



in park
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PGAV Destinations: The power of “We” and creative collaboration



The Dubai Double

The Middle East's playground is gearing up for Expo 2020

Thea mania

Special section on 2018 Thea award recipients

Laser focus

Christie's passion, quality and consultative approach

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Annual recognition

Martin Palicki,
IPM publisher



The Dubai Double

Judith Rubin,
IPM editor



This issue is full of doubles! In addition to being The Dubai Double (see Judy's editorial), we are presenting a special collection of articles highlighting the TEA Summit and Thea Awards. They are two action-packed events taking place April 5-7 at the Disneyland Resort in Anaheim, California.

The Theas and Summit also do double duty. In addition to providing a forum for professional growth and development, the events also provide a critical opportunity to network with industry colleagues, both vendors and operators.

This issue, with its highlight on Thea projects and info on the Summit, will be distributed to every attendee at the Summit. InPark will also be there, covering the events, snapping photos and doing a little networking of our own.

TEA's events are a valuable tool for professionals to keep their finger on the pulse of the industry, but they are also a resource we at InPark use to help identify key stories for the balance of the year, so if you have ideas to share, be sure to look for us during the TEA Summit or Thea Awards Gala.

Welcome to the first print issue of InPark for year 2018!

This edition you are now reading is the first part of the "Dubai Double" – InPark print issues #71 and #72. Both are getting into the hands of your industry colleagues – perhaps your next client or team member - at trade events in Dubai: the DEAL show, (April 9-11) and the Theme Parks & Development Forum (May 7-9).

We do our best to share information and be a point of connection for you: in multiple sectors of the attractions industry: theme parks and waterparks, museums, science centers, world's fairs, zoos & aquariums, planetariums, corporate branding centers, multimedia spectacle, specialty cinema, design, land development...

InPark's original coverage includes market analysis, entertainment technology and product news, company profiles, project case studies, thought leadership and much more.

See our full editorial calendar at inparkmagazine.com and participate! We want to hear from you.



COVER: PGAV Destinations believes in the importance of teamwork and creating an environment conducive to exploration. Their recent office renovation in downtown St. Louis, Missouri, includes several open concept spaces for team members to refocus, find inspiration, or engage in one of PGAV's famous Nerf gun battles. p 18



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.

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Relationships, passion and quality

Christie's laser focus on themed entertainment

by Judith Rubin

It used to be a familiar refrain at a trade show: Stop by a manufacturer's booth, ask where their product had lately been installed and how it was being used. Usual response: "We'd love to share this information, but we really don't know where our product ends up. We don't know where the dealers are placing it, and we don't have a relationship with the end user."

But times have changed. To better address vertical markets, some manufacturers have adopted a more direct, collaborative approach to doing business. Christie is an outstanding example. Christie knows who is using their products (and how), and they have more of a direct influence on that fact than a decade ago. They publish case studies and press releases. They cultivate partnerships, dialog and collaboration with owners, operators, integrators, creatives and a circle of early adopters.

Themed entertainment, giant screen and museum markets are served by Christie's Location Based

Entertainment team, helmed by senior director of sales Bryan Boehme, who said, "As our markets matured, it became important to us to find out more about what customers were doing with our product, to make sure it was meeting specific needs."

End users were reaching a similar conclusion at the same time. "They have requested closer relationships, better understanding, how to be more of a partner, and how to make better tech decisions further in advance," said Boehme. "Now, we have intimate conversations and collaborative sessions that help us understand their direction. We are able to develop and plan for technology that anticipates their needs 2-5 years out, and we are offering more complete projection and display solutions that include support with processing, playback devices, software and projectors. The end users know we're there for them. The big names come to us." (As of July 2016, Christie inked a Corporate Partnership agreement with Universal Studios.)

Above: Christie teamed up with TCL Chinese Theatre in Los Angeles to deliver an intricate and richly hued permanent projection mapping show on the iconic cinema's façade. Photo courtesy of Christie Digital

“We keep the dialog going on all fronts,” said Larry Howard, senior regional sales manager (Americas) – theme parks and giant screen experiences. Howard has been in the operator’s position as well as the integrator’s in the course of his career. “At times, the relationship between owner and manufacturer needs to be direct,” he said. “When I worked for Universal, I saw that. There’s the potential for things getting lost in translation with a third party. But there is also significant value to having dealers in the middle, and when I worked as an integrator, I saw that. Our relationships with integrators, system designers and media developers help us in building products, software and services that support what’s happening in the design process, hardware, installation, operations and maintenance after a project is up and running.”



Larry Howard and Bryan Boehme

Listening is key

From this writer’s perspective, having covered these specialized markets for three decades, it’s been educational and gratifying to watch Christie build its team and establish itself, bringing in products that have helped provide real solutions for cinematic and media-based platforms in entertainment and education.

As planetariums have upgraded from optomechanical systems to full-dome, as giant screen theaters have converted from 1570 film to digital projection, as standards of cinematic display have been raised across the board and continue to be raised, Christie has worked to understand and meet these demands - in areas such as stereoscopic 3D, projection mapping, high frame rates, high resolution and color saturation – and to be ready for the next levels.

Customer-driven evolution

Christie has gone from being a manufacturer of projectors to a provider of projection and display solutions, with software tools, video processors and interactive servers in order to offer integrated products that help its customers throughout the design, installation and service phases of a project. This whole-product approach, said Larry Howard, enables the company to fulfill industry needs by “bringing a greater level of security and comfort to our customers. There’s just one throat to choke for the entire display solution. It becomes our responsibility from end to end, and actually reduces our risk and allows us to deliver better solutions.”

Problem solvers

- With ever more spectacular visual experiences entertaining park and attraction guests year after year, and the ever more complex projector setups required to deliver them, Christie developed Mystique – described as a full suite of software, hardware and services designed to simplify and de-risk projects, and “maintain day-one show quality day-in, day-out without the headaches.”
- Christie’s 2015 acquisition of coolux added real-time media control to their product lineup with the Pandoras Box suite of media servers and players. According to Christie, Pandoras Box

integrates with any Christie projector, and will pair up with Christie’s video processors for an “end-to-end solution.”

- Harnessing the power of standardized SDVoE (Software Defined Video over Ethernet) technology, the company introduced Terra in 2017. Christie describes Terra as a new range of controllers, transmitters and receivers that ushers in the shift to standardized AV distribution – AV-over-IP – enabling the transport, processing and control of uncompressed, zero-frame latency, artifact-free AV content over affordable 10G networks. “Terra allows for the design of simple, flexible and highly-scalable system architectures that offer improved performance and visual experience over current approaches at a drastically lower cost of ownership.”
- Also in 2017, Christie launched what it bills as the “most powerful multi-screen windowing video processor on the planet” – the Spyder X80. Engineered with direct feedback from Christie’s customers, Spyder X80 is said to offer “unmatched processing power in true 4K@60Hz performance across multiple displays enabling the creation of never-before-seen visual experiences.”

High-profile recent installations

Liberty Science Center, Jersey City, NJ – The new **Jennifer Chalsty Planetarium** opened in January 2018 and is ranked the largest planetarium in the Western Hemisphere. It is powered by Evans and Sutherland's groundbreaking True8K™ Digistar 6 system featuring 10 Christie Boxer 4K 30,000 lumen projectors for a total brightness of 300,000 lumens, and a NanoSeam dome.



The all-new Jennifer Chalsty Planetarium and Giant Dome Theater has brought state-of-the-art digital dome projection to Liberty Science Center (Jersey City, NJ) and vastly expanded its programming options. It is equipped with 10 Christie projectors. Photo courtesy of Liberty Science Center

TCL Chinese Theatre, Hollywood, CA – Christie joined forces with TCL to captivate visitors and moviegoers with an impressive, high-impact, permanent projection mapping show on the theatre's facade using Christie projection technology and Pandoras Box show control system.

Museum of Science and Industry, Chicago, IL – Installed by D3D Cinema and Christie, MSI's five-story domed theater features 150,000 lumens in 6K resolution with high frame rate capability, powered by three state-of-the-art Christie RGB laser projectors.

The company culture, the passion and the mission are consistently there in the words and actions of every Christie team member this writer has conversed with. And it's hard not to bump into Christie people and products as they have fully, and successfully, embraced this vertical and made their presence ubiquitous within conferences, associations and trade exhibitions as well as their own events.

On a recent visit to Christie's Kitchener, Canada headquarters, the consistency and passion were again evinced on all fronts – on the projector manufacturing floor, by product managers, engineers and R&D staff – and in the level of detail, quality and awareness of market needs evident in the product demonstrations and displays.

The attractions industry community first captured Boehme's intense interest at the annual Summit of the Themed Entertainment Association (TEA). "I was inspired by the level of passion people have in this business, where you must continually reinvent yourself," said Boehme. [See p. 40 for more about the TEA Summit]

Boehme and his team set out to listen and learn, and they have done so. It is apparent that, as Christie pursues its quest to cover the world in pixels, it receives support from within the company at all levels. Howard said, "We have marketing specific to the market, we have a sales group specific to the market, we have engineering and product development that are specific to it." Boehme and Howard would tell you that their own enthusiasm and passion simply reflect back the dedication that characterizes the markets they serve.

Longevity, management and leadership

Christie was founded in 1929. Companies don't persist for nine decades by accident; in fact, the typical company lifespan has become much, much shorter. Experts cite technological disruption and say that nowadays companies need to be willing to exit old businesses and boldly enter new ones.

Writing in Forbes ["How to create a 100-year company," April 2013], entrepreneur and leadership coach David K. Williams encourages building "organizations that endure instead of...ventures to flip." When a company invests in its employees, states Williams, employees will return the investment, resulting in "character and principle-based companies that ... make for lasting organizations and lasting relationships" and exhibit the traits of respect, belief, loyalty, commitment, trust, courage and gratitude. "...Relationships and partnerships with customers and communities are rock solid, and they produce tremendous returns."

The late business management guru Peter F. Drucker (1909-2005) was known for his emphasis on human relationships in business, as opposed to number crunching. The business management institute named after Drucker cites the following five categories in which a business should excel: customer satisfaction, employee engagement and development, innovation, social responsibility and financial strength.



Advanced manufacturing in a cleanroom environment at Christie's Kitchener, Canada facility. Photo courtesy of Christie Digital

The Trillium Network for Advanced Manufacturing Ltd., a non-profit dedicated to supporting the growth of manufacturing in the province of Ontario, Canada, published this testimonial in 2015: “The core of Christie’s business is the advanced manufacturing of its projector product lines at its Kitchener, Ontario facility. Christie’s production floor more closely resembles a laboratory environment than a factory. The floor is maintained to a class 10,000 cleanroom standard, meaning the area is designed never to allow more than 10,000 particles per cubic foot of air - an astonishing production feat, given that the average cubic foot of urban air contains around 35 million particles. Yet this standard is at the root of Christie’s company culture, where product quality is paramount and precision manufacturing is a must.”

“I am in the industry that I know,” said Howard. “Since I started with Universal in ‘89, I have been pretty much in or associated with entertainment and theme parks. From a personal standpoint, I work with people I know or have known over 25 years now. The best thing in any profession is that you continually grow, with new challenges all the time. Complacency is an impossibility; slow down and you get run over. We are always moving, always learning. I have always thrived on that. I don’t think I’ve ever had a pair of shoes with any grass growing on them.”

“The client wants to reduce cost, and that’s a key driver of innovation in technology in addition to quality,” says Boehme. “Christie is doing important innovation in laser projection technology, which includes RGB laser, the ‘true laser’ in contrast to laser phosphor; in making a larger color palette, in HDR capabilities; and in adding capabilities to products to reduce the cost of operations and maintenance while expanding the range of creativity.” Boehme continued, “We’re thinking about all the different

creative canvases: staging and events, live shows, touring shows, theme parks and attractions, projection mapping, the high end of digital signage and more. It’s healthy to be stretched beyond our comfort zone. It’s how you grow and get better. It’s how we are inspired and exhilarated. We love to listen to customers and figure out how best to serve them tomorrow.” •••

Creative collaborations

Billy Lynn’s Long Halftime Walk – Celebrated film director Ang Lee is known for both his dramatic storytelling and adoption of new technologies. For Billy Lynn’s Long Halftime Walk (directed by Lee and released in 2016), about a soldier who fought in the Iraq war, Lee decided to push the technological boundaries in order to give the film an “immersive” and “realistic” experience of the reality and emotional journey of soldiers. The movie was shown at select venues in stereoscopic 3D and 4K resolution at 120 frames per second per eye using Christie’s Mirage 4KLH 6P dual-head RGB laser system - the only projection technology capable of displaying the director’s vision as intended. It is the first-ever feature film to be shot in such a high frame rate and the lucky few who were able to see this version of the movie were treated to a memorable, visceral experience.

Coachella Valley Music and Arts Festival, Indio, CA – Christie partner Obscura Digital lit up The Antarctic Dome at Coachella using 15 Christie Boxer 2K30 projectors. The 120-foot dome offered a 360-degree projection surface, wowed audiences throughout the festival weekend and won Obscura Digital the award for “Best Use of Technology at a Festival” at the first annual Everfest-XLIVE FestX Awards, presented in December 2017.



Obscura Digital used 15 Christie projectors in their Antarctic Dome during the annual Coachella Valley Music and Arts Festival in Indio, CA, wowing audiences and earning themselves a FestX Award. Photo courtesy of Obscura Digital

DEAL Makers

Dubai prepares to host the 24th edition of the DEAL Expo

Interview by Martin Palicki

In April 2018, the Dubai Entertainment, Amusement and Leisure (DEAL) Show returns to the Dubai World Trade Center for its 24th edition. InPark asked Sharif Rahman, CEO of International Expo-Consults (show organizers) what people can expect at this year's show and in the region.

Why is DEAL particularly important for the themed entertainment industry?

Dubai has become a hub for theme parks and leisure zones and is setting an example for not only the region, but for the industry. Several theme parks operate in the UAE and more are due to open in 2018. This is the big step in the UAE's tourism strategy and the single biggest driver of growth in the hotel market for the next five years. DEAL has been supporting the industry and its stakeholders, year-on-year and has grown with the market.

Do you find attendees to the show are coming from a wide variety of locations?

Visitors to the show come from various countries across the world including the Americas, Europe, Asia, Africa and the Middle East. Diversity is observed not just in the geography but the profile of the visitors as well. You will observe the trade visitors include owners, managers, operating staff etc. from malls, real estate, architects, contractors, consultants, investors, tourism officials etc.

What types of venues are most popular in the Dubai region? FECs? Parks?

The biggest challenge for the industry is the weather. During summer months in the desert, temperatures are very high. FECs and indoor parks and venues provide shelter and entertainment for consumers in these months.



Sharif Rahman, CEO of International Expo-Consults
Image courtesy of DEAL

Most of the year isn't favorable, climate-wise, for classic theme parks, and thus the industry is very cyclic in nature.

FECs have witnessed recent increases in popularity, having become an integral part of the shopping mall experience. The leisure and entertainment experience FECs provide in malls has encouraged repeat visits.

Are preparations for the 2020 world's fair that will be hosted in Dubai having an impact?

Expo 2020 has been a blessing for tourism and for the entertainment and leisure industry. Due to preparations for this global event, Dubai has witnessed a huge increase in infrastructure development. With increased development of malls and hotels to accommodate the Expo's expected 25 million attendance from 180 nations, the industry is set to grow in the coming years.

What should visitors be sure to experience while they are in the UAE?

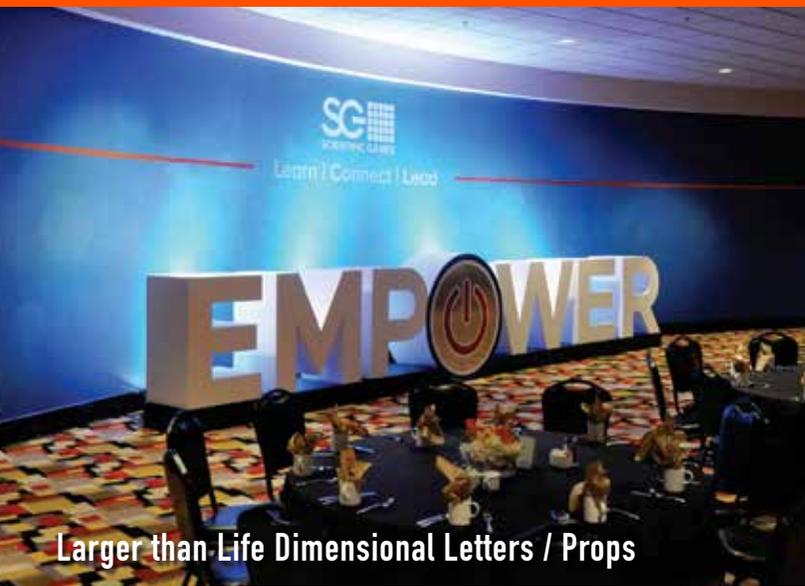
Dubai is a top tourist destination in the region. There are a number of attractions that can be visited during your stay in Dubai. To name a few, you can go to the top of Burj Khalifa, the tallest building in the world, to catch a bird's-eye view of the city. If in a mood to splurge, you can enjoy the underwater suite in the world's only 7-star hotel – Burj Al Arab. Dubai has some of the best stretches of desert to go "dune bashing" or ride an all-terrain vehicle or a camel, after which you can enjoy a lovely dinner in a Bedouin camp and even spend a night in the desert. Dubai offers a

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variety of adventure sports like zipline, sky diving, water sports, scuba diving and other activities in some of the most beautiful beaches in the region.

Does the region's changing political climate impact tourism and the entertainment sector?

The political climate of the region has minimal impact on the tourism and entertainment sector of Dubai. It is one of the most safe and peaceful areas in the world. Recently Euromonitor ranked Dubai as the most-visited city in the Middle East and placed it sixth in the world in the latest global ranking of tourist destinations. It is the only Middle Eastern city in the top 10 and is expected to attract more than 26 million visitors by 2025, overtaking London, which is currently in third place.

How should people register for DEAL and are there any offers for signing up by a certain date?

People who wish to attend DEAL 2018 can pre-register online at <http://bit.do/DEAL2018>. We will be running promotional discounts for airfare and hotel stay, via our



Jean-Christophe Canizares, Emmanuelle Charotte and Julien Causeret staff the ECA2 booth at DEAL 2017

website, and we will also be sharing details about the promotions on social media. On Facebook - @dealmiddleeast; Instagram - @dealiec; Twitter - @DEALIEC. •••



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Watch out for that cliff!

With new Dynamic All-Terrain Dark Ride, trackless ride tech shifts into high gear

By Rona Gindin

Over the past two years, the team at Dynamic Attractions could be found piling mounds of dirt outside their Orlando Development Center offices, then driving over and around them in peculiar-looking vehicles. Inside, in stealth mode, engineers, creatives and tech experts tinkered with military-grade technologies, determined to adapt them for theme park rides.

On November 14, 2017, from the Dynamic Attractions booth at the IAAPA Attractions Expo in Orlando, the company unveiled the result: the “Dynamic All-Terrain Dark Ride.” It incorporates a trio of systems to deliver new ways to create and experience rides, and to inspire designers, producers and operators to climb to new heights of creative innovation.

“Show programming with concrete”

The Dynamic All-Terrain Dark Ride is a vehicle-based, attraction ride system having neither tracks nor rails, available with four or six seats per vehicle. Riders will be in free-roaming, ATV-like vehicles that can climb up and down steep barriers, traverse wet or dry ground indoors or out; they can revel (safely) in a variety of hair-raising experiences and thrills – such as simulated collisions

and near-misses with other objects that can include animatronic figures, animals, aliens or even other guest vehicles. Dynamic Attractions sees this as a creative team’s dream lineup of products with which to create a new genre of attractions and guest experiences.

The technology allows guests to have a more authentic physical experience, delivering sensations that no longer need to be simulated. “If you want your guests to feel like they’re going down a set of stairs, then you just build a set of stairs,” said George Walker, Senior Vice President, Creative Services. “You are essentially show programming with concrete. In my experience, this industry has never really had an attraction that can do something that for-real.”

Smart and safe tech

Multiple technology advances are what made the Dynamic All-Terrain Dark Ride a reality, according to Mike Haimson, Vice President, Technology Development, who said, “Our system allows for the cars to wander through an arena, trackless, without unwanted contact with another object. Several vehicles might be in the same space at the same time, like bumper cars without any bumping. We



The All-Terrain Dark Ride from Dynamic Attractions is shown here in testing phase, navigating a real set of stairs. Photo courtesy of Dynamic Attractions



IPM’s Martin Palicki gets the G.I. Joe treatment at the Dynamic Attractions booth during IAAPA 2017. The IP branding was presented alongside the All-Terrain Dark Ride models. Photo: IPM

have 100 percent control over the environment, so we can make riders feel as if they're out of control." Haimson noted that the ride system includes redundant safety systems developed to meet high industry standards.

Advances in battery technology were key to successful development of this new product. Each vehicle has a light, powerful battery, similar to those used in electric cars. They can be charged quickly after every ride.

"The vehicles also have suspension systems and tire treads that allow them to drive over boulders and other obstacles such as water, debris and sticks," Haimson said. "Our system is smart enough to determine what belongs in the attraction and what does not."

The on-board audio system can provide another level of anticipation. Much like a smart vehicle, the vehicle can be programmed to issue warnings as, for example, the attraction path approaches a mountainside cliff. Guests might hear a voice say, "Alert, cliff ahead" while the ride activates a safety device. This illustrates how the Dynamic All-Terrain Dark Ride is poised to allow entirely new types of experiences – to cover new dark ride terrain, so to speak - by narrowing the gap between simulation and

reality. "There are lots of vehicles in the world that do dangerous things, like race cars that go fast and ATVs that climb up the sides of mountains," Walker says. "Most people don't get to experience those sensations. The Dynamic All-Terrain Dark Ride allows the average guest of almost any age who can fit in the seat to experience something rather precarious through a system that is safe, and get the illusion of extreme excitement in way that has never been possible in the theme park world before."

Hitting the road

Typically, rain, fog and other water features in dark ride environments can interfere with trackless technology, points out Cindy Emerick, Vice President, Business Development. But not so for this product, she explains. "With our ultra-wide-band, military-grade, radio frequency technology, these features no longer affect communication," she said. "Creative people can now deliver whatever environmental preferences they dream of."

Emerick further noted that the vehicles have a significant range of variable speed, which enables programming bursts of acceleration into the experience. "Action will

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You've got options

Dynamic continues to offer many options including more traditional dark ride systems that the company has worked to endow with greater capabilities, using some of the same technology advances that power the Dynamic All-Terrain Dark Ride. These include the “Dynamic Motion Dark Ride” and “Dynamic Classic Dark Ride.”

The Dynamic Motion Dark Ride, an omni-directional vehicle, combines free roaming capabilities with a motion base. This is positioned as ideal for a story that doesn't involve a vehicle from the “car” family. For example, “If the story is about a boat, spaceship, or riding on top of a spider, the Dynamic Motion Dark Ride is the answer,” said Walker. “The motion range of the Dynamic Motion Dark Ride would mimic any desired mode of transportation as desired by creative.”

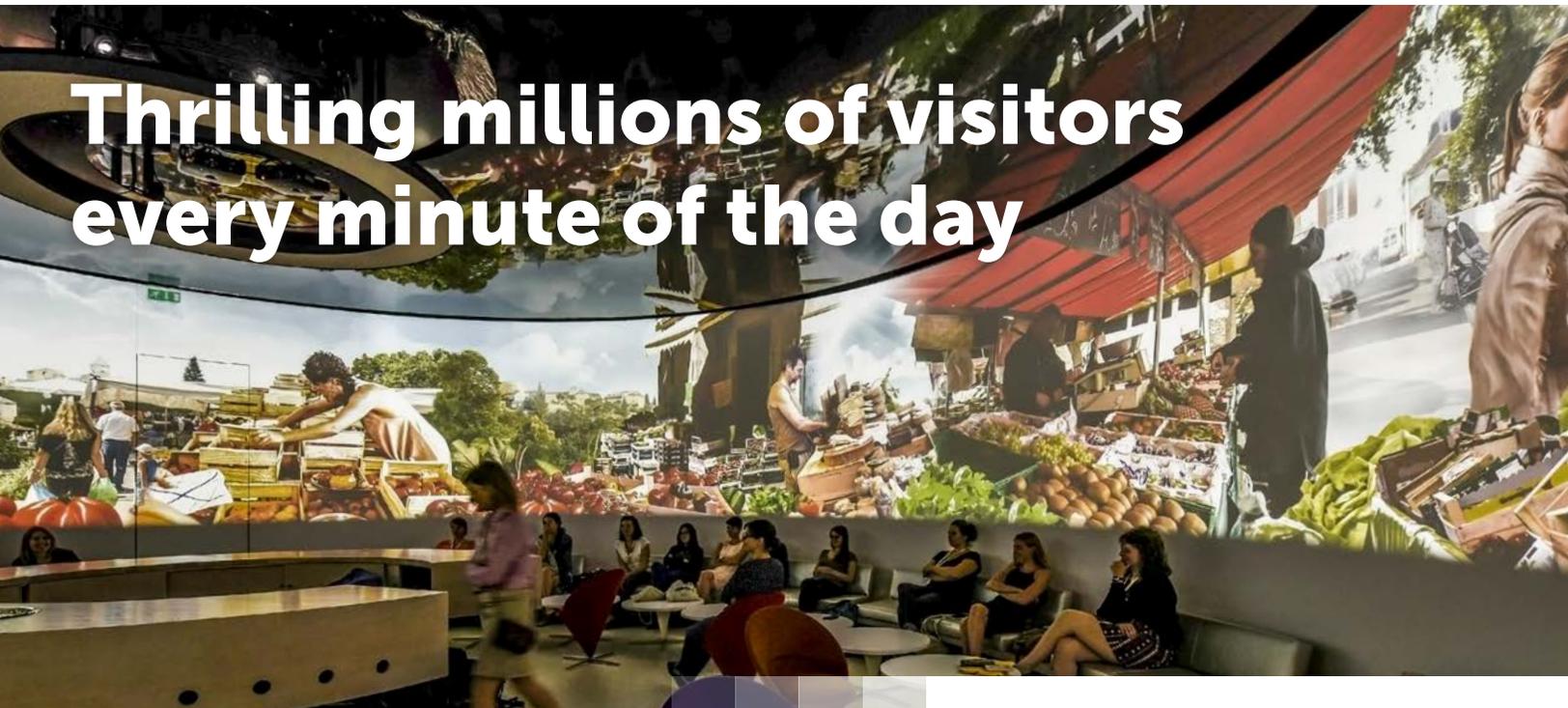
One option of the Dynamic Motion Dark Ride uses a unique wheel configuration that gives it what Haimson describes as an unprecedented range of trackless freedom. “The system can move forward, back, diagonal,

and left and right seamlessly,” said Haimson. “It has the ability to drift and to do end-over-end motions, and incredibly complex motion paths that you couldn't otherwise simulate.”

For its part, the Dynamic Classic Dark Ride is packed with upgrades from more traditional tracked and trackless vehicles. “It doesn't require a super-flat floor, it has more powerful motors to deliver more variable speeds, it's still capable of 360-degree rotation, and it has the ability to be a true autonomous attraction,” Emerick said, explaining how it is a step up from tracked vehicles.



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Dynamic Attractions' All-Terrain Dark Ride vehicle prepares to navigate a set of concrete stairs. Photo courtesy of Dynamic Attractions

feel more intense. Riders will feel the air hitting them because they will actually be moving fast and feeling the motion from the terrain of the road. The beauty of this family of vehicles is that it delivers a new anticipation level to dark ride attractions, there isn't a track or path visible to the riders. They will not be able to guess the next maneuver – a true adventure!”

“We're bringing an untethered ride to market. We believe this is a game-changer for themed entertainment and that Dynamic has set a new benchmark for innovation,” said Guy Nelson, Dynamic's CEO. “The word ‘can't’ is not in Dynamic's vocabulary. Integrating new navigational and vehicle production technologies with a road car like fit-and-finish, to work affordably in the theme park industry was a huge challenge - but our motto is anything you dream, we can build. This is daunting at times, but we wouldn't have it any other way.”

“Options abound in this new product, beyond current concepts of theming,” said Walker. “My creative colleagues in the industry will have virtually no limits in creating their own ideas and environments to design. I'm very excited about the conversations we're having around the Dynamic All-Terrain Dark Ride, and all of our ride systems. Dynamic's family of dark rides has something to help realize all visions and concepts.” •••



Rona Gindin (rona@ronagindin.com) writes about tourism, business, travel, restaurant and lifestyle issues. Her work has appeared in Zagat, foodnetwork.com, Brides, Parenting, Endless Vacation and other publications and websites.

The Power of “We”



PGAV and the art of Destinology

by Judith Rubin

Team culture is intrinsic to the development of visitor attractions, where so many different disciplines, needs and requirements converge to turn out a successful project, and where projects tend to be unique. Design, master planning, project management, production and construction – and meeting the challenges encountered along the way – are all team endeavors.

It's therefore no surprise to find that team culture is basic to the company culture of PGAV Destinations, a seasoned and highly successful, highly creative firm specializing in the planning and design of destination attractions.

“We are well beyond the cult of personality and moving into a sustainable future based on our creative family,” said PGAV Destinations principal and chair Mike Konzen of his accomplished and diverse team of “destinologists.”

Konzen represents the second generation of ownership at the company. As a graduate of Washington University in St. Louis - where PGAV Destinations is based - he joined the firm in 1986, and gained his first theme park experience on projects for Universal Studios. In January 2010, he and the late Jim Moorkamp (who passed away in 2013) took over leadership of the Destinations group. Konzen has set programs in place to continue to build PGAV's leadership team and develop its staff.

A word often on Konzen's lips is “empathy.” Empathy is germane to designing great guest experiences; according to cultural anthropology, empathy is a core element of being human. Empathy is also among the basic tenets of emotional intelligence, alongside adaptability, achievement orientation, mentoring, teamwork and inspirational leadership. And empathy works: this key value espoused by Konzen and persistently nurtured within his organization has helped foster continued creativity, innovation and success. PGAV Destinations boasts an international portfolio of work that reflects boldness and excellence in master planning, exhibit design, attraction design and environmental storytelling for theme parks, zoos, aquariums, resorts, brand destinations and museums. Fun fact: PGAV Destinations has twice designed the world's largest aquarium.

The PGAV team spirit

The team culture dynamic helps PGAV Destinations retain a leading position in the industry. It is a good fit with market needs, it enables the company to produce and deliver a great product, and it makes PGAV a rewarding and satisfying place to work.

“Our industry is at its essence about collaboration,” said vice president Al Cross. “Team culture is perhaps the most important thing we have. When people are wholly invested, they do better work, results are better and more

consistent, and clients are happier. PGAV hallmarks are longevity, consistency of execution, dedication and the ability to deliver at the front, middle and back end. We work hard, and we work hard on having fun.”

When a client contracts PGAV for a project, they are in fact contracting a proven, experienced, versatile team. Writing in the Wall Street Journal about hiring practices, Dr. Sydney Finkelstein, director of the Tuck Center for Leadership at Dartmouth College, outlined a principle that can be readily applied: “... employers who hire preformed teams can feel confident that [they] will work well together. After all, they already have. Managers have hard evidence that the team has the right mix of personalities and skills to succeed, in the form of the team’s performance record ...” (“Why companies should hire teams, not individuals,” Oct 2017).

Investing for the future

“We don’t believe in staffing up and down,” said Konzen. PGAV Destinations boasts a 90%-plus annual employee retention rate and has grown staff size by 10% annually for the past five years (staff currently numbers 110). “Candidates come to us from all over. They’re drawn by our reputation, quality of work and the opportunities we provide. I grew up in this company and had the blessing to inherit it. It’s now my job to pass it along in even better shape to the next generation.”

PGAV is taking pains to cultivate newer, younger staff, and to pair and team them with senior staff, as was done in the ‘PGAV MOJO project.’ “Our designers create a forum that deepens appreciation for our culture,” said Konzen. Another program, PGAV GO! allots \$1,800 annually to each of the firm’s team members toward professional development opportunities. “We want our designers to imagine their own futures and know that we’re here to help empower them to achieve those visions,” said Konzen. The company’s “Spot on Story” program is an internal forum for staff to share historic design stories.

“While a lot of us have been here more than 20 years, we have a good-sized team of fresh, new, creative folks - a really nice blend,” said Tom Owen, VP, senior planner and designer.

At this writing, PGAV had completed the first phase of a major office expansion and studio overhaul at 200 North Broadway in downtown St. Louis, where the company has been since 1983. The renovation/expansion adds an

Mike Konzen (principal and chair), George Albers (retired principal), Mark Viets (retired principal), Lyda Krewson (former CFO and current mayor of the city of St. Louis), Fred Walton (retired Planners principal), Fred Guyton (retired chairman emeritus). Photos courtesy of PGAV

additional 40% to the space for a total of about 40,000 sq. ft. and includes more areas for hospitality, team collaboration, and unique spaces to work.

“We’re making a huge reinvestment,” said Konzen. “PGAV feels a lot like a family business, but family businesses don’t often thrive into the third generation. The willingness to re-invent and reinvest in ourselves is what makes that possible. There is an unlimited potential here and I spend a lot of time thinking about how to make the most of it.”

PGAV vice president Emily Howard, who has been leading the expansion project, said, “We asked the staff for comments about what they’d like to see in the new PGAV studio, and I’m proud to say that most were accommodated.”

The design of the expansion makes the most of the opportunity to show what PGAV Destinations is capable of in terms of an aesthetically pleasing, hospitable, contemporary themed environment. Hallmarks are the big, open floor plan, motorized sitting/standing desks at all workstations, flexibility so that people can move together, group and regroup for proximity to their team members, and conference and breakout spaces that are themed and named after PGAV projects. Spacious windows offer views of nearby, downtown amenities and icons such as the Gateway Arch, Busch Stadium, and the Mississippi River.

The decision to remain at 200 North Broadway underlines the company’s deep ties and commitment to St. Louis even while the firm expands its international reach. One notable example of a local tie is St. Louis mayor Lyda Krewson - recently elected, the city’s first female mayor, and the former CFO of PGAV for 33 years.

What about the first generation? PGAV was founded by William Peckham, Fred Guyton, George Albers, and Mark Viets. Guyton (St. Louis) and Viets (Kansas City) had the longest tenures leading the practice. Guyton is credited with laying the foundations of the Destinations practice,



having secured and worked on the company's initial projects for Busch Entertainment, the first of which was the Bird Garden at Busch Gardens Tampa. "We've been fortunate to have multiple long-term client relationships. Principal among these is our more than 40-year relationship with SeaWorld. There's no substitution for developing a project and then watching how it performs over many years," said Konzen.

Markets, media and master planning

It was about 20 years ago that PGAV began to leverage its background in theme parks and animal attractions to establish itself in other specialized markets.

The initiative has borne fruit: US-based projects include the Georgia Aquarium in Atlanta, GA; Space Shuttle Atlantis at Kennedy Space Center Visitor Complex in Cape Canaveral, FL, and Cardinals Hall of Fame in St. Louis. The international list includes PortAventura park in Spain; the recently opened Ferrari Land at PortAventura, the Grand Aquarium at Ocean Park Hong Kong and Chimelong Ocean Kingdom in Zhuhai, China. Newer projects in various stages of planning and production at this time include The Alamo, The St. Louis Aquarium at Union Station, Fort Ticonderoga and Niagara Falls' Cave of the Winds. (Read on for many more.)

Emily Howard talked about the need to design media-rich environments. "The guest wants to experience things differently now," she said. "People want to use their devices, they want hands-on interactives and they want something to take away. It's a good thing; it enriches the storytelling and allows the guest to dig deeper. We still drive the story and the big idea, still have typical graphics, but now we also design the interface."

A lot of the company's work starts with strategic master planning. "We help the client visualize the future and create a roadmap through a process of analysis that includes business planning, branding, and growth strategies," said Owen. "Very often our work grows beyond master planning, and the client keeps us on to help get the project built."

"We are at our best when we are there at the very beginning and then throughout the process, leading product design, involved in the business strategy; then conceiving, designing and art directing," said Cross.

The attractions industry is a challenging, innovative field. Operators must always be at the top of their game and they demand suppliers are at the top of theirs. A company that can't evolve and respond won't survive. PGAV has stood the test for 53 years and shows itself ready to embrace the next 53.

Thea Awards and milestone projects

Eight PGAV projects have been honored with Thea Awards from the Themed Entertainment Association:

- Chimelong Ocean Kingdom (2015)
- "Believe" (SeaWorld Orlando, 2007)
- Georgia Aquarium (2007)
- Curse of DarKastle (Busch Gardens Williamsburg, 2006)
- Discovery Cove (Orlando, FL, 2001)
- Irish Village (Busch Gardens Williamsburg, 2002)
- Journey to Atlantis (SeaWorld Orlando, 1999)
- Wild Arctic (SeaWorld Orlando, 1996)

Milestone PGAV Projects

- 1975: Busch Gardens Williamsburg
- 1990: Universal Studios Florida
- 1995: PortAventura
- 2000: Discovery Cove
- 2005: Georgia Aquarium
- 2008: Aquatica Orlando
- 2009: Table Rock Welcome Centre, Niagara Falls
- 2011: Ocean Park Grand Aquarium
- 2013: Space Shuttle Atlantis and SeaWorld Orlando Antarctica: Empire of the Penguin
- 2014: Chimelong Ocean Kingdom
- 2016: Village Hotel at Biltmore Estate
- 2017: Ferrari Land at Port Aventura

Destinology

During the late 1990s, Mike Konzen developed the strategy, alongside Jim Moorkamp, that led to the company's modern-day "destinations practice." The word "Destinology" was coined. This new branding term, in addition to helping define the company's practice, became the title of a quarterly PGAV publication, Destinology, with a readership of some 8,000 industry professionals.



PGAV and SeaWorld

Q & A with John Linn, Vice President of Global Theme Park Development, SeaWorld Parks

SeaWorld and Busch Gardens properties are unique in the world of destination attractions. What are some of the qualities that make PGAV a good fit for their unique design needs?

PGAV has helped design some of the SeaWorld Parks' most popular attractions, including Cheetah Hunt at Busch Gardens Tampa Bay and SeaWorld Orlando's Manta coaster. They have also worked with our teams to enhance the in-park experience with new realms that connect guests to our mission to care for and protect our oceans, such as Explorer's Reef, our new interactive front of park at SeaWorld San Diego. PGAV shares our goal to provide guests with amazing, unique and fun attractions and rides. We want our guests to be inspired by what they see and learn at the parks, and working with a partner like PGAV helps us deliver on that.

Can you talk about the longevity of the relationship with PGAV & what has sustained it?

We have been working with PGAV for over 40 years, starting with the initial concept design for Busch Gardens Williamsburg in Virginia. Over the years they have been a true partner in every sense of the word. I personally have been working with PGAV for the last 23 years, but more importantly I have been working with many of the same individuals at PGAV over that entire time. The value of having shared experiences cannot be overstated including increased efficiencies and communications. The team at PGAV and the successful environment they've created has

led to a highly collaborative, enthusiastic team with diverse points of view and experience.

PGAV can handle all aspects of project development including concept design, scheduling, estimating, and documentation for permitting and construction. Both sides are committed to delivering the best possible experience for our guests.

What has been a top result of this collaboration?

The development and opening of our Discovery Cove project is at the top of the list. An all day, reservation-only park had not been done before, and is still very unique in the industry. Providing our guests a destination like Discovery Cove, with its lush landscaping, beautiful white sand, multiple pools and rivers, and of course, animal interactions was an incredibly gratifying collaborative project.



PGAV has been instrumental in planning at SeaWorld's Discovery Cove, and active working with a variety of SeaWorld Parks projects and properties

PGAV in Asia: Chimelong Ocean Kingdom and other projects

PGAV Destinations served as the master planners, lead design consultant, and lead designers for Chimelong Ocean Kingdom, a world-class, state-of-the-art marine animal theme park that features themed rides, shows, and animal exhibits throughout its eight themed zones. It opened March 2014 in Zhuhai, China.

The park was honored by the Themed Entertainment Association (TEA) in 2015 with the prestigious Thea Award. "Mainland China's explosion of cultural attractions, theme parks and resorts has a radiant new standard-bearer," wrote the Thea Committee. Annual attendance has steadily increased year over year. Per the TEA/AECOM Theme Index, in 2016 Ocean Kingdom

received nearly 8,500,000 visits and was the top-attended theme park in China that year. The park also has earned distinctions in the Guinness Book of World Records (2014), including World's Largest Aquarium.

Chimelong Group Co. Ltd. is a leading tourism, resort and entertainment developer based in Guangzhou, headed by Chairman Su Zhigang. The working relationship between Chimelong and PGAV began in 2009. PGAV had already earned credibility in Asia on a variety of projects for such clients as Samsung Everland (South Korea), Ocean Park Hong Kong and the Museum of Qin Terra-cotta Warriors and Horses in Xi'an, China.



PGAV designed a large scale and dynamic entrance for Chimelong Ocean Kingdom on Hengqin Island, China

According to the PGAV Blog: “Chimelong has a wholly unique take on storytelling. It blurs the lines between shows, rides, and animals, and introduces exemplary efforts to remove barriers between guests and animals. It boasts the first roller coaster integrated with a polar bear habitat, as well as a whale shark monument that may be the largest man-made animal sculpture in the world.”

PGAV is currently underway on a new project near the Szechuan province; more details are expected soon.

Georgia Aquarium and Space Shuttle Atlantis

Two landmark projects for PGAV Destinations were Georgia Aquarium in Atlanta (open since 2005) on which PGAV was lead exhibit designer, and Space Shuttle Atlantis® at Kennedy Space Center Visitor Complex in Cape Canaveral, FL (open since 2013), on which PGAV was principal storytelling and design firm. Both were celebrated within the industry as pioneering achievements.

Atlanta

“Georgia Aquarium was a turning point for us,” said Howard, who served as project architect and onsite construction administrator. “We brought a lot of zoo and

aquarium experience to it, and it gave us a chance to show our design chops in terms of doing a whole facility. We still work with the Aquarium today as they continue to expand and renovate.”

Georgia Aquarium functions as a world-class destination while fulfilling its nonprofit mission of education and conservation. PGAV’s background enabled its team to understand and serve the needs of the animals as well as the guests, and to understand and collaborate with the scientists. Vision (with the mandate for a “wow” factor) and principal funding came from Home Depot founder

Enormous viewing windows bring guests into the undersea environment at the Georgia Aquarium





Space Shuttle Atlantis is the centerpiece of the PGAV-designed experience for the Kennedy Space Center

Bernie Marcus, as a gift to the city and people of Atlanta. Annual attendance is reported at some 2.4 million and at the time of opening, the facility was named World's Largest Aquarium in the Guinness Book of World Records (now surpassed by the aquarium at Chimelong Ocean Kingdom, also designed by PGAV), with tanks of more than 10 million gallons, more than 100,000 animals and building area of 7,800 square meters on a 13-acre campus. Accolades include a TEA Thea Award for Outstanding Achievement, high rankings by TripAdvisor and the Atlanta Downtown Excellence Award for Outstanding Community Project.

Bruce Carlson was one of the original core team who worked with Marcus from the early stages and continued on to manage the aquarium after opening. He retired in 2011. Said Carlson, "Bernie wanted a world aquarium. While many aquariums focus on their local ecosystems, our challenge was how to tell an international and biologically-diverse story. In addition to animal and water displays, there would be a theater, gathering spaces, administrative offices, parking, etc. PGAV was there to help take the concept ideas and make them more definite, distinct, and exciting.

"Bernie said that it had to be built from the inside out. What was going to be inside the building would be decided before thinking about the building itself. We were able to design for the animals first! PGAV was very important to that part of the process, giving the exhibits a sense of theatrical staging, without compromising the animals - dramatic, educational and authentic all at the same time." "We thought through the different species and built stories around them," said Howard. "From our past experience we could speak to overall capacity, guest flow, and the hierarchy of needs: What do people need as soon as they come in? How wide does the path need to be? We knew that however large the exhibit is, you need at least that

much space again in life support, and another percentage in staff space. It takes a lot to support just one exhibit in an aquarium. And we had to create a brand."

"PGAV understood interactions between animals and people," said Carlson. "They knew how aquariums work and how people move through them. They were good at communicating with all stakeholders. They really do act as a team, and listen well."

On opening day, "The aquarium was as close to perfect as you could get," said Carlson. "Our job was to engage and inspire visitors, to create a sense of wonder and awe, to make sure they'd remember the visit all their lives – the kids in particular – and, for Atlanta, to create a real sense of civic pride. I feel very proud of what was accomplished by everyone involved."

Atlantis

Two key elements of the guest experience at Space Shuttle Atlantis: 1) positioning the shuttle with the doors open as if it were moving through space; 2) the breathtaking, "big reveal" of the shuttle that forms the transition from the media-rich pre-show to the media-rich floor of interactive exhibits.

The \$100 million, 90,000-square-foot exhibition features four multimedia and cinematic productions and more than 60 interactive experiences that invite guests to imagine themselves as astronauts - and to celebrate the people, passion and patriotism behind the shuttle program. Accolades recognizing the design work include a Silver Muse Award from the American Alliance of Museums, the Annual Communicator Award of Excellence by the International Academy of Visual Arts, for Interactives; and the Merit for Signage, Wayfinding, and Environmental Graphics from the HOW International Design Awards.

Working closely with primary stakeholders Delaware North Companies Parks & Resorts (operators of the visitor center) and NASA, the PGAV team approached the creative challenges with customary relish. “We became huge space geeks,” said Howard, who served as project manager.

Amanda Yates, lead designer, brand experience, wrote “Becoming a Space Geek: Designing for Space Shuttle Atlantis” in the PGAV Blog (June 2013): “Passion for the subject matter is absolutely essential to the work we do at PGAV. As destination designers and storytellers, we must become immersed in the narrative. For the home of the Space Shuttle Atlantis, we had amazing source material: three decades of missions, amazing imagery, thrilling stories. We had the real-deal, space-flown orbiter Atlantis.” The orbiter, which Kennedy Space Center obtained in a competition when NASA ended the shuttle program, is the centerpiece of the main exhibit area.

Bill Moore, currently president & CEO, Zoo Miami Foundation, was COO of the KSC Visitor Complex (working for Delaware North) at the time and collaborating closely with PGAV. “Atlantis was a watershed for the Center, and we were the group that lifted the shuttle off the ground to display it with the payload doors open.”

Suspending the vehicle with payload doors open had never been done before on Earth. “Normally the doors open in space very differently from on the ground,” said Moore, “and moving the shuttle around was a fairly intense process with NASA. There were many teams and special equipment involved.”

The jaw-dropping, big reveal of the shuttle at the end of the preshow is a tour de force of integration as well as aesthetics. Tom Owen, who was executive producer for media production, played a very active role from scripting through installation, and his theater background came in handy for designing and choreographing the reveal. He described the creative project process as a “balancing act,” and said, “You want creative improvement to take place over the course of the project, but you need to meet the schedule and budget. The building is in construction, the media is being produced, the AV systems are being refined. I equate it to the script of a movie or score of a symphony. The design we do is still sort of a theoretical document, just as a musical score is - until someone starts to play it.”

The main floor is filled with interactive displays; some share historic information and images, and some are hands-on challenges. The new-minted space geeks of PGAV did their homework. “We dug in,” wrote Yates.

“We cataloged stories, images, facts, charts, and diagrams to establish an intricate content database. We interviewed shuttle astronauts, technicians, and mechanics. We nerded out over the latest Chris Hadfield tweet. We dreamed, drew, redesigned, rethought. We created a layered graphic system to deliver important STEM messages to a range of audiences.”

Owen said, “It was both fun and challenging having to work with a big team, on a big team effort, to trust each other, to help everybody do their best work and end up with a great product for visitor and client and for NASA.” The Center reported a 25 percent annual attendance jump in the first year.

Today, Moore still calls on the services of PGAV, on behalf of Zoo Miami. “They have an excellent research team and a wide array of talent and great thinkers,” he said. “Mike Konzen has a unique management method. He is really good at letting people excel. With PGAV, you remember the team, you remember different people with different skillsets. And they are really great at staying on budget and schedule.”

Space Shuttle Atlantis “accomplished all the goals set,” said Moore, who keeps Konzen’s nine points (see below) posted near his desk. “For the people that worked on the shuttle itself, this was emotionally important: this was their place to tell their story. It was emotional for PGAV as well, and it was a home run for Mike Konzen and me.” •••

Mike Konzen’s nine points for a creative company

Mike Konzen recently shared these in a presentation at the 2017 IAAPA Leadership conference.

1. Let It Happen
2. Have a Mission
3. Make a Difference in Your Community
4. Play Together
5. Be a Family
6. Everybody Can Have Good Ideas
7. It Takes All Kinds of Leaders
8. Share Stories about the Design Experience
9. Life Is a Journey - Encourage Exploration



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IAAPA Orlando 2017

Interactive, life-like attractions drew attention at the largest IAAPA gathering yet
by Rona Gindin

I've lived in Orlando for 21 years and written about the destination's travel highlights all that time. I'm at the media openings of new water parks, theme park rides and a bevy of other attractions. I spend my days seeking out high-tech, all-natural, educational, family-friendly and otherwise-noteworthy guest experiences to share with my readers.

In other words, I'm a journalist who had become familiar with themed entertainment from the travel and visitor perspective. Now, my work with InPark has opened a door into a new dimension of the business, and I've been getting a crash course in how these attractions are conceived and created.

In November 2017 I attended my first International Association of Amusement Parks and Attractions (IAAPA) Expo, which takes place every year in Orlando. (IAAPA also holds annual expos in Asia and Europe.)

Being at IAAPA Orlando gave me a chance to get acquainted with the companies and people who design, build, develop, operate and maintain parks and attractions around the world. For four days, I walked the mammoth trade show floor, peering into the eyes of lifelike robots, climbing into virtual-reality ride cabins, talking one-on-one with innovators about the why and how of their

newest products and services, and racing from press conference to press conference to hear executives talk about hardware and software, ride vehicles, projectors, wave pools, looping coasters and much, much more.

Having this backstage - so to speak - experience has added a level of understanding to my existing fund of knowledge and experience from the consumer side. I now have a broader perspective of the elements that go into rides, shows and theme and water parks and the other attractions where I regularly attend media relations events. Thanks to this exposure, I'll be able to share more meaningful information and insights with all of my readers - in addition to the excitement of getting to know new people and new companies, many of them right here in Orlando, conveniently located to serve their clientele.

This year's IAAPA Attractions Expo in Orlando was the largest ever, with reported attendance up 12 percent over the year before. More than 25,300 buyers traveled from around the globe to walk 576,000-plus-square-feet of displays at the Orange County Convention Center, where 1,114 companies displayed their newest offerings.

Orlando is a fitting home for this mega-gathering; in fact, IAAPA recently moved its headquarters there. The association broke ground on what will be its new headquarters building during the trade show - virtually, on stage during the official kickoff presentation.

The Orlando market, with eight theme parks and six highly themed water parks in or near the core, plus a growing array of smaller attractions, is filled with cutting-edge offerings, making it an ideal home for IAAPA and for its largest annual gathering. The most notable Orlando area additions in 2017 were Walt Disney World's newest headliner, the Flight of Passage virtual reality ride within Disney Animal Kingdom's Pandora - The World of Avatar land, and Volcano Bay, Universal Orlando's state-of-the-art water park, where technology gives guests two advantages: no lines for rides, and no need to carry rafts or tubes upstairs.

On the trade show floor, vendors showed off technology of all varieties, from single, self-contained rides to the types of sophisticated products needed for highly immersive themed experiences on a grander scale.



Rona Gindin. Photo Credit: Pete Covino

Separately, robotics manufacturers displayed animatronics that look realistic, with human-like skin, and smooth head, neck and hand movements. There was projection mapping technology that transforms surfaces into detailed images; ride technology to simulate off-road adventures; and interactive attractions that include elements beyond the ride itself, inviting guests to continue their involvement within the theme park and even after leaving the park.

Here is a selection of noteworthy products from my explorations at IAAPA Orlando 2017.

Double the Fun

Skyline Attractions, LLC, introduced the Skywarp, on which two trains of 16 passengers travel an 8-shaped double loop, each passing the other train repeatedly. The first Skywarp will debut in Six Flags Discovery Kingdom in northern California in spring 2018. It will have the name HARLEY QUINN Crazy Coaster, after a DC Entertainment super-villain.

Multidimensional Projections

Christie displayed its new Mystique projection system, with multiple projectors. Rugged surfaces, as well as flat ones, can show high-resolution moving pictures. That allows attraction operators to use buildings, domes, cars, mannequins and sports-venue surfaces as screens or projection mapping surfaces.

VR Three-Pack

The Q-Ride is an all-in-one, virtual reality package introduced by Brogent Technologies Inc. Seat movements coincide with the script, whether the theme is a hot air balloon expedition, a shooting game or an underwater experience. The headpieces are a single item with both speakers and glasses attached, which helps reduce loading time for the 12-seat ride.

Living History

Historical figures will seemingly return to life via Living Faces of History, a new line of animatronics by Garner Holt Productions, Inc. The figures, such as one of Abraham Lincoln, become lifelike thanks to 46 motions, complemented by a neck that functions seven distinct ways. A silicon skin makes the faces softer and more pliant than past materials did. The characters run on electricity, so they are portable and self-contained.

When a Game Goes Non-Linear

Wander®, Alterface's newest game, is non-linear. Every game begins in a designated hub but then moves out into the larger attraction or park. Participants return to the hub for new missions after completing each

one. Guest information, stored on a wand used by a single person or a team, guides the experience.

Rejuvenating a Classic

S&S Worldwide is creating an updated version of its Steeplechase Coaster, which itself was created in 1976 by Arrow Dynamics, now owned by S&S. The original was modeled after a classic, equestrian-themed attraction introduced in 1896 at Brooklyn's Steeplechase Park. After having engineers study an extant version at Blackpool Pleasure Beach, the S&S team improved the ride. It will now go in a Möbius loop, and have a bar restraint that lowers the height requirement from 55 inches to 42 inches. In addition to horses, the Steeplechase Coaster can now be adapted to feature dragons, raptors or motorcycles.

Upgrading Video Games

Two video game franchises, Rabbids and Assassin's Creed, will soon be available in virtual reality versions. The experiences will be modular and small enough to fit 10-square-meter (108-square-foot) spaces. Triotech and Ubisoft are collaborating on the projects, and Asterion VR is providing technology.

Flying High

Dynamic Attractions unveiled a flying theater product that is available in fully themed and customizable formats. Essentially, the Dynamic Flightcycle allows riders to lean forward on a motorcycle-like vehicle in front of a concave screen. They will feel as if they're soaring through the sky. Wind, mist and scent can be added to the ride, which can fit into small spaces due to a low ceiling requirement. A Dragon Rider version has a feudal storyline in which the cycles are dragons and kingdoms are dueling. Scenery, media, projection, a screen and even a preshow are part of the package. Dynamic Attractions also introduced a ride that mimics an off-road experience [see story on p. 14 of this issue].

Slippery Slopes

Three new waterslide offerings have expanded the ProSlide Technology Inc. portfolio. RocketBLAST®, a modified version of the ProSlide HydroMAGNETIC ROCKET®, is a hydro coaster that uses water propulsion and turbine technology to provide speed going up and down.

FlyingSAUCER® elements, round and tilted, can be added to RocketBLAST®, inserted between waterslide and water coaster flumes, allowing guests to traverse turns at up to 30 feet per second. Separately, ProSlide introduced the Double TornadoWAVE™ in 2017, an extension of its 6-year-old wall insert. The new version creates a dedicated ride path for 4- and 6-person rafts into a near vertical-zero-gravity moment.

SeaWorld Sensations

SeaWorld Parks & Entertainment announced several additions and enhancements to its parks around the world. Among them are the following:

Infinity Falls, a river rapids attraction scheduled to open at the Orlando park in summer 2018, will have a rainforest theme and a 40-foot vertical drop. Passengers will ride on an 8-seat raft resembling those found on real white-water rafting expeditions. As part of SeaWorld's "Park to Planet" initiative, the ride will have a water conservation theme and end with educational animal encounters.

Electric Eel, a 150-foot-tall roller coaster, is also set to debut at SeaWorld San Diego in summer 2018. It will include an educational component about moray eels.

Oscar's Wacky Taxi™, a wooden roller coaster, will open at the Pennsylvania Sesame Place in spring 2018.

The San Antonio and San Diego SeaWorld parks will be home to new Sesame Street parades, and the Orlando park will gain a Sesame Street land in the future.

Battle For Eire™—Action VR Ride will join the line-up at Busch Gardens Williamsburg. It will be a motion-based simulator with a 360-degree virtual reality headset.

SeaWorld will announce the location of a second Sesame Place theme park, modeled on the original in Langhorne, Pennsylvania.

IAAPA Hall of Fame Awards Announced

Three sets of worldwide industry innovators received the IAAPA Hall of Fame Awards during the 2017 IAAPA convention. Those so honored were Philippe de Villiers, founder of Puy du Fou in Les Epesses, France; philanthropists and industry ambassadors Henri and Pamela Landwirth of Give Kids The World in Kissimmee, FL; and songwriter Richard M. Sherman, known in connection with many famous songs for Disney movies and parks such as "it's a small world". •••

Editor's note: You can see additional, detailed reports in connection with this story on the InPark website at www.inparkmagazine.com/iae17.



EUROPE & MIDDLE EAST

Industry Landscape

The power of the collective in creating shared experiences that are shaping themed entertainment

May 2nd and 3rd, 2018 - Europa Park, Germany

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- ▶ The importance of taking a strategic approach to IPs and Branding
- ▶ Driving long term growth without losing sight of what is happening today
- ▶ Accessibility as a premise instead of an after-thought
- ▶ Integrating today's increased security requirements seamlessly into the guest experience
- ▶ The blurring of lines between themed entertainment and brand experiences: from temporary events to permanent installations
- ▶ Technologies that are shaping the future and changing lighting and special effects in themed experiences
- ▶ The evolution of shopping centers as community gathering spaces and entertainment venues

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Awards season

2018 Thea Awards roster brings together a diverse and impressive list of notable projects and industry leaders

edited by Martin Palicki

Aside from bringing the themed entertainment industry together for a delightful evening of socializing, glitzy formalwear and live entertainment, the Thea Awards (held this year on Saturday, April 7, 2018) help recognize an art form that frequently goes unnoticed and uncredited.

The Theas Committee spends the better part of the year assembling and reviewing submissions from around the world - all for this one evening gala, anticipated by the whole industry.

But the value of the Theas extends beyond the Disneyland Hotel grand ballroom. The honorees recognized become a focus for the TEA Summit, and recipients frequently mention the award in their marketing and communication years after.

It is with that longevity in mind that we present a small selection of stories inspired by several of this year's Thea recipients.

-Martin Palicki

Magic Castle

Sander de Bruijn- head of Efteling's design team for Symbolica.



Interview by Tina Kreitlow

Efteling has a great and long history of dark rides. How does Symbolica build and expand on that history?

Symbolica was built in the tradition of our dark rides – it is a palace, and the interiors and characters were designed by our own staff, based on our own park tradition. The show you see inside is a whole new experience, of course, taken to a whole new level - but built in a similar style to Dreamflight or Fata Morgana.

How do you use technology to help tell the story?

For us at Efteling, the groundbreaking technology is used to make fantasy come alive through special effects. What the fantasy does to its surroundings and what it does to our guests in Symbolica is something our guests can't experience elsewhere in Efteling.

What is your process for creating the ride story and ensuring it fits into the park?

The story starts with the book "Symbolica," that the founding father of Symbolica, Mr. Henny Knoet, created

and left to Efteling before he died. We built on that tradition and created a story around one of our famous characters, Pardoes. We made this palace a good home for him so he can play with fantasy and lead the guests - which makes a joyful ride.

Are there any secrets hidden within the ride we should look for?

Absolutely - but if I tell you they are no longer secrets. But you have to look very closely when the fantasy twinkles appear, pay attention and see what happens then. •



The climactic scene of Symbolica includes a large ballroom filled with sweets and populated by animatronics created by Garner Holt Productions. Photo courtesy Efteling

Everyday Joe



One of two recipients of this year's Peter Chernack Distinguished Service Award, presented by the Themed Entertainment Association (TEA) to recognize outstanding volunteers within their organization, Joe Fox has been a familiar face behind the scenes at TEA events, lending his can-do attitude, acumen and capable hands to ensure the technology supports what is happening on the stage.

Interview by Martin Pallicki

Why/how did you get involved with TEA?

I joined the TEA at the advice of Steve Alcorn while participating in his Imagineering class. I wanted to find a path into the industry, and the TEA and IAAPA were both put forth as good steps toward that. I started volunteering as part of the team assisting with the TEA presence at the 2012 IAAPA expo, and have been volunteering ever since.

What is your job when you're not helping out TEA?

I started out as a project engineer at Birket Engineering and am now one of the engineering managers for Birket's Florida office. I manage an extremely talented team of engineers doing show control, ride control, embedded hardware and software and much, much more. Basically, if it involves electrons, we're in!

What are you really doing behind the scenes during SATE or the TEA Summit?

That would be giving away the secret sauce! I serve as a liaison between the technology and the presenters at the events, such as the TEA Summit and TEA SATE conference, to make sure that the brilliant ideas and awesome presentations that participants have poured their hearts and minds into get onto the screen and come out of the speakers' microphones - and, from there, into the hearts and minds of the audience. I make sure the technology stays in the background where it belongs and the people, stories and ideas get the limelight they deserve.

How do you select interlude music? Do you take requests?

I have an extremely eclectic music library, introduced to me by friends and family over the years. I absolutely do take requests – the Doogie Howser theme during SATE

2017 was for Garrick Hansen and Greg Senner. The text messages I get for some of the selections make my day.

Who inspires you?

People who live their passion, and who work hard to make things around them better. It often only takes a small, incremental improvement happening on a frequent-enough basis to make substantial change. Like a river carving a canyon, continuous small changes lead to BIG change – the only thing that's left is to determine the trajectory. Second star to the right!

If you weren't working in this industry, what would you be doing?

I came into this industry from 10+ years in the education industry, and that's one of my other big passions. I'd love to develop an idea I have about an educational platform that truly equalizes education for all at some point!

What do you find most valuable about TEA?

The TEA is all about people. It's right there in the mission statement: "Representing the creators..." It's not about the product. It's not about the financial results. It's not even all about the story. It's about the people who help bring all that cool stuff to life. Those connections, those friendships – that's the stuff TEA is made of, and it's one of the reasons I'm so passionate about it.

If you could have any piece of tech equipment in the world at your disposal, what would it be?

JUST ONE?! MacBook Pro, iPhone, Bose QC35 headphones, AirPods – they're never more than a few feet away. My phone is the other half of my brain. And a Christie Boxer projector is nice to have, too. •

To send Joe congratulations, or to make a song request for an upcoming TEA event, send a note to joe.fox@birket.com, and remember "requests with stories get first play."



Tori and Joe Fox celebrate their wedding on November 19, 2017, a scant 36 hours after the IAAPA Attractions Expo wrapped up in Orlando. Congratulations! Photos courtesy Joe Fox

Dreams in motion

Interview by Martin Palicki

The most immersive land in MOTIONGATE™ Dubai theme park (part of Dubai Parks and Resorts), DreamWorks occupies a 45,000 square meter building. Within the walls, four zones are themed to DreamWorks intellectual properties (IP): Shrek, How to Train Your Dragon, Madagascar and Kung Fu Panda. A variety of rides, entertainment, and food complete each zone and invite guests into the world of their favorite animated characters. The DreamWorks zone will be honored with a TEA Thea Award for Outstanding Achievement in April 2018 at the annual Thea Awards Gala.

Wärtsilä Entertainment Systems helped integrate the AV equipment in various areas of the Dubai Parks and Resorts property, including MOTIONGATE park. We spoke to Wärtsilä team members Sean Reish (vice president of sales - theme park and land systems) Rusty Rustad (bid manager) and Kevin Cartier (project manager) for their insights on the project and its success.

What was your involvement with the DreamWorks land?

Sean Reish: Wärtsilä Entertainment Systems was the turnkey design/build audiovisual and control contractor for DreamWorks, which is part of MOTIONGATE park. We also worked on two other zones within the Dubai Parks and Resorts complex: Bollywood Parks™ Dubai and the Riverland™ Dubai entertainment district.

This project was key for us because we were able to leverage our existing facilities in the region. We built and tested 120 AV control racks in a local facility, which was helpful to the client. Our corporate locations all over the globe help facilitate this kind of local level of service.

What is your impression of the guest experience in the DreamWorks zone?

Sean: Up until recently, I had never visited the park as a guest, I always arrived via the employee entrance. When I took three clients last month, we went in as paying guests for the day and I really was impressed with how everything fit together. Particularly as you enter the park and see the DreamWorks Blue Box opposite the entrance, you realize it is the centerpiece of the park. Furthermore, my guests had just visited Universal Orlando a few weeks prior and they commented that the park felt like Universal and was well done – they were getting a value for their money.



The DreamWorks zone lets guests choose between four highly themed areas based on DreamWorks IP. Photo by Paul Williams

To receive a TEA Thea Award is a prestigious honor. What is it about that project that you think may have helped earn this recognition?

Rusty Rustad: The IP owner was very dedicated to their mission to get their IP represented properly. This resulted in a level of detail and authenticity being realized in the attraction. The treatment of the IP and the scale of the land are most impressive. Certainly, these factors made it worthy of a Thea.

Sean: It's an amazing, immersive box full of attractions, including last year's Thea-recognized suspended powered coaster from Mack Rides. One of the things that makes it so immersive is the fact that it is 100% indoors so the lighting and ambient noise conditions are controlled day and night, so it's a consistent experience – and the team really delivered on that.

What were some of the challenges in working on that project?

Kevin Cartier: As project manager, I know there will always be some bumps in the road on a unique attraction. Most of the mechanical and electrical infrastructure were planned before the creative design was complete. So, some of the challenges arose from the need to coordinate one thing with the other. Part of our job was to ensure the DreamWorks IP expectations and standards were upheld during the construction process – but of course, that's the kind of thing we do and are good at doing. Meeting that standard successfully required a lot of flexibility on our part in terms of installing AV gear and making changes. It was handled with strong on-site coordination and engineering, driven in large part by David Cline, another Wärtsilä project manager instrumental in the project's success.

Has the land changed or evolved at all since opening?

Kevin: It's been doing well just as built so far. DreamWorks has been open for about a year now and it's been fine-tuned operationally, but that's about it. There is space to grow the land in the future, if and when they decide to expand.

What sort of interesting technology is involved in the project?

Kevin: We have quite a bit of projection in the DreamWorks area, but the biggest one is in the Dragon Gliders coaster in How To Train Your Dragon. In one scene we have a Christie 50,000 lumen laser projector which provides 180 x 120 degree projection onto a compound curved screen that is 16.5m wide by 8m high. It's one of the first of this size and configuration. A special mounting structure had to be created to accommodate the projector and lens. This single projector solution was proposed as an alternative to several blended projectors. In a different scene, for example, we created a nine-projector blend. But for this scene, a single projector made the most sense. This is the climax scene in the attraction before the cars fly out over the themed land. The IP holder said it had to

be right and convey the brand and that's what led us to the technology solution. We also got quite a bit of help from Christie on getting it set up correctly.

What is your personal favorite within DreamWorks, now the project is built?

Rusty: The team all loved Dragon Gliders. It's a rare moment from an integrator's point of view when all the stars align and the best choice happens to be the most advanced one – and the result is stunning. The technology, the media, the storytelling – all of it came together. Of course, we were most excited to work with technology like the 50,000 lumen laser projector, but really, everything lined up for that attraction.

Sean: I think not only did the Wäritsilä team enjoy Dragon Gliders, but just about everyone involved with the project did. Obviously, we didn't work on this project alone. The creation of the DreamWorks land particularly was a collaborative effort that involved a lot of industry vendors, and the vision and dedication of the owner and operator. We thank and congratulate all of them on helping earn this Thea Award honor for DreamWorks. •

eleventh hour



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Phil Hettema

The Making of a Theme Park Legend

1954



BORN IN PASADENA, CA

1970



STUDENT BAND
Student Band Director & Outstanding Instrumental Music Award at Pasadena High School

1972



CSULB
Pursues his passion for music as music major at Cal State University Long Beach

1974



DISNEY COSTUMES
Creates costumes for Disney's Main Street Electrical Parade, America on Parade and the Disney Character Program

1980



ART CENTER
Returns to school to study design at Art Center College of Design in Pasadena

1982



KROFFT PUPPETS
Runs the puppet workshop of the famous puppeteers and TV producers Sid and Marty Krofft

2002



THE HETTEMA GROUP
Founds Phil Hettema and Associates, which later becomes The Hettema Group (THG)

2002



SARAYA AQABA
Invited by the King of Jordan to develop the master plan for a cultural resort in Aqaba, Jordan

1990



UNIVERSAL CREATIVE
Appointed Senior VP of Universal Creative, oversees the design of Back to the Future: The Ride, Backdraft, Jurassic Park: The Ride, T2 3-D: Battle Across Time, Islands of Adventure, Universal Studios Japan, and Men in Black: Alien Attack

1987



MIAMI VICE ACTION SPECTACULAR
Joins MCA Planning and Development (Universal Creative) as producer for the Miami Vice Action Spectacular at Universal Studios Hollywood

1986



LIBERTY WEEKEND
Production Supervisor for the Liberty Weekend, Statue of Liberty centennial celebration in New York

1984



OLYMPIC CEREMONY
Production Supervisor for the spectacular opening and closing ceremonies of the Summer Olympic Games in Los Angeles

1983



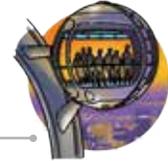
RADIO CITY
Joins Robert F. Jani Productions as a creative consultant for Radio City Xmas Spectacular and develops halftime show for Super Bowl XVII

2008



BEYOND ALL BOUNDARIES
THG opens Beyond All Boundaries, a 4-D cinematic experience, at The National World War II Museum in New Orleans

2014



HIGH ROLLER
THG opens the High Roller, the world's tallest observation wheel, at The LINQ in Las Vegas

2014



DREAMWORKS
Phil assumes additional role as Chief Creative Officer of DreamWorks Location Based Entertainment

2015



ONE WORLD OBSERVATORY
One World Observatory, designed by THG, opens at the new One World Trade Center in New York City

2017



Phil is named President of the Board of Directors for Ryman Arts, a nonprofit arts organization that provides arts instruction to high school aged students

2018



New projects and adventures are underway. Stay tuned!

Cedar Point



Millennium Force at Cedar Point. Photo courtesy of Cedar Point

A legacy of excellence and world-class thrills

by Rick West

Cedar Point is set to receive the Thea Classic Award from the Themed Entertainment Association (TEA) in April 2018, and the honor is more than fitting. Few parks anywhere have meant so much to so many people for such an amazing span of time.

The renowned Cedar Point amusement park is situated on the shores of Lake Erie in Sandusky, Ohio. It dates back nearly 150 years, to 1870, making it the second-oldest operating amusement park in the US (the oldest being Lake Compounce in Connecticut, which opened in 1846). Cedar Point began as a vacationing and fishing hot spot. The shift to an amusement destination began in 1890, with the debut of the property's first ride - a water toboggan-style attraction.

In 1892, the first roller coaster opened at Cedar Point: the Switchback Railway, standing 25 feet-tall at its highest point, sending riders careening down its humped track at a pulse-pounding 10 miles per hour - definitely tame by today's standards! Nevertheless, with Switchback Railway commenced a lifelong legacy of scream machines that would transform the peninsula into "America's Roller Coast."

Throughout the mid-1800s and early-to-mid 1900s, scores of parks and attractions popped up across the US, following the "Big Bang" of New York's Coney Island. Over time, many have closed, especially those situated along boardwalks, waterfronts, and pleasure piers.

But not Cedar Point. It has unequivocally withstood the test of time. Cedar Point has thrived; it has grown; it has become famous and it is the flagship of its parent company, Cedar Fair, one of the leading park operators in the industry.

What is Cedar Point's secret? What is its key to longevity and prosperity? We would say it's a combination of focused leadership, a devoted workforce, dedicated fans who return season after season, and an impressive history with leading vendor-partners such as Bolliger & Mabillard, Intamin, Vekoma, and back in the day, Arrow Dynamics, to name a few. Cedar Point knows its audience - and that is absolutely the essential ingredient in the park's continued success.

Generations have grown up with Cedar Point, witnessing various milestones in the park's evolution that have become their personal experience with the park. It's nearly

impossible to select just a few bullet-point moments from the Cedar Point story when you're dealing with nearly 150 years of history, but here are some that stand out for me.

- **Hotel Breakers** – Long before amusement or theme parks were designed or planned as integrated resorts, Hotel Breakers opened in 1905 on the shores of Lake Erie. During its 113-year operation, Hotel Breakers has served as home base for Cedar Point visitors – including historical figures such as Dwight D. Eisenhower, Annie Oakley, Theodore Roosevelt, and Abbot and Costello. However, the hotel's most important guests are those loyal families and fans who return each season to stay and play on America's Roller Coast.
- **Blue Streak** – 1964 saw the opening of Blue Streak, built by the Philadelphia Toboggan Company. This wooden scream machine signaled the revival of roller coasters at Cedar Point. More than a decade earlier, the park's Cyclone coaster was removed, leaving Cedar Point without a roller coaster until Blue Streak came online – a blip in time that seems almost impossible to imagine today, looking at the park's famous skyline. Blue Streak remains operational, and is a fantastic coaster experience for the whole family to enjoy.
- **FrontierTown** – In 1967, Cedar Point's beautifully-themed Frontier Town (now written "FrontierTown") opened at the northern end of the park. This Old West section of the Point was literally carved out of the heavily-wooded landscape, which set the stage for really stunning natural surroundings. The arrival of FrontierTown was significant for Cedar Point, which at the time, like many other parks across the nation, was inspired by Disneyland to begin thinking and planning in terms of themed areas and experiences. FrontierTown also blazed the way for several of Cedar Point's most distinguished coasters. Cedar Creek Mine Ride opened in 1969, and was one of Arrow Dynamics' new and exceedingly popular tubular steel-tracked roller coasters. Today, the Mine Ride is Cedar Point's second-oldest operating roller coaster. In 1991, Mean Streak opened; it was the tallest wooden coaster in the world - one of Cedar Point's many record-breaking coasters over the years. Mean Streak closed in 2016; however, that's not where its story ends (more on that below.) Maverick, a steel, launch coaster by Intamin, opened in 2007, featuring a 95-degree drop – the steepest in the park.
- **Corkscrew** – This Cedar Point classic opened in 1976. Another partnership with Arrow Dynamics, the Corkscrew was known as the first roller

coaster in the world to have three inversions, one of which was Arrow's first vertical loop. The coaster still spans the park's midway.

- **Magnum XL-200** opened in 1989, becoming the world's first hypercoaster, with a height exceeding 200 feet. At the time, Magnum was also the world's tallest, fastest, and steepest roller coaster, drawing international attention and record numbers of thrill seekers.
- **Millennium Force** – One of the greatest steel coasters in existence today, Millennium Force stunned the world when it made its debut in 2000. Redefining the Cedar Point skyline, this Intamin scream machine broke six world records when it opened. It was the first full-circuit coaster to top 300 feet in height, becoming the world's tallest full-circuit roller coaster as well, making it the first giga coaster in existence; had the longest drop on a full-circuit coaster at 300 feet; at 93 miles per hour, it was the fastest complete-circuit coaster on the planet; featured the steepest non-inversion banked turn on a roller coaster at 122 degrees; and was the first roller coaster to utilize a cable system rather than chain to haul its trains up its mammoth lift hill.

Intamin and RMC weigh in

"It is safe to say that without Intamin, Cedar Point would look different today - and without Cedar Point, Intamin would not be in the position it is today," says Patrick Spieldiener, CEO of Intamin Worldwide. "Reaching back many years, so many record-breaking new rides and technologies have been jointly developed and successfully put in place. Intamin helped Cedar Point in its realization of outstanding, state-of-the-art, key attractions that stayed on top of the lists for many years - if not decades."

"We are blessed to have the opportunity to work with Cedar Fair on this record-breaking coaster," says Fred Grubb, founder and CEO of Rocky Mountain Construction. "Fans can expect a smooth, thrilling ride with a record-breaking drop, and plenty of airtime! It is definitely a one-of-a-kind project, and we are grateful to everyone who has worked so hard to make it happen."

- **Top Thrill Dragster** – Always looking to break existing records and reach for the clouds, Cedar Point thrilled its followers with Top Thrill Dragster, opening in 2003. Built by Intamin, Dragster was the first full-circuit coaster to exceed 400 feet in height. Its 120-mph launch speed keeps it firmly in place among the fastest and most exhilarating roller coasters on Earth.
- **GateKeeper** – This stunning wing coaster began thrilling Cedar Point guests when it opened in 2013. GateKeeper marked the third B&M installation at the park, and this striking metal monster was also a component of a breakthrough redesign of the main entry plaza (the modern era of digital ticketing has redefined the traditional turnstile and entry experience, and this is a pioneering example – see “Tickets to Ride,” InPark issue #48, [inparkmagazine.com/tickets-to-ride]). One of the most exciting aspects of the redesigned entryway is the two support towers that the coaster trains pass through, which fans enthusiastically

refer to as getting “keyholed.” GateKeeper features the world’s highest inversion, with its 170-foot Wing Over drop. This amazing B&M achievement is a glass-smooth ride; an incredible, floating experience.

- **Valravn** – In 2016, yet more world records were broken by Cedar Point with the opening of yet another impressive B&M coaster, Valravn. At 223 feet-tall, Valravn is the world’s tallest, fastest, and longest dive coaster, reaching a top speed of 75 mph. This massive beast also carries the distinction of being B&M’s 100th roller coaster creation since the company began in 1988; it’s fitting that such an honor goes to a Cedar Point project!
- **Steel Vengeance** continues the legacy of Mean Streak, as Rocky Mountain Construction has been converting the record-breaking wooden terror into a brand-new hybrid experience that will open as Steel Vengeance in early 2018 in FrontierTown. Utilizing much of

In the words of the Point

“The last few years have been an exciting challenge while we try to connect the various Cedar Point legacies, particularly as we approach our 150th Anniversary in 2020,” says Jason McClure, Vice President & General Manager of Cedar Point. “Maintaining the coaster legacy has grabbed the headlines with the record-breaking additions of Valravn in 2016, and Steel Vengeance this summer – both the tallest and fastest coasters of their kind in the world. Meanwhile, reconnecting guests to our original legacy on the Cedar Point Beach has been just as rewarding. Multiple initiatives, like the renovation of Hotel Breakers, bringing park guests closer to the beach with thrill rides like WindSeeker and GateKeeper, launching Cedar Point Shores Waterpark, and introducing a wide variety of family and nighttime activities on the beach, all provide the foundation to achieve our goal: that while Cedar Point is rightfully known as the best place to ride roller coasters on the planet, we also want to be known as a unique destination for an amazing getaway. Cedar Point is a beautiful and breathtaking natural location along Lake Erie, and it’s also the destination for the world’s greatest thrills and FUN.”

“Cedar Point is the flagship park of the Cedar Fair portfolio, and its future is bright,” says Richard A. Zimmerman, President and CEO of Cedar Fair

Entertainment Company. “While the skyline of this park has changed over the years, the heart of who we are has not – providing our guests with the ‘Best Day’ experience, each and every time they visit. We’re making investments that showcase Cedar Point as the highlight of a multi-day stay in the region, where families can enjoy record-breaking roller coasters, unique culinary offerings, an array of accommodations from luxury hotel rooms to lakefront cabins, and our unmatched beachfront activities. Inside the park, our teams constantly challenge themselves to keep Cedar Point as ‘The place to be for FUN’ by creating immersive experiences that combine attractions, innovative technology and placemaking to enhance the guest experience, while remaining true to Cedar Point’s history. It’s this combination of respect for the legacy with the drive to constantly push the envelope that makes Cedar Point a place like no other.”



Jason McClure



Richard Zimmerman

the original Mean Streak wooden structure, Steel Vengeance incorporates RMC's unique IBox Track technology that enables the coaster trains to careen at nearly 75 mph along a track of outrageous twists, turns, and four inversions!

Personality, people and scale

Walking along the park's meandering paths and main thoroughfares, one cannot help but think of the millions of fans who have taken in the same sights and sounds over the decades, and how the park itself has continued to grow and change to meet the needs of today's fans and guests, while staying true to its rich history.

While the "personality" of Cedar Point may be found in its rides and attractions, the park has had great character as well – or characters, in the case of the Peanuts gang. Most guests visiting Cedar Point today have literally grown up with Snoopy, Charlie Brown, Lucy, and the rest of the gang. The partnership between Cedar Fair and Peanuts Worldwide has lasted three decades, and was recently renewed through 2025 [See "Year of the Dog: Peanuts and Cedar Fair," InPark issue #70: inparkmagazine.com/year-of-the-dog/].

Cedar Point has had great leadership through the decades, including the likes of Richard Kinzel (CEO of Cedar Fair through 2012) and his successor Matt Ouimet (succeeded by Richard Zimmerman earlier this year). And the greatness of Cedar Point extends well beyond its parent company's executives, to the men and women who come to the park each day every season, and bring it to life – ride operators, mechanics, entertainers, food and beverage representatives, cooks, marketing personnel, landscapers, sales, retail staff, hotel crews, and everyone else who proudly wears a Cedar Point nametag. It's people who make Cedar Point a real, breathing entity – a fantastic, world-class destination for guests of all ages that will, no doubt, continue to elicit screams and laughter for the next 150 years. •••



Rick West (rickwestTPA@gmail.com) is founder/ editor of Theme Park Adventure, creative director of Midsummer Scream, and is a professional creative director/ show writer in Los Angeles for the themed entertainment industry.

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Lessons of collaboration

TEA Summit connects the global attractions community

edited by Martin Palicki and Judith Rubin

The annual Summit of the Themed Entertainment Association brings together industry members from around the world for two days of presentations, networking, discussion and project case studies, followed the next day by the annual TEA Thea Awards Gala. In 2018, this big weekend of TEA events is taking place April 5, 6 and 7 at Disneyland Resort in Anaheim, California.

TEA Summit Day One focuses on raising issues and identifying trends in themed entertainment, along with presentations that feature the recipients of the Thea Classic Award and lifetime achievement honors. Day Two is Thea Case Studies Day, with frank, peer discussions on what made each project successful.

We asked each of the conference chairs to share a taste of what makes the TEA Summit special.

(Visit www.teaconnect.org for more information about TEA, the TEA Summit and the TEA Thea Awards.)

Roberta Perry, VP Business Development, Edwards Technologies, Inc. (ETI) is a past president of TEA. She has been an enthusiastic leader in organizing the TEA Summit for many years. Roberta is a co-chair of Day Two.



Networking is a big part of the Summit experience and each year you take steps to encourage and facilitate it. What do you recommend people do to make the most of attending this year's Summit?

The TEA Summit is an excellent opportunity to interact with your peers, exchange information, and develop contacts/resources. Information and people resources are power!

As a friend of mine says about networking – “it is constructive hanging around time!”

A key component of the TEA Summit is networking, which Andrew Kilkenny, Justin Ruka and Arielle Rassel know all too well

Here are my five networking tips:

1. Reach out, say hello and make networking fun!
2. Carry lots of business cards or mobile scan app.
3. Listen – focus attention on “them.”
4. Ask questions – be helpful if you can.
5. Connect them with others.

Remember that networking is a long game to build relationships. Business Development is about first building a community or tribe, then actively engaging with that community; and then, and only then, you have earned the right to ask of that community!

Christine Kerr, Vice President, BaAM Productions is co-chair of Summit Day One. She is also a TEA past president, and chairs the TEA Educational Committee.



What are some of the highlights of Day One this year?

First off, there's the Conversation with Phil Hetteema, founder of The Hetteema Group and one of the top designers in themed entertainment. Phil is this year's recipient of the Buzz Price Thea Award for a Lifetime of Distinguished Achievements. He is an industry legend and a wonderful person. Attendees will have an amazing opportunity to learn about Phil's career and hear his perspectives on the industry.



The TEA Summit presentation by AECOM - with whom TEA partners on the annual TEA/AECOM Theme Index and Museum Index - is a vital industry update, and an eagerly anticipated session each year. For 2018, Margreet Papamichael, director at AECOM, will present “The Future is NOW!” – looking at what is happening in the industry and around the world to influence the industry and our work.

Peter McGrath (SVP Creative) for Freeman is developing a new session for this year’s Summit. It will introduce the Design Thinking approach that guides the work of Freeman in creating Brand Experiences and exploring the overlap and opportunities with the world of themed entertainment.

Steve Birket, VP Business Development, Birket Engineering, Inc. is immediate past president of TEA and co-chair of the “Elephants in the Room” session that is part of Summit Day One.



You help curate a thought provoking and very popular segment of the Summit. What do you see as the value to the industry for presenting the Elephants in the Room?

These sessions bring hidden or uncomfortable topics out into the open for discussion. In past years we have addressed issues of discrimination, failure, awareness, and sweeping industry changes. There is immense value in creating an environment that welcomes this kind of dialog and questioning. We also feel it is important to bring in voices from outside our immediate network to help provide perspective.

Kile Ozier, Experience Architect is a longtime TEA leader (and coiner of phrases) who has played a role in organizing numerous sessions and conferences for the association. He is co-chair of “Elephants in the Room.”



What can we expect this year from the Elephants session?

This year, we’ll explore issues of respectful equality; we’ll discuss the “greenness” of our parks and installations; we’ll talk about succession planning; and we’ll look at the evolution of tastes, experience and expectation in live

and destination entertainment and how best to “inter-demographically collaborate.” Our goal is empowerment through enlightenment ... and enlightened empowerment. Also, we want people to have fun.

Joanna Del Moral, Director Business Development, Leisure Services, BRPH Architects-Engineers, Inc. sits on the TEA International Board of Directors, and is co-chair of Summit Day One.



With your years of experience in TEA and the Summit, what have you learned about the event through your involvement?

There is always something new to learn in our industry and the TEA Summit provides a great opportunity to absorb industry trends and best practices from the experts. The Summit is a valuable tool for any entertainment industry professional. A special session we are looking forward to features Cedar Point, which has stood the test of time, and is recipient of the Thea Classic Award.

Pat MacKay, Ones&ZerosMedia has a long history of volunteer leadership within the TEA, including years of service on the Thea Awards Committee. She is a recipient of the TEA Distinguished Service Award, and co-chair of Summit Day Two (Thea Case Studies Day).



What is the educational value of presenting the owner + creative together in the case studies?

It’s always been a key component of Thea Case Studies Day to have representatives of both the owner/client side and the creative team talk about the project from their individual perspectives. In fact this usually results in some of the most interesting discussion about the project. By the time the projects get to the Summit stage all the kinks have been worked out ... and creative accommodations have been made.

The very process of the diplomatic negotiation, the push-pull of creative/concept/financial/political requirements ... these constitute the life blood of getting the vision and the reality to opening day. There are wise and important takeaways from each presentation that apply even beyond our industry. The lessons of collaboration are valuable in the classroom, at the office, and even in government! •••

integration. During the four-minute experience, 3D effects are accomplished through polarized LEDs built into the screen. Integrated with near-field beamforming audio technology, the 3D projection makes it appear as if the ship's captain is communicating with holographic characters that appear on either side of the actor via the stereographic animation. It is for these reasons that the park calls the attraction a "4D Holographic Journey."

Rooted in music

3D Live's co-founders Nathan Huber and Ryan Pardeiro's roots lie in both LA's underground music scene as the duo Kid Infinity and in the realm of media technology. To differentiate themselves from competing musicians, Huber and Pardeiro began integrating 3D imagery into their shows. At the same time, the two were working for a company that had developed a 3D screen for a Michael Jackson tour scheduled for 2009. "You can see it in the concert film," said Huber, "but it's not as impressive as seeing it live because it lacks both the scale and the 3D of the actual screen. Members of our [3D Live] team worked on that tour. That wall was costly and relatively low resolution (1920x1080); it was also extremely bulky and very heavy."

The natural progression of technology took care of these issues. Huber noted that, every few months, new LED technology is released, resulting in more powerful walls at a lower cost and with lighter frames. With the issuance of 3D Live's 3D LED patents and their efforts to further develop this technology, 3D Live began constructing custom screens for bands such as Primus and concert venues such as Coachella.

Most recently, 3D Live completed the 28-city North American concert tour of electronic musician Flying Lotus. The show uses over an hour of 2D and 3D content utilizing a screen comprised of 3D Live's LED panels. "We put in a number of 2D moments to give people a break," says Huber, "That helps people continue to have the WOW factor with the 3D, and it's full of hero moments – such as a spaceship flying over the stage."

Live and holographic

A key unifying theme of 3D Live's concert presentations is that instead of just showcasing visuals for visual's sake, they frame and appear to interact with live performers. The same concept was utilized for "Mass Effect: New Earth," where the live actor portraying the ship's captain not only interacts with action behind the screen, but with holographic controls and characters popping up in front of it. Because the 3D images are being produced by the LED panels, rather than from a forward-mounted



3D Live's inhouse studio, AXO, created "Ion Torq", a virtual reality game where players compete while sitting on motion base vehicles

projector, the actor does not produce a screen shadow and an element of realism is maintained.

At the 2017 IAAPA Attractions Expo, 3D Live showcased a gaming application for their 3D LED screens at the MediaMation booth. In just eight weeks, 3D Live's inhouse studio AXO created the virtual reality game "Ion Torq" where two two-person teams competed against each other in a shooting and driving game while wearing VR headsets and sitting in all-terrain vehicle styled motion bases.

Behind the vehicles sat a giant 3D Live LED screen. IAAPA attendees waiting in line to experience the VR game could don 3D glasses and experience on the screen what those on the attraction were seeing in real time. This application is part of 3D Live's strategy going forward, through which the company intends to change the way attractions are experienced. According to Christian Dieckmann, chief strategy officer of 3D Live, "In an attraction, this allows parents who may not want to ride to experience what their kids are experiencing."

The company is looking at ways of linking various forms of media. For example, in addition to the 3D LED screen providing images to those not riding or those in the queue, through connected data on their devices, aspects of the interactive attraction could be manipulated from both the queue and exiting parties. Huber points out that "the model that's been in place for the past 20 years has inherent limitations. We have to think outside the box. New tools, faster processing, and cross-platform communications will allow this."

Dieckmann adds, “The line, and also the exit, becomes part of the attraction. Crosstalk, tied to the overall experience, allows each group to manipulate the other.”

Expanding the game

3D Live is also looking at the cinema and competitive electronic gaming markets for its 3D LED screens. “When people are playing games on their computers, they’re being displayed in 2D,” says Huber, “But they’re actually being processed in 3D space, so the transition to a 3D screen is an easy one.” Without projectors, which limit the shapes of screens, the 3D Live screens do away with issues such as projector light, hot spots, and an inability to project true black images.

With e-gaming, one concept the company is developing involves covering all four walls of a room with the 3D LED tiles. “Without the needs for a projection window, we can get a continuous 360 degree 3D image,” says Huber.

For a spectator of a gaming competition, this expands the view to not only what the competing player sees, but what’s to their side and behind as well.

The company is also examining multi-use applications of its 3D LED screens for theme parks and attractions. “Without having to worry about projection, we can actually increase the curvature of the screen,” Huber points out, which would result in a more intimate and immersive image.

3D Live prides itself on its integration of the newest technologies with its screens and VR programs. As the public’s interest in virtual reality and augmented reality increases, according to Huber and Dieckmann, the interest increases for other forms of immersive entertainment, for which 3D Live’s 3D LED technology provides a versatile solution. •••

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Tracing the long arc of history

The National Museum of African American History and Culture is a stunning addition to the Smithsonian's lineup

by Judith Rubin

The \$540-million Smithsonian National Museum of African-American History and Culture (NMAAHC) opened on September 24, 2016, on a five-acre site on the National Mall. Located on Constitution Avenue between 14th and 15th Streets Northwest, NMAAHC is among 11 museums and galleries of the Smithsonian Institution located on the mall.

The 400,000-sq.-ft. building has five levels above ground and four below. It features 100,000 sq. ft. of exhibit space, with roughly 3,000 artifacts on public display. NMAAHC has fielded huge crowds since opening using timed ticketing. In February 2017, reported attendance topped one million, with an average dwell time of six hours.

NMAAHC was 13 years in the making. In 2009, the museum's architectural team of Freelon Adjaye Bond/SmithGroup was selected; David Adjaye was lead designer, and Phil Freelon was architect of record. In 2011, Clarke/Smoot/Russell was chosen as the construction firm. Landscape design was by the team of Gustafson Guthrie Nichol. Groundbreaking took place in February 2012. The building has many sustainable elements and is expected

to receive LEED Gold certification. The three-tiered, bronze-colored corona form of the building and its decorative, light-permeable facade draw upon African and African-American motifs.

In terms of the museum's contents, principal members of the creative team, interfacing with NMAAHC's internal team and curators, were Ralph Appelbaum Associates (exhibition design); Luce Group, LLC (exhibition lighting design); Electrosonic (AV systems design); and SH Acoustics (acoustics and audio system consulting). This team is now collaborating on the Obama Presidential Center, set to open in Chicago in 2019.

Design & Production provided fabrication, AV integration, and installation. Several key media elements for the exhibits (four films, 11 interactives, and 13 audioscapes) were developed by Cortina Productions; additional media/interactive elements were provided by Quatrefoil. Most media production was done under contract to the Smithsonian Channel, which gifted the media to the museum. Fisher Marantz Stone handled architectural lighting of the base building and temporary exhibit gallery.

This excerpted article first appeared in **Lighting & Sound America**. View the full original article online at www.lightingand-soundamerica.com/reprint/NMAAHC.pdf



View of Point of Plains slave cabin in Slavery and Freedom and Jones-Hall-Sims House in Defending Freedom, Defining Freedom- The Era of Segregation. Photo Credit: Aki Carpenter, RAA



The "Paradox of Liberty" in the Slavery and Freedom gallery. Photo Credit: Aki Carpenter, RAA

The Oprah Winfrey Theater was a separate-scope project with a different team, the principal members of which were Fisher Dachs Associates (theatre consultant) and Shen Milsom & Wilke, LLC (acoustician).

The Smithsonian internal team included Bryan Sieling (chief of design, assistant director for exhibition design and production, and acting associate director, office of project management and planning); Lynn Chase (retired director of project management); Andy Medalie, Carlos Bustamante, Dorey Butter, and Sabrina Kestell (project managers); Mike Biddle, Jimin Lee, and Dawn Neuendorffer (exhibit designers); Keith Madden (Oprah Winfrey Theater), and a team of curators, educators, collections managers and conservators. The museum's founding director is Lonnie G. Bunch III.

Inside the Galleries

Exhibits are organized chronologically and thematically. Visitors enter Heritage Hall at the ground level from either the National Mall or Constitution Avenue. An orientation theatre on this floor runs a show every 90 minutes.

Visitors descend to the main concourse leading to the three below-grade levels. Audio, produced by Cortina, plays during the elevator ride, taking one back in time and setting visitors up for the experience that begins at the lowest level. Emerging into a low-ceilinged, low-lit area, they begin their explorations. As visitors move forward in time, they also move upwards via a series of ramps back to the main concourse level.

The History Galleries play with scale. Some areas are low-ceilinged and symbolically confining; others open up and out, with high ceilings, wide sightlines, and natural light filtering in from the upper floors. Making the utmost of the combined height of the three concourse layers is a signature feature: the 50' x 250' Founding of America Wall, a complex display that tapped the full creative, technical, and collaborative powers of the team. It uses projections of large, still images combined with lighting, audio, and relief text to chronicle the sweep of history covered in the galleries.

Several of the museum's largest artifacts—a slave cabin, a log house, an airplane used by World War II's famed Tuskegee airmen, a prison guard tower from Louisiana State Penitentiary (Angola), and a segregated rail car—are also found in the history galleries.

Galleries focusing on community, comprised of four exhibitions: Making a Way Out of No Way, Sports: Leveling the Playing Field, Double V: The African American Military Experience, and The Power of Place. The museum's top floor looks at culture in four galleries: Visual Arts, Musical Crossroads, and Taking the Stage, all surrounding the signature, central Cultural Expressions Gallery with its 17-projector surround.

All LED

The Luce Group lighting design team, led by CEO Traci Klainer and CCO Richard T. Chamblin III, interfaced with D&P systems integration specialist Matt Swerzewski. "Creating continuity throughout the museum while also having points of interest and visual diversity was a challenge," Klainer says. "Our team took a great deal of time and effort, looking at all aspects of the design, including different fixture choices, color temperature. I believe this is the first museum of this size that is all LED [for the exhibits], as well as the first application of fiber-fed LED on this scale. It was important to the Smithsonian and the exhibit team to be energy efficient and have low-maintenance lighting solutions while always enhancing the collection."

The 50' x 250' surface of the Founding of America Wall features a collection of quotes displayed in relief text, increasing in size from the bottom up, topped by one from Langston Hughes. There are also embedded display cases with white text on glass and projection on its surface of Pyrock. "We decided to light the wall like a theatrical cyclorama, using tunable white LED striplights," says Klainer.



View of Civil Rights “Lunch Counter” and Angola State Prison guard tower in *Defending Freedom, Defining Freedom- The Era of Segregation*. Photo Credit: Aki Carpenter, RAA

AV and lighting

The official count for the AV system is 88 projectors, 153 small media players, 41 large media servers, 95 computers (mostly PCs) running interactives or control systems of some sort, and 165 monitors ranging between 22” and 90” (some 1080p, some 4K). All are controlled and monitored with a distributed Medialon show control system. There are some 14 projector blends, the largest being the 17-projector array in the Cultural Expressions Gallery.

The lighting system, an ETC Unison Paradigm with Mosaic show controller controls 33 universes of lighting (“We fought to have a single lighting control system,” says Klainer.) There are nearly 10,000 lighting fixtures and more than 750 fiber optic illuminators.

Interactives

The Lunch Counter in the second History Gallery is emblematic of how interactive exhibits can function simultaneously on the individual and group scales, and as entertainment and education. Users sit on stools at 12 individual workstations set into a countertop, evoking the landmark, nonviolent civil rights protests that took place at lunch counters in the 1960s.

Explore More! features interactive exhibits sponsored by corporate donors. It is family- and school group-oriented and includes classroom space and a library. The American Alliance of Museums (AAM) honored NMAAHC in 2017 with a Gold MUSE Award in the interactive kiosk category, for *Follow the Green Book*, in the Target Learning Center on the Explore More! floor. The Green

Book was an annual guide written for African-Americans to help them find businesses and accommodations where they would be welcome while on the road, in segregated, 1930s – 1960s America.

Cortina’s team collaborated closely with the Smithsonian IT department as well as D&P’s IT team on content management systems (CMS) for the interactive exhibits.

What it’s all about

“The best buildings tend to be those where the exhibits are developed alongside the architecture, and the spaces in the building take on the context of the exhibits,” says Steve Haas of SH Acoustics. “That happened here.”

“Our rich background in historical exhibits helped give us perspective for the challenge of NMAAHC—to ensure the technology functions as a platform for the curators to populate and immerse the guests in content,” says Yiannis Cabolis of Electrosonic.

“I used everything I learned throughout my career—lighting museums, theatre, themed entertainment,” Klainer says. “It was life-changing for me and I believe it is life-changing for the visitors.”

“To make something this monumental happen—to create a world-class museum—called for a world-class team of experts in their respective fields,” says Bryan Sieling. “It all came together beautifully to create a seamless, moving, and memorable experience for our visitors. At the end of the day, that is what it’s all about.” •••

From The Palm to The Frame

A chronicle of attraction development - and developers - in the Emirates

by Joe Kleiman

Attraction development and investment in the United Arab Emirates is currently in its second wave, with significant activity including the recent opening of Dubai Parks and Resorts, and the approach of the 2020 world expo in Dubai.

A look back

The booming first wave of UAE attraction development included the indoor ski resort Ski Dubai, which opened in 2005, and Atlantis, The Palm (opened in 2008), as well as Ferrari World Abu Dhabi, which opened in 2010. The latter was set to anchor the government-owned Miral Asset Management's Yas Island project. Ferrari World has since added new rides since opening, such as Flying Aces [see "Flying Aces: The story behind the steel," InPark issue #61, www.inparkmagazine.com/flying-aces-the-story-behind-the-steel-issue-61].

Atlantis, The Palm, a sister property to the famous Bahamian resort, is located at the tip of the Palm Jumeirah, a large man-made peninsula in the shape of a palm tree. The public experienced an aquarium, dolphin swim facility, and waterpark all at the foot of a luxury hotel, complete with a waterslide through a tank of sharks.

Atlantis, The Palm was co-developed by Kerzner International and Istithmar World, a development company owned by the Emirate of Dubai. In 2015, Istithmar sold its interest in the resort to Investment Corporation of Dubai (ICD), a holding company used by the government to maintain ownership of some of its

most prized assets. One year later, ICD purchased around 46% of Kerzner, which along with Istithmar's 25% stake, gave the Kuwaiti government controlling interest in the international resort company.

Attraction development in the UAE more or less paused in 2008 (see "Projects on hold," below) but has since resurged.

One park, multiple brands

The UAE has regained its footing as a major player in the international attractions market, but the development models have changed somewhat. Rather than single parks dedicated to an individual IP, licensed franchises that had been laid to rest have been resurrected at newly developed parks which showcase multiple brands.

A key example of this would be IMG Worlds of Adventure (opened 2016), located within the Dubailand property. Privately owned by Ilyas & Mustafa Galadari Group, it's said to be the world's largest indoor theme park. Licensed characters from Marvel and Cartoon Network, along with dinosaurs, can be found in four distinct themed neighborhoods. In 2016, the company announced plans for a second, even larger indoor theme park. At over 2 million square feet of space, licensed IP for IMG Worlds of Legends is set to include properties from Nickelodeon, Ubisoft, Saban, Pokemon, Mattel, Toei Animation, and Cartoon Network.



Looking back on The Palm from the peak of The Atlantis Resort Dubai. Photo Credit: Paul Williams



Shrek's Merry Fairy Tale Journey dark ride at Dubai Parks and Resorts. Photo courtesy Dubai Parks and Resorts

Dubai Holding and Meraas partner

Meraas, a Dubai government-owned developer, has a number of major projects in the Emirate, including retail and entertainment centers City Walk (2013) and Boxpark (2015). The company is also developing the artificial island community of Bluewaters, which will feature Ain Dubai, planned as the world's largest observation wheel.

One of the most prominent Meraas attractions is Dubai Parks and Resorts (2016), whose operating entity, DXB Entertainments, was spun off into a publicly traded company. The resort currently consists of a retail and entertainment complex called Riverwalk, a resort hotel, and three theme parks. The movie-themed MOTIONGATE Dubai and Bollywood Parks Dubai are managed under contract by Spanish theme park operator Parques Reunidos, while the neighboring LEGOLAND Dubai and LEGOLAND Dubai Waterpark, which will soon be joined by a LEGO themed hotel, are managed by Merlin Entertainments. A licensed Six Flags park is currently under construction and DXB Entertainments has been involved in the licensing of the Six Flags brand for a park in Saudi Arabia.

In 2017, DXB Entertainments established an attractions management division and began operating Meraas owned attractions throughout Dubai, including the Hub Zero video game attraction (2016), Splash Pad, The Green Planet tropical rainforest (2016), Mattel Play Town, and the Roxy Cinemas.

Another key announcement occurred in 2017 as a management exchange took place between government holding company Dubai Holding and Meraas as the two announced a joint venture company to construct new projects. One such project is the Marsa al Arab, a pair of artificial islands off the coast of Dubai that will feature both an expanded Wild Wadi Waterpark (1998), managed by Dubai Holding subsidiary Jumeriah Group, and a new marine life park. Dubai Holding also owns Global Village (1996), a major retail and entertainment complex, also in Dubai.

Smaller players, big attractions

Throughout Dubai are a number of smaller attractions, mostly found in shopping centers and mixed used developments. Majid al Futtaim, developer of the Mall of the Emirates (2005), manages a number of major attractions throughout Dubai and the Middle East. Ski Dubai (2005) is the only indoor ski slope on the Arabian peninsula and, as an added attraction, features live penguins that guests can swim with. Thirty minutes away, Orbi Dubai (2017) is the first location outside Japan for this virtual, natural history attraction, a joint venture of BBC and SEGA.

Publicly traded Emaar Properties is the developer of the \$20 billion Downtown Dubai complex, which includes the Burj Khalifa (2010), the world's tallest building, with its observation deck; the Dubai Mall (2008); and the Dubai Fountain (2009). Engineered by WET Design, it's considered to be the world's largest choreographed fountain. Its division Emaar Entertainment operates the Dubai Aquarium & Underwater Zoo (2008) and the UAE's first KidZania (2010).

Yas Island: fast cars and family fun

Just an Emirate away from the theme parks and attractions of Dubai sits Yas Island, developed by Miral, a development company of the Abu Dhabi government. Attractions on the island, which include a Formula 1 racetrack, luxury mall, Yas Waterworld waterpark (2013), and Ferrari World Abu Dhabi (2010), are managed by Miral subsidiary Farah Experiences.

Three new attractions are headed to this Abu Dhabi resort. 2018 will see CLYMB, an extreme sports complex that will feature the world's widest indoor skydiving chamber and the world's tallest climbing wall.

Also opening on Yas Island will be Warner Bros. World Abu Dhabi, an indoor theme park featuring six themed lands: Metropolis and Gotham City, inspired by the universe of DC Super Heroes and Super-Villains; Cartoon Junction, Bedrock, and Dynamite Gulch, themed after

Timeline of key UAE Attractions

1996	Global Village
1998	Wild Wadi Waterpark
2005	Mall of the Emirates Ski Dubai
2008	Atlantis, The Palm Dubai Mall Dubai Aquarium & Underwater Zoo
2009	Dubai Fountain
2010	Burj Khalifa Kidzania Dubai Ferrari World Abu Dhabi
2013	City Walk Yas Waterworld
2015	Boxpark
2016	IMG Worlds of Adventure Dubai Parks and Resorts Bollywood Parks Dubai MOTIONGATE Dubai LEGOLAND Dubai Hub Zero Green Planet
2017	Orbi Dubai Dubai Safari
2018	Dubai Frame

iconic animated brands such as Looney Tunes and Hanna-Barbera; and Warner Bros. Plaza, reminiscent of old Hollywood, where the studio's seminal characters and stories were originally brought to life.

In 2022 a fourth theme park will open on Yas Island – SeaWorld Abu Dhabi. The park, the first in the brand not to feature killer whales, will also include a research, rescue, and rehabilitation center for local wildlife. [See “Enter Esparza,” InPark issue #66, inparkmagazine.com/seaworld-enter-esparza/]

Projects on hold

In 2008, the same year Atlantis, The Palm opened on Palm Jumeirah, a major themed resort was announced for the tip of Palm Jebel Ali, an even larger man-made peninsula. A joint venture between government-owned Nakheel Properties and SeaWorld Parks & Entertainment, Worlds

of Adventure would feature animal parks branded to SeaWorld and Busch Gardens, an Aquatica waterpark, and a Dubai version of Discovery Cove, along with a retail and entertainment center. The entire complex would be shaped like a killer whale, large enough to be seen from space.

Also in 2008, another government-owned company, Tatweer, a division of Dubai Holding, announced three new theme parks for its Dubailand project, 107 square miles of residential, retail, sports, and entertainment facilities. Joining an already announced Universal Studios Dubai would be parks themed to LEGO, the Marvel Superheroes, and DreamWorks Animation.

A few months later, the Dubailand and Palm Jebel Ali projects were either put on hiatus or canceled altogether due to the global financial slowdown.

Concept evolution

Plans for attractions in the UAE are not always realized in their original form but concepts tend to stick around and show up in other ways. Once envisioned as anchoring entire theme parks of their own, the characters of Marvel and DreamWorks Animation instead share the spotlight with other IP from other studios. This is the case at two properties: IMG Worlds of Adventure (open since 2016) and MOTIONGATE Dubai (opened in 2017; see story on p. 32 of this issue). For its part, the LEGO park concept was revived in a new location. Also once destined for a resort of its own, SeaWorld will now open in a new format indicative of the company's new direction on Yas Island.

Two newly opened projects developed by the Dubai Municipal Government further illustrate this kind of concept revival. Dubai Safari (2017) is the culmination of 15 years of planning to provide a new home for the 1.5 hectare Dubai Zoo, built in 1967. At various times, the new park was to be located in Mushrif Park or Dubailand; in early 2009, the plans were placed on hold.

In 2012, the Dubai Municipality announced that the zoo would be relocated to 400 hectares in Al Warqa'a. 1,500 animals new to the operation joined 1,000 relocated from the original zoo campus. Based upon open zoo concepts such as the Singapore Zoo and the San Diego Zoo Safari Park, the park offers safari tours visiting animals of Arabia, Africa, and Asia. Conservation plays a key role and the park is heavily invested in the breeding of endangered species.

A bridge between past and future

Another Dubai Municipality project, The Dubai Frame (2018) in Zabeel Park, literally acts as a bridge between the past and the future of the Emirate. Standing 492

feet high, the giant structure acts as a picture frame, showcasing the older parts of Dubai on one side and the newer, cosmopolitan Dubai on the other. Guests enter the structure through a museum on the ground floor, telling the history of the Emirate. Essentially two towers with a bridge at the top between them, an elevator trip up one tower takes guests to an observation floor comprising the top of the frame. From here, they can look at either the historic or the newer parts of Dubai, and understand how the two are linked through a variety of augmented reality and media experiences. Smart glass in the floor clears up to reveal a view straight down to the bottom of the structure. After descending the opposite tower, they return to the ground floor, where a media presentation shows what Dubai will look like in another 50 years.

Linking tradition with progress

The concepts of renewal and linking to the past are key components of the biggest event to hit the region, the planned BIE-sanctioned Expo 2020. The logo for the Expo is based on a ring found at an archeological site in the Dubai desert dating back 4,000 years. The theme of the Expo “Connecting Minds, Creating the Future” examines ways to take older and modern concepts from throughout Middle East, Africa, and South Asia, and to link tradition with progress to trigger new thinking for a long-term effect in the region. The theme will be explored further through three subthemes – Opportunity, Mobility, and Sustainability.

Running from October 2020 through April 2021, 25 million people – a number roughly equivalent to the population of Australia - are expected to visit the Expo,

75% of them from outside the UAE. According to a 2014 analysis by Deloitte, the six-month run of the fair could result in 70 million room nights and an increase of \$10 billion in retail and consumer spending.

Such numbers will not only be a boon for local attractions, but for new ones opening by 2020 as well. In addition to the above listed attractions, 2018 will see the opening of Dubai’s Cityland Mall, described as the world’s first “nature-inspired” shopping mall; Al Qana, a new tourism and entertainment project in Abu Dhabi, home to a 5,000 square meter aquarium; and the Deira Islands Night Souk, a 1.9 km long modern interpretation of the traditional Arab souk.

As the Night Souk gives modern life to an ancient tradition, the concept of linking past to present will continue when the Expo ends as its logo inspired by the art of 4,000 years ago becomes the logo of one of the Expo’s biggest legacies: District 2020, a reconceptualization of the Expo grounds as a living community inspiring residents, artists, innovators, workers, students and visitors to “connect, create, and innovate.”

In the UAE, 2018 is being marked as The Year of Zayed, celebrating the 100th anniversary of the birth of Sheikh Zayed bin Sultan Al Nayhan. It’s only fitting that we close with a quote from Zayed, the founding father of the UAE:

“He who does not know his past cannot make the best of his present and future, for it is from the past that we learn.” •••

IMG Worlds of Adventure. Photo Credit: Paul Williams





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As a company, we strive to keep learning and stay on top in a fast-paced and ever changing environment with new technologies, cutting-edge products and world-class customer service.

We are honoured and thankful for the recognition of our team's hard work and

CONGRATULATIONS TO ALL THE WINNERS!



Brass Ring
Winner



PolinWaterparks

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