems he also wants them to be entertained, amazed and a little bit in awe of this Chinese legacy that has moved mountains. •••



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《驼铃传奇》
Legend of Camel Bells

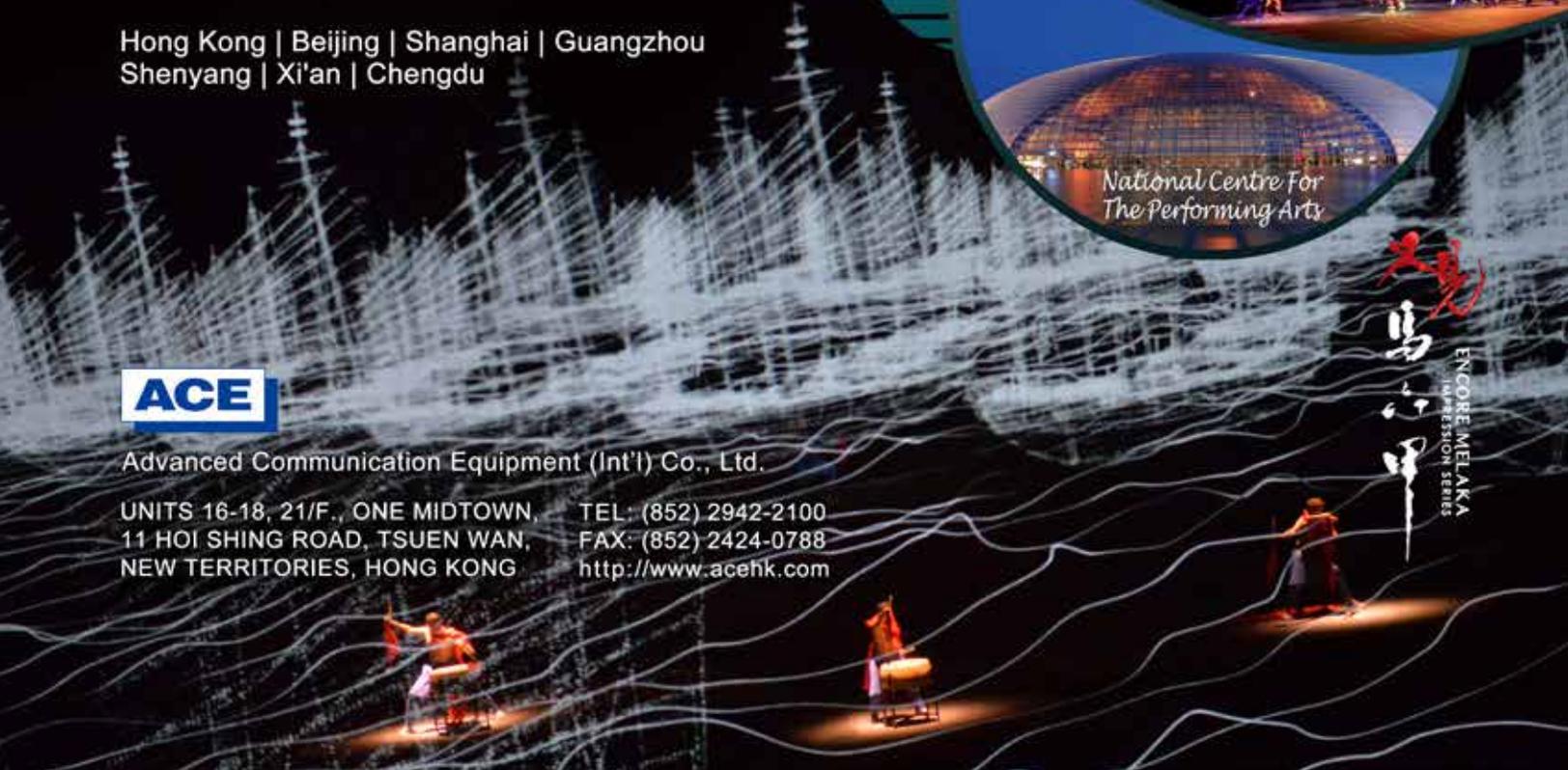


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