www.attractionsmanagement.com

Attractions MANAGEMENT

@attractionsmag

VOL 22 Q1 2017

simworx

Proud Supplier of Multiple Media-Based Attractions to

Dubai Parks™

AND RESORTS

simworx®

ROBOCOASTER®

The power to move you...

Proud Supplier to

Dubai Parks™

AND RESORTS

UNDERWORLD motionGate™ Dynamic

KUNG FU PANDA

COBRA MOTION THEATRE motionGate™ Dynamic

THOMAS & FRIENDS

4D CINEMA Thomas Land Town

RA·ONE

4D CINEMA Bollywood Parks Dubai

AGRA: WRATH

4D CINEMA

WORLD LEADERS IN THE DESIGN, MANUFACTURE & DEVELOPMENT OF 3D/4D DYNAMIC SIMULATION ATTRACTIONS

IMMERSIVE TUNNEL - DYNAMIC SIMULATION ATTRACTIONS

4D EFFECTS CINEMA - ROBOCOASTER RCX - 3D/4D FILM CONTENT

IMMERSIVE VR ATTRACTIONS - FLYING THEATRE - AGV DARK RIDES

Worldwide Head Office
Simworx Ltd
37 Second Avenue
The Pensnett Estate
Kingswinford
West Midlands
DY6 7UL
United Kingdom

W www.simworx.co.uk
E sales@simworx.co.uk
T +44 (0) 1384 295 733
F +44 (0) 1384 296 525

www.attractionsmanagement.com

Attractions MANAGEMENT

@attractionsmag

VOL 22 1 2017

Matthias Li

Meet Ocean Park's new CEO

BURN BABY BURN

Universal's top creative on Volcano Bay

After Dark

Engaging young adults with museum lates

40+ new attractions for 2017

NOLAN BUSHNELL

Atari founder breaks into VR

DOWNLOAD THE FULL REPORT *FOR FREE* HERE

bit.ly/redraionmovies

DREAMING OF INCLUSIVITY

Exciting new kit is being used to support people with disabilities ranging from blindness to missing limbs. This opens up the possibility of creating attractions where they can enjoy the experience with friends and family in a way not previously possible

Imagine being able to create an attraction which is equally accessible and enjoyable for people with physical or sensory disabilities and the able bodied. We could enable families and friendship groups with members who struggle with their vision, mobility or senses to enjoy a day out where everyone can fully participate, with all the joy that brings.

Now that possibility is increasingly within reach, thanks to a raft of new technology emerging in the fields of 3D sound, virtual and augmented reality (VR and AR), robotics and brain computer interfaces (BCI).

We, as an industry, need to be paying very careful attention to these developments.

Some of this exciting new technology was on show recently at the world's first Cybathlon, held in Zurich, Switzerland. This event – essentially a bionic Olympic Games – saw severely disabled people competing in a range of different races, challenges and tasks using the latest robotics and innovations in prosthetics. This included powered exoskeleton races, powered prosthetics races and BCI races, where competitors used brain signals both to control avatars in a specially developed computer game and also to control various devices, such as motorised tractor wheelchairs.

Unlike the Paralympics, where athletes are prohibited from using powered aids, Cybathlon puts technology at the centre of the competition, showcasing its potential uses in day to day life for those with severe disabilities.

There are many directly transferable ideas for attractions innovators which could be gleaned from strong collaboration with the research and development teams working on these projects in labs and universities around the world.

Also exciting is the development work being done around VR and AR technology, where some truly groundbreaking discoveries are being made in relation to sensory challenges.

Oculus Touch, part of the Oculus VR system, is enabling people born with missing fingers to experience what it's like to have a full set – the technology tricks the brain, so that actual sensation can be felt in fingers which have never been there.

> It's possible to foresee a day when this technology gives designers a set of tools with which to design the next generation of attractions

This is thought likely because feelings of phantom movement are modulated by the parts of the brain that deal with sight, so the brain is reorganising in response to the experience.

Researchers are also finding powerful ways to connect people with vision impairment to the everyday world around them. These include wearable VR and AR aids which respond to the wearer's head movement and magnify whatever they're looking at. These systems have enabled users with limited vision to see more clearly and, in some cases, to read.

Auditory and haptic virtual environments which enable blind people to experience environments and build brain maps of them are also being developed using 3D sound technology.

It's possible to foresee a day – once all this wonderful emerging technology has been developed and democratised through low-cost applications – when designers have the right tools to create the next generation of inclusive attractions.

Liz Terry, editor. Twitter: @elizterry

Tel: +44 (0)1462 431385 attractionsmanagement.com @attractionsmag theteam@leisuremedia.com

p10 Nolan Bushnell launches Modal VR

p34 Matthias Li, CEO of Ocean Park Hong Kong, on community, creativity and competition

p42 A world-first Marvel exhibition is just one of many new openings in the industry this year

p66 After-hours events target young adults

05 Editor's Letter

10 People
Meet the people making the news, from tech legend Nolan Bushnell to Jimmy Fallon

20 Science Centres news
21 Visitor Attractions news
22 Waterparks news
24 Theme Parks news
26 Museums & Galleries news
28 Heritage news
30 Zoos & Aquariums news
32 Technology news

34 Interview
Matthias Li
Matthias Li, chief executive at Hong Kong's Ocean Park, on his response to a changing visitor profile and rising competition

42 Pipeline
Opening Doors
There's an array of attractions set to launch. We anticipate the hot debuts of the year

52 Tourism
A Plan for Oman
The Ministry of Tourism's Maitha Al Mahrouqi on Oman's status as a budding destination

56 Waterparks
Volcanic Activity
Universal Creative's Dale Mason on the inspiration behind Volcano Bay

60 Museums
A New Home
London's Design Museum has moved. We found out about this unusual project

66 Museums
Fashionably Lates
New kinds of programming are engaging younger audiences. Museums Sheffield's Rosie Eagleton shares her research

 ©CYBERTREK 2017

■ p56 Dale Mason, Universal Creative, on taking waterparks to a new level with Volcano Bay

■ p82 Greg Hale on the power of sharing

■ p76 Shaun the Sheep at Skånes Djurpark

■ p60 London Design Museum has relocated. We asked the museum director about the move

72 Analysis
The Attractions Business
Consultant David Camp asks the all-important question: how do attractions make money?

series Part 5

76 Attractions
Flock to it
Norwegian operator Lund Group on how Aardman's Shaun the Sheep helped reinvigorate the troubled Skånes Djurpark

82 Profile
Greg Hale
We sat down with IAAPA's new chairman

86 Technology
Virtual Ventures
Multi-player VR start-ups like The Void and Zero Latency are set to explode

90 Themed design
Keeping it Real
Analysis: authenticity in themed design

96 Attractions-kit.net
Product Innovation
Suppliers unveil new product launches

100 Web Gallery
A source of attractions services

On the cover: Nolan Bushnell

Subscribe:
To subscribe, call: +44 (0)1462 471915 or visit www.leisuresubs.com

Web gallery:
For suppliers of products and services in the worldwide attractions industry, turn to page 100

the team

READER SERVICES

Subscriptions
Denise Adams
+44 (0)1462 471930

Circulation manager
Michael Emmerson
+44 (0)1462 471932

EDITORIAL TEAM

Managing editor
Alice Davis
+44 (0)1462 471918

Editor
Liz Terry
+44 (0)1462 431385

NEWS EDITOR

Tom Anstey
+44 (0)1462 471916

NEWSDESK

Matthew Campelli
+44 (0)1462 471912
Kim Megson
+44 (0)1462 471915

ADVERTISING TEAM

Publisher
Julie Badrick
+44 (0)1462 471919

Advertising sales
John Challinor
+44 (0)1202 742968
Jan Williams
+44 (0)1462 471909

WEB TEAM

Internet
Michael Paramore
+44 (0)1462 471926
Dean Fox
+44 (0)1462 471900
Tim Nash
+44 (0)1462 471917
Emma Harris
+44 (0)1462 471921

PRODUCTS EDITOR

Kate Corney
+44 (0)1462 471922

DESIGN

Andy Bundy
+44 (0)1462 471924
Ed Gallagher
+44 (0)1905 20198
Jack Emmerson
+44 (0)1462 471136

FINANCE

Denise Adams
+44 (0)1462 471930
Rebekah Scott
+44 (0)1462 471930

Attractions MANAGEMENT

Choose how you read Attractions Management...

PRINT

Attractions Management is available in glossy print on subscription. You can sign up any time at leisuresubs.com

DIGITAL

Read Attractions Management free on Digital Turning Pages and enjoy extra links and searchability

PDF

The magazine is also available as a PDF edition for readers who want to read offline or on tablet

OTHER RESOURCES FROM ATTRACTIONS MANAGEMENT

Attractions Handbook

The latest industry stats, trends and analysis all in one place: The Attractions Management Handbook is a reference guide and global resource for decisionmakers.

- **Read it online:** www.attractionshandbook.com/digital
- **Download the PDF edition:** www.attractionshandbook.com/pdf

Attractions Management E-zine

The Attractions Management e-zine brings the best of the week's news and jobs to your inbox every Wednesday. Covering everything from science centres and theme parks to museums, zoos and planetariums.

- **Sign up here:** www.leisuremedia.com/subscribe

attractions-kit.net

The search engine for buyers lists contacts and details for 5,000 suppliers. Find all the connections you need to streamline your buying and get news via the weekly e-zine.

- **Visit the website:** www.attractions-kit.net
- **Sign up for the e-zine:** www.leisuremedia.com/subscribe

attractionsmanagement.com

Attractions Management's website features daily attractions news and jobs, as well as access to digital editions of Attractions Management and links to other Leisure Media magazines and websites.

- **Visit the website:** www.attractionsmanagement.com

AM2

Our sister title focuses on news, jobs and training. It has a daily website, www.am2.jobs, an e-zine and instant alerts service.

- **Read it online:** www.am2.jobs/digital
- **Download the PDF edition:** www.am2.jobs/pdf
- **Sign up for the e-zine:** www.leisuremedia.com/subscribe

Instant alerts & RSS

Get the news as it happens and find out about the latest job openings and tenders the second they're posted online, by signing up for our free, customisable instant news alerts and RSS feeds.

- **Sign up here:** www.leisuremedia.com/subscribe

 ©CYBERTREK 2017

MORE TO ENJOY...

What's hot in Leisure Media's magazines

HEALTH CLUB MANAGEMENT

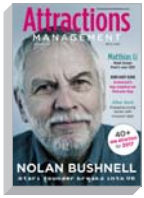
- John Reed and Cyberobics: new club concepts from McFIT
- Greg Oliver's bold plans for growth
- Boutique fitness meets mindfulness in the US

CLADMAG

- Swiss architect Peter Zumthor on emotional spaces
- Richard Meier on protecting public places
- Urban planner Jan Gehl on building people-friendly cities

SPA BUSINESS

- Linda Evangelista – inspiring product creation at Biomimetic
- Lanserhof's Nils Behrens and his medical spa brand
- Wellness communities – new series starts



ATTRACTIONS MANAGEMENT

- Ocean Park CEO Matthias Li on dealing with rising competition
- Atari's Nolan Bushnell launches VR company
- Using museum lates to engage emerging adults

Read all of our latest magazines & back issues online: leisuremedia.com

SPORTS MANAGEMENT

- Dave Ryding puts skiing in the spotlight
- Chris Grant, CEO of Sported, is using sport for social change
- Are temporary structures more sustainable?

LEISURE OPPORTUNITIES

- UK Sport defends value of Olympic medals
- Dreamland plans more improvements
- Liverpool ready to host Commonwealth Games if Durban backs out

SPA OPPORTUNITIES

- Kempinski debuts Havana hotel spa
- Cliff-top spa set to open at historic Lake Lucerne Swiss resort
- WTS designs concept offering for line of Donald Trump spas

AM2

- Tourism and consumer shifts drive expanding theme park market
- Endowments for arts face axe under US president Donald Trump
- Stebich named new Smithsonian director

Attractions People

‘Years from now it will be possible to jack into the system – like in The Matrix’

Nolan Bushnell entrepreneur and businessman

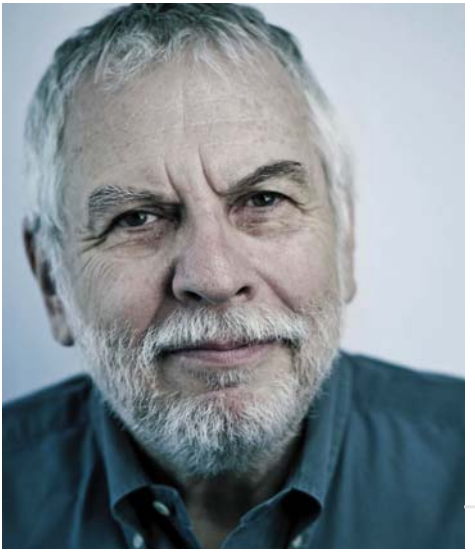
“You’re meeting me in my crazy laboratory,” says the man speaking to me over Skype – exactly the sort you’d expect to be an inventor, dreaming up things most people have never considered, in his “cave” of components and wires. “My kids say I could use all this to build a space shuttle.”

The man is Nolan Bushnell, best known as the creator of the Atari games console, the device that laid the foundations for the formation of the video arcade and modern video game industries. Having gone on to establish a number of successful technology businesses, Bushnell is now turning his hand to virtual reality – and plans to take the medium to the next level with Modal, a system which uses standing sensors, combined with a full body-tracking suit and VR headset. It’s designed to focus on commercial installations, with the technology, developed for the higher end of the VR market.

“We’re focusing strictly on what I call commercial capability. That means the systems need to be very robust,” says Bushnell, who at this point has to excuse himself to respond to a half-built robot that’s interrupting our conversation.

“We can put 10 people into the same VR construct,” he says, once he has quietened the robot. “We can track users over an area the size of a football field and we can set up and tear down in 10 to 15 minutes. Put all those things together and it means we can do industrial training, create laser tag installations and entertainment constructs.”

“We’re doing really good foundational code so it will be easy for software creators to put their software on top of it,” he says. “We’re going to create an app store. We want to be the nexus, the centre of gravity for all the commercial uses of VR. If you’re a police training company, for example, and want to do something in VR – we’re your guy, we’re the platform.”



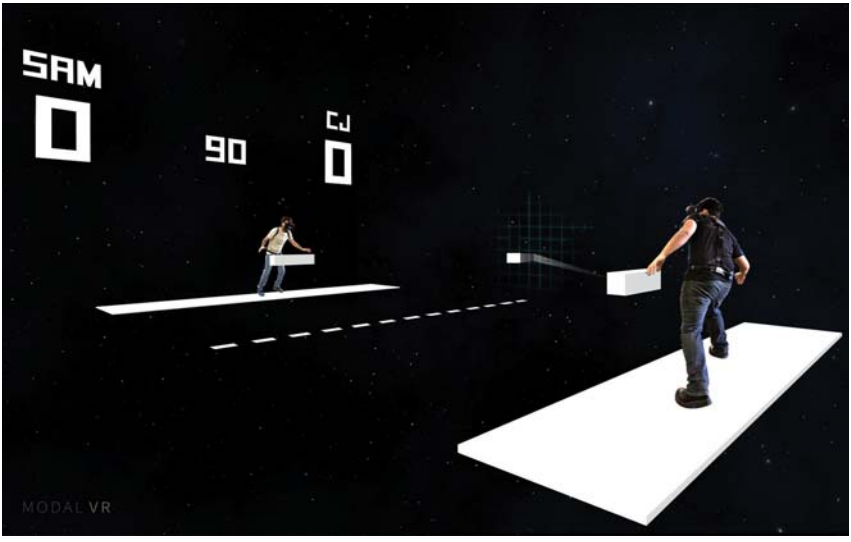
Nolan Bushnell founded the game developer and home computer company Atari in the early 70s

Mass appeal

The key to the technology’s success, says Bushnell, will be if it can appeal to all customers, not just enthusiasts. He’s planning the same approach he took when developing the first games for Atari.

“Any time you have a new technology, start out really simple. There are some standard gameplay mechanics that are good places to start. For example, we remade Pong in VR, with the player acting as the bat – there’s nothing simpler.”

 ©CYBERTREK 2017



With virtual and augmented reality a relatively new medium –at least to the mainstream – Bushnell believes that understanding it as a concept will also be key to its success or failure.

"We're trying to understand VR as a new kind of movie," he says. "With a movie, the director controls the point of view. But what happens when the viewer can wander around and choose their own standing point? They become like a ghost in the scene that's being played out, choosing where they stand. Is that fun? Is that interesting? We're trying to work that out."

Bushnell and his team used the medium of VR to create a physical, interactive game of the iconic *Pong*

VR, of course, raises some challenges and these obstacles will rear their heads sooner rather than later.

"The downside of anything new is the rule of unintended consequences – there's always going to be a 'gotcha' somewhere down the line," he says. "What if someone falls over in a VR construct – who's liable?"

PHOTO: MARK LENIHAN/PRESS ASSOCIATION

In 1976, Bushnell rejected Steve Jobs' offer of a third of his company, Apple, for $50,000

Bushnell compares the situation to when a child runs, falls and injures himself in a Chuck E Cheese, the American arcade-style FEC chain he founded in the late 1970s.

"Sometimes parents think we're responsible and occasionally they sue. Those things are part of the business risk of doing what you're doing. People are much more unpredictable than technology."

An inventor by passion, not just profession, Bushnell has an eye on what's coming next, with some radical predictions for the not-too-distant future.

"In 10 years, I think it's going to be normal for people to have some kind of a brain implant," he says. "You'll be able to augment memory, communicate with others and things like that. This will be done by combining wetware, not just hardware."

Chiefly a term drawn from science fiction, wetware uses a model for artificial systems based on biochemical processes. The technology would create messages manifested through chemical and electrical influences that spread across the body, based on the idea that human brain cells act as computer systems. According to Bushnell, as wetware technology is developed, it will advance quickly.

"Once you start having those interfaces into your brain and into your nervous system then hijacking that for entertainment is going to be easy," he says. "Thirty years from now I think it's going to be possible to jack into the system – like in The Matrix."

‘The aim is to inspire the visitor to want to go out and experience the real Everglades for themselves’

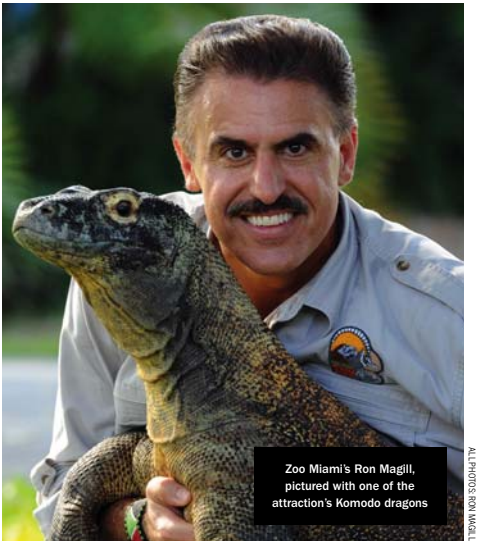
Ron Magill director of communications, Zoo Miami

Zoo Miami is in Ron Magill’s blood. As he celebrates his 37th year at the Florida attraction, he’s also celebrating the opening of the long-awaited Mission Everglades exhibit, which focuses on the wildlife and habitats of the zoo’s own doorstep.

Built with an investment of $33m (€31m, £26m), the 4.5-acre (1.8-hectare) expansion features 60 different species native to the region, including alligators, crocodiles, black bears, the Florida panther and a variety of birdlife. The aim is to give visitors an understanding of the importance of the Everglades and demonstrate that local wildlife is under just as much pressure from loss of habitat as species further afield.

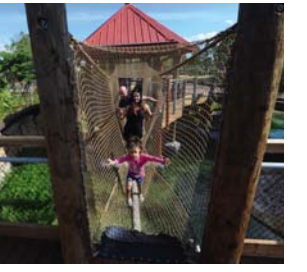
“Florida: Mission Everglades is the culmination of many years of understanding the need to have an exhibit that showcases some of the amazing wildlife that occurs right in our own backyard,” says Magill, director of communications at the zoo. “It’s a condensed trip through this natural treasure, providing some amazing up-close and interactive experiences that would be extremely rare or impossible in the wild.”

Entering Florida: Mission Everglades, visitors first experience the aviary and the ►



Zoo Miami’s Ron Magill, pictured with one of the attraction’s Komodo dragons

ALL PHOTOS: RON MAGILL



Children in the croc tube (left); viewing the bears (above); crossing the rope bridge above the alligators

 ©CYBERTREK 2017

The Florida panther is one of the rare species on show at Florida: Mission Everglades, Zoo Miami

Mission Everglades exhibits inlcude (clockwise from top left) otters, wood ducks, alligators and bald eagles

lake, where they see a variety of indigenous birds such as blue jays, red-bellied wood peckers, pelicans, ibis and herons. Next visitors can enjoy the river otter exhibit and the crocodile exhibit, both of which feature underwater transparent viewing tunnels, before going on to meet land mammals like the black bear and the endangered Florida panther – with live demonstrations between zookeepers and animals – and a variety of native reptiles and amphibians.

Lastly, visitors enter the boardwalk where they can take a rope bridge across the alligator's watery den, learn the story of the zoo's rehabilitated bald eagles and climb the treehouse to spot the bobcat, racoon and grey fox. All this is complemented by the cypress-themed adventure playground and cafeteria and a new boat ride, the Lostman's River Ride.

Magill joined the zoo in 1979. He has also set up a conservation charity

Threatened ecosystem

"The aim is not to satisfy one's curiosity about the Florida Everglades, but rather to ignite a passion for it that will inspire the visitor to want to learn more and go out and experience the real Everglades for themselves," says Magill, who started his career at the facility as a zookeeper in 1979. "The message is that all of these natural treasures are directly connected to us in providing not only beautiful wild areas for us to enjoy and visit but also being our main source of fresh drinking water and that to compromise any of these elements can threaten the entire ecosystem which could have catastrophic effects on our quality of life."

Due to its many innovations and several "firsts" for the zoo, the project posed a fair number of challenges. Some elements had to be dropped in order to stay on budget, and the project was delayed several times due to the demands of the complex engineering and building needed.

"The Life Systems Support elements alone were the largest ever done at the zoo and required a tremendous amount of planning and development," says Magill.

Magill, who founded the Ron Magill Conservation Endowment to support conservation of the wild counterparts of the zoo's exhibits, says Mission Everglades has received an overwhelmingly positive response in its first couple of months, the only complaints being that the Florida panther and bald eagle are fairly timid and difficult to see and that the boat ride, which costs $5 per guest, has had mixed reviews.

"With the panther and bald eagle, it's take time for them to become more comfortable. With the boat ride, we are currently exploring enhancing the ride as well as alternative pricing options."

With this project, Zoo Miami is investing in its own surroundings to help preserve the Everglades long into the future.

Magill says: "We believe that most visitors will come to the natural conclusion that the Everglades is too beautiful and important to lose and will remember the impact that their visit made on them when it comes to making decisions in the future regarding the protection and wellbeing of this precious environment."

 ©CYBERTREK 2017

U.PORTO CIÊNCIA VIVA ecsite

2017 Ecsite Annual Conference

PORTO, PORTUGAL

15–16–17 JUNE

life EVERYWHERE

THE EUROPEAN CONFERENCE
FOR SCIENCE ENGAGEMENT

www.ecsite.eu

Kim Gladstone Herlev joined Experimentarium in January 2003

‘Our aim is to be among the five best science centres in the world’

Kim Gladstone Herlev executive director, Experimentarium

Denmark’s only science centre has undergone a mass redevelopment, with its new spiraling copper staircase the centrepiece of the former brewery.

Originally opened in 1991, Experimentarium, in Hellerup, adopts a hands-on approach, with visitors able to try out a number of scientific experiments. After starting renovation works in 2014, plans were hampered when the building was largely destroyed by fire, delaying progress for several months. The centre reopened in January with two additional floors added on top of the 110-year-old building.

At the helm is the executive director of three years, Kim Gladstone Herlev, who has been at Experimentarium since January 2003, where he started as director of communication.

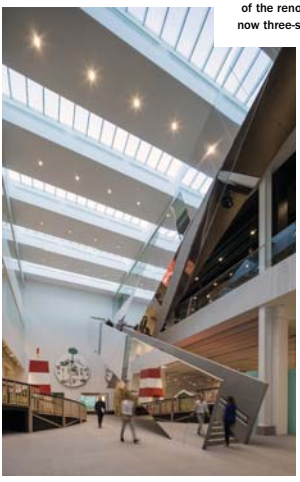
Experimentarium is located in a former Tuborg beer bottling plant in Hellerup, Denmark

“It’s always been a challenge to be in a building originally intended for different purposes,” says Gladstone. “We became a huge success in Denmark. Everyone knows Experimentarium and because of that we saw the opportunity to do something really amazing here.”

The building uses the foundations of the city’s old Tuborg beer bottling plant, retaining the first floor of the brewery and building the DKK880m ($126m, €118m, £100m) expansion above it.

“We built on top of the history, the history of science in fact, because the brewing process is science,” says Herlev. “It has the same footprint on the ground but it’s twice the size it was before.”

 ©CYBERTREK 2017



A huge spiralling copper staircase is the centrepiece of the renovation of the now three-storey building

PHOTOS: ADAM MØRK

Due to its expansion, Experimentarium has room for 16 new exhibitions – all brand new and built over three storeys, following the theme of the centre as "universes".

"The idea is that we are like a 'city' and we make small universes within this construct," says Herlev. "One universe could be themed like a factory of ideas, another could be the cinema, or the beach, or the harbour. The design of each of these 16 universes is very different. Some will be high-activity areas, some will be reflective areas – that's the idea."

Phoenix from the ashes

The 2015 fire, which "more or less completely destroyed" the building, occurred in the midst of redevelopment. Because of the ongoing works, the science centre's staff and exhibits had – by a good stroke of fortune – been temporarily moved to Papirøen in Copenhagen Harbour, meaning while the building had been gutted the majority of the collection was safe.

Rising like a phoenix from the ashes, Herlev has ambitious plans for the reborn Experimentarium science centre.

"At Easter we will open our rooftop where you can be outside doing open-air science experiments, which is very exciting," he says. "In January 2018 we will open the first floor, which will be a science city for kids aged one to five years old. We do not have many museums that cater specifically to children in Denmark so this is a very exciting thing for our country.

"Our aim is to be among the five best science centres in the world within the next few years. If you compare us to facilities in Europe, Experimentarium is different from a lot of other science centres," Herlve says. "We're able to show things that have never been shown in this context before. It's very exciting."

Race Through New York is a 3D flying theatre opening in April at Universal Orlando

‘You can’t have a ride without puppies and a 40-year-old dressed as a teenage girl’

Jimmy Fallon TV host and comedian

Jimmy Fallon’s dream of having a theme park ride based on his personas and TV show is about to be realised.

The TV star, who presents the popular *Tonight Show Starring Jimmy Fallon*, came up with the idea for his own attraction and pitched it to Universal.

Now the ride, Race Through New York Starring Jimmy Fallon, has an official launch date of 6 April at Universal Orlando, promising the ultimate *Tonight Show* experience and a wild ride through the city.

The 3D ride will be a 72-seat flying theatre, with appearances from show announcer Steve Higgins as well as Grammy award-winning band, The Roots, who wrote the original attraction score.

Riders will speed through the streets of New York and all the way to the moon and back, encountering iconic landmarks such as the Statue of Liberty and the Empire State Building as they race against Fallon.

“It’s like visiting New York City by going on the craziest, awesomest rollercoaster simulator and going to the *Tonight Show* all in one ride,” Fallon says. “It’s the most amazing thing I’ve ever done. It’s so cool. It’s the most exciting, fun thing ever.”

It’s a multi-sensory experience, so riders will be getting wet from the river, smelling pizza and “floating” on the moon. There’ll also be cameos from some of Fallon’s alter egos, including teenager Sara and her puppies, and Jimmy Tight Pants.

“You can’t have a ride without puppies and a 40-year-old dressed as a teenage girl,” Fallon says. “You need both of these things, or else it’s not an attraction.”

Fallon’s career started on *Saturday Night Live* in 1998. He’s appeared in films like *Taxi*, *Fever Pitch*, *Ted 2* and the *Arthur* films.

Fallon will host his TV show at Universal to coincide with launch the new ride

 ©CYBERTREK 2017

NSC creative

THE IMMERSIVE STORYTELLING STUDIO

NSC CREATIVE IS AN AWARD-WINNING UK STUDIO
WITH 15 YEARS OF EXPERIENCE IN IMMERSIVE MEDIA

VR • DOME • THEME PARKS • ATTRACTIONS • MUSEUMS

NSCCREATIVE.COM

Science hub under way at Olympic Village

Dutch design agency NorthernLight is working on the redevelopment of Sochi's Olympic Village, which is turning its former media centre from the 2014 Winter Olympics into a science and art park.

The redevelopment of Sirius Park, which has been at the heart of Russia's talent programme, will take place in two phases, ultimately becoming the country's largest educational attraction at 50,000sqm (538,000sq ft).

Phase one of the development is scheduled to be finished in February 2018, in time for the Fifa World Cup, and will include a 6,000sqm (64,500sq ft) indoor science attraction.

The new addition is like a "crossover of an art biennale and science gallery", according to NorthernLight.

PHOTO: NORTHERN LIGHT

The new centre combines art and science galleries

Included in the centre will be demonstrations of kinetic art, immersive light experiences and bio art, while the attraction will also have design, chemistry and bio labs. In these labs, future exhibits will be shown to the public and children will be invited to participate in the testing of the exhibits. Phase two of development will include a number of science zones, each covering 8,000sqm (86,000sq ft).

Details: http://lei.sr?a=d7s4M_T

Mars the focus for Kennedy Space Center plan

Florida's Kennedy Space Center is planning a mass expansion of its visitor complex, unveiling a five-year masterplan to build on the success of its hugely popular space shuttle Atlantis exhibit that opened in 2013.

Mars will be one of the major focuses in the next five years, with a Mars Rover attraction in the works, as well as a new attraction that will very briefly allow visitors to experience zero-gravity or increased G forces similar to astronauts at takeoff.

Delaware North, the company which operates both the Visitor Complex and recently relaunched Hall of Fame, say the Mars Rover concept vehicle will be part of a Mars Deep Station attraction, which could open as early as 2021.

PHOTO: KENNEDY SPACE CENTER

The centre has enjoyed success with its Atlantis addition

The company has also promised "something big" for the Astronaut Hall of Fame, which last year moved to the visitor complex's main campus as the new Heroes and Legends addition.

Plans also include an expanded Astronaut Training Experience primarily focused on a simulated mission to Mars, with the facility able to accommodate 176 – up from the current 94.

Finally, the Launch Complex 39 observation gantry will be transformed into an learning centre with a Mars simulation and a launch viewing centre.

Details: http://lei.sr?a=f9G2v_T

INDUSTRY OPINION

Charming Porto to provide backdrop to 28th Ecsite conference

Mikko Myllykoski

More than 1,000 professionals from about 50 countries will get together in Porto, Portugal, for the 28th Ecsite Annual Conference from 13 to 17 June. This friendly event is open to everybody. The growing Ecsite family is welcoming and attracting inspired people from beyond Europe and beyond science centres.

Five days of pre-conferencing and conferencing from 13 to 17 June will be filled with networking, sharing ideas, making business and dreaming up future projects. Sessions range from experiential design to teenager engagement, from gaming to learning ecosystems. The social programme takes advantage of Porto's charms, its Douro river and stunning historic landmarks. More than 60 exhibitors attend the Business Bistro trade fair.

There'll be two keynote speakers. Nina Simon, author of two impactful books about the culture of making a difference, *The Participatory Museum* (2010) and *The Art of Relevance* (2016), will question the very core of our mission. Simon is an excellent fix for *Attractions Management* readers: her insight on participation and relevance is not limited to the world of science – nor just museums.

The other keynote speaker could not be more relevant in the so-called "alternative facts" era. As the author of *The Incredible Unlikeliness of Being: Evolution and the Making of Us* (2014) and professor of public engagement at the University of Birmingham, Alice Roberts is an expert on making evolution understood – a field where ignorance is only part of the problem.

There is "life everywhere", as the conference theme states, but in June there will be much life in Porto.

Visit: *ecsite.eu/annual-conference*.

Mikko Myllkoski, experience director at Heureka, and Ecsite ACPC chair

Two Bit Circus plans run of next-gen micro-amusement parks

Entertainment engineering collective Two Bit Circus has announced plans for a portfolio of next-gen micro-amusement parks fuelled with the latest AR and VR technologies.

The Los Angeles, California-based Two Bit Circus – founded in 2012 by Brent Bushnell and Eric Gradman – aims to bring the exciting side of engineering and technology to life for a younger generation, inspiring them with lasers, robots, interactivity and gamification, and to "convert non-STEM kids into STEM kids".

Each of the new locations, which will cover approximately 30,000sq ft (2,800sqm), will showcase the latest high-tech entertainment and original content from Two Bit Circus and key brand partners, with its creators envisaging the attractions for malls and retail complexes.

The new venture is an evolution of Two Bit Circus' STEAM Carnival – a touring pop-up-style event first taking place in October 2014 that gets kids to engage with science, technology, engineering, art and maths in hands-on fun environment.

"Out-of-home entertainment hasn't changed much since laser tag and mini-golf," said Bushnell. "The latest tech has just blown the doors open on a whole new world, changed what it means to play, and play together socially. People stress about tech pushing people apart, but we love watching it bring them together."

PHOTO: TWO BIT CIRCUS

The new venture is an evolution of Two Bit Circus' STEAM Carnival concept

According to Two Bit Circus, the attraction will include the latest in multi-person VR and mixed reality, social play experiences, group games, molecular gastronomy, mixology, and "liberal" use of lasers, fire and robots.

Details: http://lei.sr?a=j6x5h_T

The plan was released on 6 February

Development plan for Coney Island unveiled

Coney Island could be about to gain a number of new attractions after the City of New York called for development of 150,000sq ft (14,000sqm) of new attractions along its boardwalk.

Five parcels of land have been allocated for the proposed works, all sitting along the boardwalk near the Thunderbolt and Wonder Wheel rides, and further out towards MCU Park – home to the Brooklyn Cyclones.

Details: http://lei.sr?a=y3s8Q_T

Doug Stagner named new IAAPA COO and EVP

IAAPA has named attractions veteran Doug Stagner as its new COO and executive vice president – a newly created position designed to help the organisation achieve its goals and handle growth and global infrastructure.

Stagner, who has been a part of the attractions industry for more than 32 years, started his career in 1984 as a ride operator at SeaWorld San Diego. From there, Stagner worked his way up the SeaWorld ladder, holding a variety of positions including roles in operations, business development, and strategic planning and execution. Most recently as SeaWorld's vice president of international operations, Stagner was overseeing the company's expansion into Asia.

PHOTO: IAAPA

Doug Stagner receives the IAAPA Meritorius Service Award

For IAAPA, Stagner sits on the organisation's board and is former chair of its education committee. In 2013 he was the recipient of the IAAPA Meritorious Service Award.

In his new role at IAAPA, Stagner will report to president and CEO Paul Noland, while directly overseeing management of global membership, communications, education, talent and IAAPA's four regional offices. Additionally, he will play a significant role in IAAPA's relocation to Orlando later this year.

Details: http://lei.sr?a=f2y2P_T

CA$65m waterpark opens in Quebec

The Aquatic Development Group (ADG) is behind designs for a new waterpark in Quebec, Canada, which recently opened its doors.

The indoor waterpark, developed at a cost of CA$65m ($49m, €46m, £40m), is the first of its kind in the province.

The Polynesian-themed, 10-hectare (25-acre) Bora Parc features advanced waterpark technologies, including the FlowRider system, a 4,000sq ft (371sqm) wave pool and an adventure wave river using ADG's WaveTek technology.

The facility has a 1,000-person capacity, 14 slides and a family area with its own pool and separate activities. Dry options include private cabanas and a restaurant terrace with space for private events.

PHOTO: AQUATIC DEVELOPMENT GROUP

The waterpark has 14 slides and a family area

A part of the Village Vacances Valcartier Resort, Bora Parc was added to the destination to increase the average length of stay, also providing a market differential to stand out from competitors.

The waterpark was the vision of the resort's former president, Guy Drouin, who died from cancer just days before its opening. Since 1972, Drouin has invested more than CA$130m ($98m, €92m, £79m) in upgrading the resort and tourist attraction's facilities.

Details: http://lei.sr?a=K8H4P_T

Six Flags intensifies China push with waterpark

Six Flags' rapid overseas expansion is ramping up with plans to build a new waterpark next to China's first theme park operating under the brand's banner.

Sitting adjacent to Haiyan's under-development Six Flags Zhejang, the waterpark will open at the same time as the theme park, with Six Flags Hurricane Harbor including waterslides, a wave pool, a lazy river and a water play area for kids.

PHOTO: SIX FLAGS HURRICANE HARBOR

Six Flags Hurricane Harbor will include a number of slides

The theme park and now waterpark are at the heart of a $4.6bn (€4.4bn, £3.7bn) resort development in Hangzhou Bay, with Chinese real estate development firm Riverside Investment Group (RIG) behind the plans.

RIG – which currently has more than $3.5bn (€3.2bn, £2.5bn) in assets under management – is partnering with Six Flags on the mixed-use development, which is expected to create more than 100,000 jobs.

Six Flags CEO John Duffey recently revealed to *Attractions Management* plans to build "multiple" Six Flags parks in China in the next 10 years, all in partnership with RIG.

A franchise model has been set up to support the upcoming parks, with confirmed plans for two in Vietnam, while further Asian expansion could well be on the way, with plans rumoured in Malaysia.

Details: http://lei.sr?a=E7w9t_T

INDUSTRY OPINION

Invest in your team to inspire next generation of waterpark leaders

Aleatha Ezra

As we closed the books on another year, it didn't escape our notice how many industry leaders and true innovators we lost in 2016.

Truly, our global water leisure industry has been propelled forward by great men and women who have each left their mark on the way waterparks are built and the experiences these facilities deliver.

Their passing is both a chance to celebrate their amazing contributions and a reminder that we need to be building up our next generation of leaders. Our industry cannot break ground in emerging markets without strong leaders ready to take over the highest management positions.

We need to spend more time investing in the growth and development of middle managers and those who are starting out in the water leisure industry. Fortunately, there are plenty of resources available locally, nationally and internationally – many of which are accessible online.

The WWA has a number of tools and programmes dedicated to the development of emerging leaders, from a special membership category to online learning programmes to a scholarship that allows someone to attend the WWA Show at no cost. Visit waterparks.org to learn more.

Attractions Management's leisurediary.com is a comprehensive online directory of professional development events. The tool allows you to search dozens of events taking place all over the world and narrow down by categories like seminar, training, webinar or exhibition. Resources for training abound, so make 2017 a year to invest in your team with the goal of inspiring the next great industry leader.

Aleatha Ezra, director of park member development, WWA

 ©CYBERTREK 2017

EVERY PARK NEEDS A COASTER

We've been working hard on water coaster science — we've been innovating this technology since we invented the first LIM-powered water coasters *more than a decade ago* — and we *just changed the game.*

There's nothing like it. In the world.

- **Higher**, faster and longer.
- **100% more** capacity.
- **50% less** water and energy use.

Watch this: proslide.com/rocketblast

Every park needs a coaster.
Do you have *yours yet?*

We should talk.

Abu Dhabi's Ferrari World invests in major new attractions

Yas Island's Ferrari World is receiving investment of AED700m ($191m, €178m, £153m) for developments of new rides and experiences, including its landmark Turbo Track, which will snake out from the heart of the iconic structure through its roof.

Yas Island owner Miral is making the investment as it targets more visitors for Abu Dhabi in the midst of a wider push for overseas tourism.

Turbo Track – which will reach speeds of 102kph (63mph) and climb 62 metres (203 feet) will open in March – with recently released images showing the ride climbing out from the middle of the Ferrari World building, entering the Yas Island skyline.

In addition to Turbo Track, a Ferrari car simulator will be added to the park, with a total of four new rides to be added by the end of this year and a further four in 2018, bringing the total up to 43.

In October, Yas Island announced plans for a new business strategy and brand identity to establish the development as "the world's ultimate leisure destination."

Yas Island's development first started in 2006, initiated by Abu Dhabi-based Aldar Properties, with the aim of turning the island into a multi-purpose leisure, shopping and entertainment centre.

Most recently, the project broke ground on a $1bn (€919m, £820m) Warner Bros theme park – the latest in a series of major developments to be operated by Farah Leisure, which include the already established Ferrari World and Yas Waterworld. Furthermore, SeaWorld plans to open on Yas Island by 2022.

■ Details: http://lei.sr?a=S2E3a_T

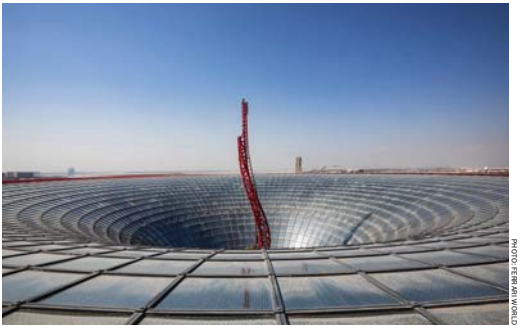


PHOTO: FERRARI WORLD

■ The top of the new rollercoaster extends out through the centre of Ferrari World

■ The park could be open by 2018

Silay mayor confirms theme park plans

Silay City in the Philippines could be about to get a new PHP600m ($12m, €11m, £10m) theme park after its mayor confirmed development plans following months of speculation.

Silay City mayor Mark Golez confirmed that the proposed park is expected to open during 2018, with investors of Enchanted Kingdom – the country's largest park – along with other backers, covering development costs.

■ Details: http://lei.sr?a=e5J9S_T

Japan drives revenue as Universal figures soar

Comcast's acquisition of Universal Studios Japan has paid dividends, as the company confirmed a 48 per cent rise in revenue.

Continuing to reflect the inclusion of Universal Studios Japan following its $1.5bn (€1.4bn, £1.2bn) majority acquisition near the end of 2015 and the continued success of the new Wizarding World of Harry Potter attraction at Universal Hollywood, Universal's theme parks have reported huge numbers for Q4 and 2016 overall.

Comcast – the parent company of Universal – reported a rise in Q4 theme park revenue of 32 per cent to $1.3bn (€1.2bn, £1bn) for Q4 2016, with operating cash flow increasing by 42 per cent to $640m (€598m, £510m) for the quarter. For 2016, year-on-year theme park revenue increased 48 per cent to $4.9bn (€4.6bn, £3.9bn), with operating cash flow increasing by 50 per cent to $2.2bn (€2bn, £1.7bn).

Taking into account Universal Japan's figures before Comcast acquired its majority share in the park, pro forma revenue increased by 12.7 per cent, reflecting higher attendance and per capita spending, as well as the positive impact of a stronger yen, while pro forma operating cash flow increased 12.2 per cent.

■ Details: http://lei.sr?a=A7X9x_A

PHOTO: SARUNYU J / SHUTTERSTOCK

■ The acquisition of Universal Japan has boosted Comcast

 ©CYBERTREK 2017

50

ZAMPERLA®

The Amusement Ride Company since 1966

KOLOBOK
JUNIOR COASTER
PORKIES TRAIN
MIDI DISCOVERY
Nineverted
Truckstop
TURTLE TRAIN
MINI TAGADA'
HYDROLIFT
RESCUE 911
Barnstormer
MOTO COASTER
BARNYARD
Red Baron
FAMILY SWINGER
Rio Grande
SKY RACE
CHATTANOOGA TRAIN
AIR RACE
Thunderboxe
JUNIOR JET
CONVOY
BALLOON RACE
FERRIS WHEEL
MINI FERRIS WHEEL
Bumper Cars
SKY
FLYING CAROUSEL
TOWER
Super Twister Coaster
JUMP AROUND
SOMBRERO
SPEEDY COASTER
Jumpin' Star
SHOCKER
CLOWN AROUND
Suspended Monorail
EL PASO
Skater
DISK'O COASTER
AEREOMAX
Discovery Revolution
ENDEAVOUR
VOLARE
FLUME RIDE
Twist&Bounce
WINDSTARZ
SURF'S UP
MEGABOXE
VERTICAL SWING
PONY EXPRESS
Mini
Pony
Rodeo
POLYP
Jet
AERO
TOP JET
MERRY GO ROUND
DEMOLITION DERBY
ROCKIN' TUG
PONY TRAIN
Discovery
CHOO CHOO TRAIN

SAMBA BALLOON
Zodiac
SKY DROP
PEOPLE EXPRESS
Telecombat
SUPER EXPRESS
Power
Surge
FLYING
MIDI
FAMILY SWINGER
TIGERS
MINI MOUSE
Sombrero
Air Force
GALLEON
Kite Flyer
DRAGON
POWER
CRAZY BUS
COASTER
SURGE
Giant Discovery
Wave Blaster
TWISTER COASTER
MONOPLANE
FLASH
Family Gravity Coaster
ROTOSHAKE
TOWER
BACKFLASH
SUSPENDED WINDSHEAR
Hawk
NORTH POLE
Disk'O
ZIP ZAP RACER
Turbo Force
MINI TEA CUP
REGATTA
FERRIS WHEEL
CRAZY SURF
Jumpin' Star
SAMBA
Canoe
TAGA JZ-FORCE
TOWER
River
Watermania
SPEEDWAY
DEMOLITION DERBY
Giant Sky
ENERGY
THUNDERBOLT
Chaser
STORM
TEA CUP
Super
SOMBRERITO
Happy Swing
RIDE
Spin
AERIAL RIDE
U-DRIVE
MINI TRAIN
Discovery Revolution

YearZ

of Amazing Fun

These have been 50 years of
hard work, creativity, innovation and successes.

zamperla.com

Antonio Zamperla Spa Vicenza - Italy Phone: +39 0444 998400 e-mail: zamperla@zamperla.it

Met forced to delay redevelopment for up to seven years

New York's Metropolitan Museum of Art has delayed plans to redevelop its southwest wing by as long as seven years, as the famous institution aims to get its finances in order.

Deficits have led the museum to cut $31m (€29.1m, £25.4m) from its annual operating budget, something it has achieved with voluntary buyouts and layoffs, also increasing retail revenue in its stores.

With the museum trying to balance its books by 2020, the $600m (€563.4m, £492.4m) plans to develop the southwest wing have been pushed back, meaning they won't be completed in time for the institution's 150th anniversary. Money will still be spent on development of the museum however, with the Met prioritising replacing the skylights and roofing system above the European paintings galleries – with work to start in 2018 and be completed by 2022.

The wing, which houses the Met's collection of modern and contemporary art, will eventually be gutted and redeveloped by David Chipperfield, with plans to move temporarily into the former Whitney Museum – now the Met Breuer.

In addition to more gallery space, the redevelopment could double the size of the Met's famous roof garden and create a new entrance from Central Park.

The project could also create more on-site storage and and an overhaul of a number of the museum's spaces, including Arts of Africa, Oceania, and the Americas gallery.

■ Details: http://lei.sr?a=j8s7g_T

PHOTO: METROPOLITAN MUSEUM OF ART

■ David Chipperfield is the architect pencilled in to design the postponed redevelopment

■ Hunt replaces director Martin Roth

V&A appoints British MP as new director

Labour MP Tristram Hunt has stepped down from his parliamentary position in order to become the new director of London's Victoria and Albert Museum (V&A).

Hunt will replace former V&A director Martin Roth, who resigned from his position as director of the V&A in September – a decision fuelled in part by his disillusionment at the result of the recent Brexit vote.

■ Details: http://lei.sr?a=T2s8V_T

State takes over Poland's new WWII museum

The Museum of the Second World War in Poland faces an uncertain future after the country's Supreme Administrative Court gave permission for the ruling nationalist Law and Justice Party (LJP) to take control of the independent museum.

The recently completed $12.3m (€11.4m, £9.8m) museum in Gdansk was due to open in February.

However, the LJP – which since coming into power in 2015 has assumed control of the state broadcaster, civil service and the country's highest court – opposes the museum because of its approach to telling the story of the Second World War, with the government's opinion being the museum should focus only on Poland's history.

PHOTO: CZAREK SOKOLOWSKI/PRESS ASSOCIATION IMAGES

■ Poland's ruling party will assume control of the museum

The LJP can now legally take control of the museum, meaning the government will merge it with the yet-to-open Museum of Westerplatte and the War of 1939.

According to Piotr Glinski, minister for culture, the merger will focus on Polish aspects of the war, though the museum's director, Pawel Machcewicz says that limiting the museum to the defence of Poland would not show the entirety of the country's experience of the war. The court ruling means Glinski will be able to nominate his own director who can change the museum to fit the government's needs.

■ Details: http://lei.sr?a=F5z2C_T

 ©CYBERTREK 2017

POWERFUL MEDIA SERVING FOR THE WORLD'S GREATEST ATTRACTIONS AND EXPERIENCES

7th Sense

THEME PARKS | ATTRACTIONS | DOMES | 3D | MUSEUMS

www.7thsensedesign.com

Extensive renovations set to guarantee future of Eiffel Tower

France's most iconic landmark is about to undergo a €300m ($320m, £260m) renovation, with officials announcing a massive 15-year project that will preserve the attraction for many decades.

The 128-year-old structure, originally designed by Gustave Eiffel as a temporary structure for the 1889 Universal Exhibition, now attracts more than 7 million visitors a year and is a symbol of the French capital.

Works will include a full structural analysis, with plans also to replace the structure's lighting systems and elevators – some of which use the tower's original workings. Improvements will also include modernisation of security technology and enhancement of visitor experience through improved facilities.

Around €20m ($21.4m, £17.4m) will be invested each year over a 15-year period, an increase from the €13.7m ($14.6m, £11.9m) spent each year on essential maintenance of the tower, which is also repainted every seven years over 20 months.

The announcement coincides with Parisian officials' plans to host the 2024 Olympic Games and the 2025 World Expo. The project will be managed by the tower's operator, the Société d'Exploitation de la Tour Eiffel. The renovation proposal will be presented to Paris council at the end of January for final approval.

The tower most recently underwent major works in 2012 – a project completed in 2014 that included a walk over glass floor, shops, restaurant and an events and conference space, all on the tower's first floor. Prior to that, major work had not been carried out on the tower since 1986.

■ Details: http://lei.sr?a=p2S2R_T

PHOTO: SHUTTERSTOCK.COM

■ The 128-year-old Parisen landmark attracts more than 7 million visitors a year

PHOTO: AP PRESS ASSOCIATION IMAGES

■ Many heritage sites have been decimated

France gives €28m to war zone heritage

France has contributed €28m ($30m, £24m) towards the protection of cultural heritage sites during conflicts, signifying the first step in creating an international wartime fund aimed at preventing heritage destruction.

Created in coordination with Unesco, the fund will be used to prevent destruction of historical sites, fight illegal trafficking and pay for the restoration of sites damaged in conflict.

■ Details: http://lei.sr?a=Z2T4P_T

Outrage as Stonehenge tunnel plans finalised

Controversial plans for a road tunnel near Stonehenge have been finalised, with campaigners opposing the development claiming it would cause "irreparable damage" to the surrounding landscape.

The plan, which has been created to ease traffic congestion around the ancient site, would see the a new four-lane 1.8-mile (2.9km) tunnel built, which the Department for Transport says would remove the sight and sound of traffic from the famous monument.

Among Britain's top tourist attractions, Stonehenge welcomes more than 1.3 million visitors annually, but it is only accessible by a series of small country roads linking London with the southwest.

PHOTO: CHRIS ISAAC/PA ARCHIVE/PA IMAGES

■ The move attempts to ease congestion around Stonehenge

The Stonehenge Alliance – the main body opposing the £2bn ($2.4bn, €2.3bn) roadworks – say "permanent harm" would be done to a landscape "considered the most archaeologically significant land surface in Europe without parallel."

"All archaeology in the zones would be destroyed and the A303 would become the largest ever human intervention in an area revered by over a hundred generations of our ancestors," said the Alliance in a statement on a petition opposing the plans, which has more than 22,000 signatures.

■ Details: http://lei.sr?a=C3R6A_T

A Global Leader in the Tourism & Leisure Design Industry

IDEATTACK®

Tourism & Leisure **Zones**
Theme Parks & **Water Parks**
Themed **Resorts** & Amenities
Cultural **Attractions**
Mixed-Use **Retail** & Lifestyle **Centers**

MasterPlanning
Concept Design
Detailed Design
Attraction Design
Feasibility Study
Brand Design

IDEATTACK Inc.
1055 E Colorado Blvd
Suite 500
Pasadena, California
91101 U.S.A.
Phone 626-204-4087
info@ideattack.com

ideattack.com

SeaWorld San Diego bids adieu to controversial orca show

SeaWorld Parks & Entertainment has taken the next big step in its company-wide evolution, with its San Diego park hosting its final theatrical orca show, a staple of the entertainment giant for many decades.

The live animal spectacular is to eventually be replaced by a natural version of the show – designed to "educate rather than dazzle" – one of the main contributors to the negative public perception of SeaWorld has been its orca performances.

"Today the shows are more in the style of Cirque du Soleil," said SeaWorld CEO Joel Manby, speaking in the Q3 2016 edition of *Attractions Management*. "The orcas are jumping in unison five at a time and they're trained to do things that some consumers see as unnatural. Our new orca encounter is more Discovery Channel, more educational. It shares the plight of wild whales but is still engaging."

The new-style show will be rolled out to SeaWorld Orlando and San Antonio by 2019. The news of San Diego's final show was followed by the death of the killer whale Tilikum, an icon of SeaWorld for decades. Tilikum was also known for causing the death of trainer Dawn Blancheau in 2010, when she was pulled underwater by the 12,000lb (5,443kg) bull orca. The story became the subject of the *Blackfish* documentary that severely damaged the company's public image.

PHOTO: DMITRIZOZOB / SHUTTERSTOCK

SeaWorld's orca shows have been criticised, consequently affecting visitor numbers

"Tilikum had ... a special place in the hearts of the SeaWorld family and the millions of people all over the world that he inspired," said Manby. "My heart goes out to our team who cared for him like family."

Details: http://lei.sr?a=R7e8Y_T

Visitors have increased by 12 per cent

Chester Zoo breaks attendance records

Chester Zoo welcomed more visitors in 2016 than any other UK zoo in history, with just shy of 1.9 million people flocking to see the Cheshire attraction's collection of 20,000-plus animals. The zoo has had a bumper couple of years, thanks in-part to both its £40m (US$48.6m, €46m) Islands expansion, and it television exposure in BBC drama *Our Zoo* and the hit Channel 4 docu-series *The Secret Life of the Zoo*.

Details: http://lei.sr?a=W3K6b_T

Vancouver Aquarium to end beluga captivity

Vancouver Aquarium has outlined ambitious expansion plans for the next 12 years, which includes the eventual phase out of its captive beluga programme.

The aquarium was left reeling last November when two of its whales died in quick succession, with Aurora and her daughter Qila dying just days apart, leaving the facility with its signature tank empty.

As part of the CA$100m ($76m, €72m, £61m) expansion, the aquarium is building a larger enclosure for its Arctic beluga habitat. Up to five belugas currently on loan to other facilities are expected to be on display by 2019, though they will be non-breeding animals. The aquarium will no longer house whales by 2029 – the same year its operating license expires.

Aurora was one of two belugas to die at the aquarium

"The aquarium has announced a new 12-year beluga conservation programme centred on a small group of non-breeding beluga whales that will be brought back to Vancouver from peer accredited institutions to participate in an expanded Marine Mammal Research Programme," the aquarium said in a statement.

Beyond 2029 the aquarium will still work with belugas, but says its conservation work would continue "further afield".

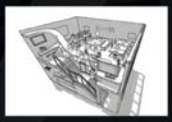
Details: http://lei.sr?a=H3s4p_T

 ©CYBERTREK 2017

scruffydog DESIGN CREATE DELIVER

DESIGN PRODUCTION & INSTALLATION OF LEISURE ATTRACTIONS, EXPERIENCES & ENVIRONMENTS

OPENING MARCH '17
NEW LONDON DESIGN STUDIO



WE'RE AT DEAL DUBAI
VISIT US AT
BOOTH #1-A116

blooloop IAAPA TEA

www.scruffydogltd.com

Call today to discuss your project
Head Office UK: 0800 211 8604
Outside UK: +44 (0) 121 730 2400

facebook.com/scruffydogltd instagram.com/scruffydogltd twitter.com/ScruffyDogLtd linkedin.com/company/scruffy-dog-group-ltd

Google plans to distribute AR platform Tango to museums

Google's augmented reality platform Tango is partnering with a number of museums, offering visitors starting at the Detroit Institute of Arts opportunities to interact with works using the technology.

Devices capable of hosting Tango utilise sensors not found in most phones, allowing added depth and scale, which in turn allows digital overlays to be applied more accurately over 3D surfaces.

Visitors to the museum can request the use of a Lenovo Phab 2 Pro – the first Tango-enabled smartphone – using the handset to learn more about different artefacts, with examples offered including revealing the inside of a mummified body, visualising lost architecture and showing limestone works with their original colouring.

Developed by GuidiGo, an app developer that previously created augmented reality museums guides for the currently on-hold Google Glass project, the Tango app will also include quizzes and games.

Following its initial run in Detroit, Tango will be rolled out to a number of yet-to-be-named museums, enhancing the interactive experience for institutions worldwide.

Tango-enabled devices can be used to explore museum exhibits in augmented reality

"Museums can be great teachers. From art and science to culture and natural history, they educate and inspire us. Still, display signs and audioguides can only convey so much. What if you could explore museums in a different way," said Justin Quimby, senior product manager for Tango. "This is just the beginning of how you'll be able to use Tango to see more, hear more and learn more. Stay tuned as we bring Tango to even more museums around the world."

Details: http://lei.sr?a=R9g4R_T

The patent has a number of applications

Universal planning to use drones in parks

Universal is hot on the heels of Disney after filing a patent for use of drone technology at its parks in the US.

Universal City Studios – a sister division to Universal Parks & Resorts – published a patent covering "special effects techniques," including water, scent cannons, compressed air blasts, steam, theatrical smoke or fog, snow, bubbles, confetti, flame effects, or directional speakers and other audio.

Details: http://lei.sr?a=B3G7A_T

Hugo Barra joins Facebook to lead VR charge

Facebook has named Hugo Barra its vice president of virtual reality, with the Brazilian tech wizard and entrepreneur to head up the company's Oculus programme.

Barra, who previously ran Chinese phone maker Xiaomi's global division has also served in a number of product management roles at Google in London and California, including as vice president of Android.

During his time at Xiaomi, Barra worked on the company's own virtual reality headset, also launching a range of new smartphones.

"Hugo is joining Facebook to lead all of our virtual reality efforts, including our Oculus team," said Facebook CEO, Mark Zuckerberg. "I've known Hugo for a long time, starting when he helped develop the Android operating system, to the last few years he's worked at Xiaomi in Beijing bringing innovative devices to millions of people.

"Hugo shares my belief that virtual and augmented reality will be the next major computing platform. They'll enable us to experience completely new things and be more creative than ever before. Hugo is going to help build that future, and I'm looking forward to having him on our team."

Barra joins Facebook as vice president of virtual reality

Details: http://lei.sr?a=H3s4p_T

 ©CYBERTREK 2017

INTRODUCING:

Extended Experiences™

WHERE EVERYTHING IS POSSIBLE

Eliminate queue line boredom, inter-connect every attraction making your whole park come alive in peoples' hands using Holovis real-time, mixed reality, extended experiences.

- Transforms passive park activities into active, participative experiences
- Benefits wider park ecosystems by increasing dwell times & monetisation opportunities
- Deepens guest brand engagement, even after their visit, promoting higher return rates
- Easily scalable, compatible with all mobile devices

Holovis®
Transforming Sensory Experiences

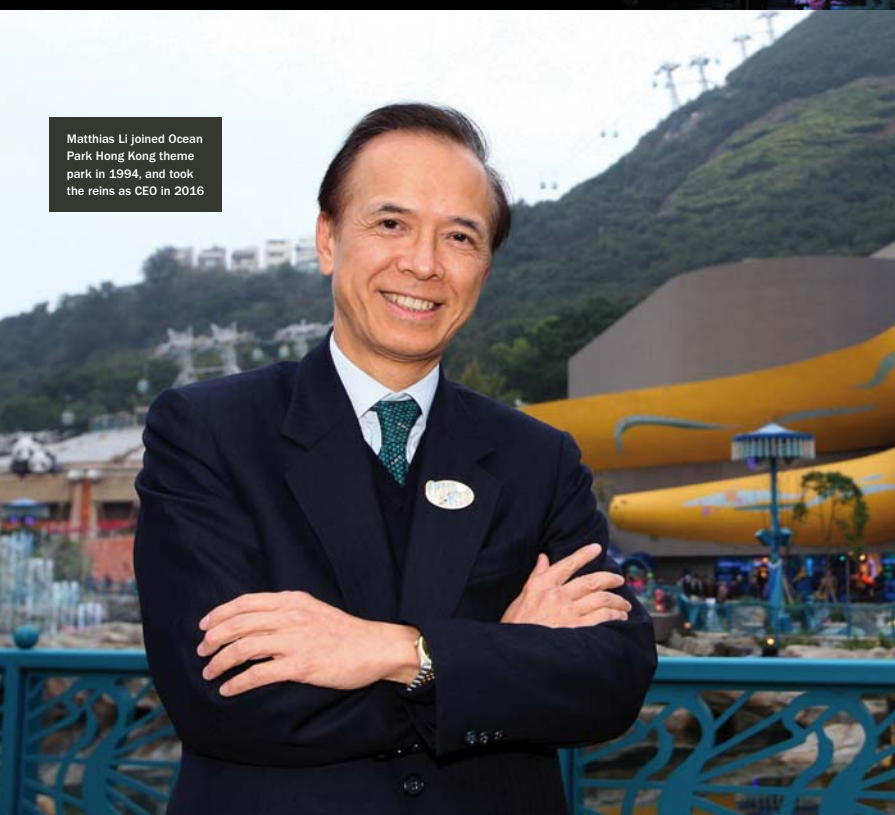
Proud to have delivered: The Battle for Cedar Point

INTERVIEW

MATTHIAS LI

Ocean Park Hong Kong is one of the most established and respected parks on the Asian continent, setting the bar for the industry. How are things shaping up under the new CEO?

Alice Davis, managing editor, Attractions Management



Matthias Li joined Ocean Park Hong Kong theme park in 1994, and took the reins as CEO in 2016

 ©CYBERTREK 2017

Ocean Park consists of a marine park, zoo, aquarium, waterpark and theme parks

It was a difficult year for Ocean Park Hong Kong. In 2016, the marine theme park reported a near 20 per cent fall in visitors and a HK$241m ($31m, £25m, €29m) deficit – highly unusual – for the fiscal year.

This was caused by a combination of circumstances that created a perfect storm for the Hong Kong tourism industry. There were several contributing factors.

"Hong Kong is currently facing extremely tough business challenges, especially in the tourism sector," says Ocean Park CEO Matthias Li Sing-chung. "The market is facing some headwinds due to the declining economy, downturning retail environment, depreciation of currencies of other Asian destinations, and change in tourism-related policy. All of this has played a part in eroding Hong Kong's competitiveness against other regional cities and affected tourist arrivals to the city, as well as to tourist attractions like Ocean Park."

It's marked an eventful start for the new CEO, who only took the reins from outgoing boss Tom Mehrmann in July. Li's no stranger, though, having been part of the Ocean Park family since he joined as finance director in 1994. If anyone can navigate the tempest, it should be Li.

"Over the past 22 years, I've developed a deep passion for Ocean Park, not only from working with the entire staff to transform a local recreational facility into an international tourist destination, but also from experiencing up-close the pride locals derive from their park," Li says. "Now, as CEO, my immediate focus is to face the challenges presented by the changes in Hong Kong's visitor profile and the intense competition in the region."

In recent years, tourism to Hong Kong was rising, reaching an all-time high of ▶

> Through the ups and downs of the past 40 years, we've always believed it's crucial to remain well connected to the community

60.8 million in 2014. However, in the two years since, those numbers have taken a hit, falling 4.5 per cent from 2015 to 56.7 million last year. In turn, that's affected Hong Kong's attractions.

In its year ending 30 June 2015, Ocean Park welcomed 7.4 million guests, its third-highest attendance on record. That made it the 15th-most visited park in the world, according to the annual TEA/AECOM report. This was topped off by its second-highest ever total revenue (HK$1.9bn, $243m, £205m, €238m) and a surplus of HK$45.2m. However, for the financial year ending June 2016, the park received just 6 million guests, a decline of 18.9 per cent.

THE MAINLAND FACTOR

Hong Kong Disneyland was also affected, attributed to the fall in the number of tourists from Mainland China – a demographic that once made up almost eight out of 10 visitors to the autonomous territory. A series of anti-tourist protests by Hongkongers unhappy with the huge surge in Mainland visitors is at least partly to blame. Reports show the number of visitors from China fell 50 per cent in the first half of 2015 as a direct result of the protests. Hong Kong's image as a hospitable place was tarnished, and many Chinese decided to go elsewhere, flying instead to Thailand, South Korea, Japan, Singapore, Malaysia and Vietnam.

With 120 million Chinese travelling abroad each year, it's a huge piece of the pie to lose out on. Countries like Japan, Malaysia, Indonesia, Thailand and the US lifted visa restrictions on Chinese visitors, making trips easier to arrange than those to Hong Kong, where travel permits and visas are still required. Other factors, too, influenced Mainlanders' decisions.

"Competition from other regional destinations, the strengthening HK dollar against the renminbi and other currencies, and slowing economic growth in China have affected Mainland visitor flows to the city," Li says. "The Hong Kong Tourism Association predicts the city will continue to see a 10 per cent drop in the number of group visitors and 20 to 30 per cent drop in the number of FITs [free independent travellers] from Mainland China."

In past years, 50 per cent of Ocean Park's visitors were Chinese, with 35 per cent from Hong Kong. This demographic has altered, as now about 40 per cent are Chinese and 40 per cent are local. The next core markets are Taiwan, South Korea, India and the Philippines.

PEOPLE'S PARK

So, what is Li to do in the face of these facts and figures? Well, first and foremost, he's not painting a gloomy picture – anything but. This year marks Ocean Park's 40th anniversary, and there has been a celebratory mood, especially among the locals. In fact, the attraction's reputation as the "people's park" is one of the foundations of its success over the years.

It's a "homegrown" operation that dates back to 1977, when it was funded by the Hong Kong Jockey Club and built on land donated by the government. In the early 80s, the Jockey Club funded further development and rides, until 1987 when Ocean Park Corporation was formed, a financially-independent, not-for-profit organisation with a government-appointed board. Ocean Park reached a defining moment in 2005 with the launch of a HK$5.5bn ($709m, £573m, €665m) Master Redevelopment Plan (MRP), taking the park from a mid-size attraction to a global destination. The master plan doubled the number of the site's attractions and rides, included the opening of Old Hong Kong, which recreates the streetscape and ambience of the city 50 years ago.

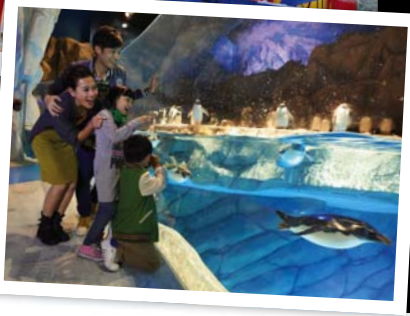
Last year alone, 2.4 million Hongkongers visited Ocean Park, that's one-third of the

 ©CYBERTREK 2017

WHITEWATER'S WORLD CLASS ATTRACTIONS TEAM DOUBLED OUR CAPACITY WITHIN THE SAME FOOTPRINT

WHITEWATER®

whitewaterwest.com



Polar Adventure, which opened in 2012, features Arctic Blast (top) and South Pole Specatacular

domestic population. More than 450,000 of them benefited from complimentary or cut-price admission, as the park offers free entry to under threes, over 65s, registered disabled and all residents on their birthday.

"Through the ups and downs of the past 40 years, we've always believed it's crucial to uphold our local appeal and remain well connected to the community," Li says.

STAYING CREATIVE

The 90-hectare (222-acre) Ocean Park is situated on the southern side of Hong Kong Island at a bay called Tai Shue Wan. Overlooking the South China Sea, the resort consists of two areas, the Waterfront and the Summit, connected by cable cars and the Ocean Express funicular. The park has over 80 attractions, with the Summit home to a wide variety of thrill and family rides. There are live shows at the Ocean Theatre dolphinarium, designed to "educate and entertain", and the chance to visit the Ocean Park Tower, one of the tallest observation towers in Southeast Asia. At the Waterfront, themed areas include Amazing Asian Animals, where some of the continent's rarest species are on display.

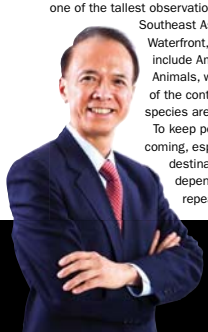
To keep people coming, especially for a destination that's dependent on repeat visits from locals, Li knows it's important to keep innovating. "As the years go by, it's important to stay creative to win guests over," he says.

On that note, there are major developments coming down the track. The most exciting must be the brand new year-round waterpark on the site of the old Water World facility, opening in 2018. There are two hotels on the way, the Ocean Park Marriot Hotel and the Fullerton Hotel @ Ocean Park. The children's play zone Whiskers Harbour is also being modernised. And, in December, a transport link opened, the MTR South Island Line (East), which connects central Admiralty to Ocean Park Station in just four minutes.

NEW INVESTMENTS

"The all-weather Water World will stay open late to offer night attractions for the local community and international tourists," Li says. "The MTR South Island Line significantly enhances our connectivity across the entire area of Hong Kong, making a visit to Ocean Park even more convenient. It will likely facilitate increased guest visitation from both locals and FITs. The opening of the hotels will enable us to extend the visit duration of our guests, elevating the appeal of Ocean Park. They will also provide a new venue for Meetings, Incentives, Conventions and Exhibitions (MICE) event organisers from around the world, which will be easily accessible thanks to the new MTR link."

There's work going on behind the scenes, too, as the park strives to constantly improve the visitor's day out. Free resort-wide Wi-Fi has been rolled out, and a new mobile app. Special promotions are targeted at specific overseas markets with growth potential. Also newly launched, the park's self-developed proprietary PFlow guest management system – winner of a GSM Association Asia Mobile Award – is enhancing how people experience the park.



> "Demand for leisure activities in the region will continue to grow, given the rising middle class in China and the rapidly increasing income levels"

Water World spans indoor and outdoor areas across three storeys. Themes include the reef, the caves and the beach

The Fullerton Hotel @ Ocean Park will help increase hotel room supply in Hong Kong

"PFlow is a custom-designed integrated mobile platform that enables timely collection, analysis and dissemination of guest flow and guest mix information. The data empowers our management team to make calculated decisions that can enhance guest experiences, such as the proactive management of guest flow, operations and manpower," says Li.

Furthermore, Ocean Park's "Big Five" seasonal offerings are updated and enhanced, often featuring new local elements and strategic brand collaborations, to ensure Summer Splash, Halloween Fest, Christmas Sensation, Lunar Lucky Fiesta and Animal Discovery Fest keep people returning year after year.

INTENSIFYING COMPETITION

The region's theme park sector is heating up, particularly with Disney opening in Shanghai last June. For families who want to visit a theme park in the region, the China resort must be at the top of the list.

"Ever-intensifying competition posed by new and existing themed attractions in the region, including Disneyland Shanghai, Chimelong Ocean Kingdom in Zhuhai, and numerous family entertainment facilities in Macau, have channelled away, or even, deterred Mainland tourists from visiting Hong Kong as they can gain easy access to themed entertainment closer to home."

"However, despite the current downturns in economy and the industry, the demand for leisure activities in the region will continue to grow, given the rising number of middle class within Mainland China, and the rapidly increasing income levels."

Li believes the growth of the attractions industry in Asia is helping meet demand for leisure and entertainment and in turn promoting both short and long-haul tourism in the region. Big players like Disney raise standards and increase appetite for large-scale destination attractions.

"The entry of international players encourages theme parks in the region to improve their hardware and software to meet the expectations for high quality, fun and value-for-money guest experiences, heightening the industry's standards."

MANAGING A CRISIS

As Li reflects on a 40-year story, what's the greatest challenge the park has faced?

"I believe that would be around 2003, the time when SARS hit Hong Kong and the region, impacting Hong Kong's economy and the sentiments of locals and overseas visitors, not to mention the park's attendance. That was a big challenge for all members of the park and for me as the finance director at the time."

Li says that the park's persistence and strength in the face of such adversity ▶

WATER WORLD

- **WhiteWater West is working on the 693,000sq ft project, which is twice the size of the original waterpark**
- **the first and only waterfront waterpark in Southeast Asia**
- **designed to seamlessly integrate with its hillside surroundings through a series of terraced platforms and wave pools**
- **27 indoor and outdoor attractions, plus dining and retail outlets**
- **expected to create 2,900 jobs and add HK$842 million to the GDP by 2018**

A Seal Encounter session takes place with a trainer. Guests interact with the animals by feeding and touching them

► helped the business survive as it looked to the future with the launch of the highly ambitious MRP, which broke ground in late 2006 and was completed in July 2012. That year the park became the first Asian winner of the IAAPA Applause award.

ANIMAL LOVERS

Ocean Park's position as a marine and animal attraction should not be forgotten. The company's mission to educate guests about wild animals has always been a central tenet. It became the first zoological park outside North America to be accredited by the Association of Zoos and Aquariums (AZA) – and that accreditation is something the park takes very seriously.

"All zoos and aquariums have a responsibility to ensure the highest standard of welfare for all animals in their care. The park subscribes to the animal welfare ordinances in Hong Kong and works closely with the Agriculture, Fisheries and Conservation Department to ensure that all our exhibits, along with the management practices, are designed with the animals' physical, social and psychological needs in mind."

This has meant that over the years Ocean Park's status has grown. The facility invests in education and scientific research, works on conservation in the wild through Ocean Park Conservation Foundation Hong Kong (OPCFHK) and is now recognised as an international conservation centre. The park shares its expertise in sustainable breeding programmes which focus on genetic diversity and recently became the first Asian facility to be certified by the American Humane Association. Meanwhile the OPCFHK supported 51 conservation projects across nine countries last year.

Onsite, Ocean Park has an approach that aims to facilitate learning through intimate experiences with animals, such as dolphin, penguin and seal encounters. But how does Li react to criticisms about attractions that encourage human-to-animal interaction? For example, TripAdvisor recently announced it would stop selling tickets to attractions that offer direct contact with wild animals. Is this something that could affect the park?

"We understand TripAdvisor's decision would encourage animal facilities to put greater consideration into the responsible designing of educational programmes that involve close encounters with animals in captivity," Li says. "While we agree there are different ways to raise awareness on animal conservation, we strongly believe that the impact of actually seeing and connecting with animals is much more immediate and far-reaching than alternative methods, thereby irreplaceable in inspiring people to make behavioural changes in their daily lives to contribute to protecting these precious animals."

CHANGING WORLD

Li cites some studies by the Alliance of Marine Mammal Parks and Aquariums (AMMPA) that found nine out of 10 people believe children learn more about marine mammals at an aquarium or zoo than in a school classroom or from TV programmes.

"In our beliefs, it is important for accredited facilities, such as Ocean Park, to provide opportunities for guests to experience animals in a respectful, safe and educational environment. Our guests are touched at their hearts and are taught about the need to conserve the animals. The positive effect of our presentations has been validated time and time again through third-party research and in-park guest surveys," Li says, though he concedes he will continue to "observe any changes in the situation".

"Nothing will ever stop us from constantly improving ourselves. We understand that the world is changing quickly and that's the same for the standards in animal welfare nowadays," says the CEO. "Therefore, going forward, we shall continue to keep our animal facilities and management practices up to, or even exceeding, industry standards, in order to offer the best possible care to all animal ambassadors in the park while promoting the important messages of conservation to our guests."

"The key to remaining resilient is we understand our edge and we never cease to amuse our guests. We are determined to keep this up under all circumstances." ●

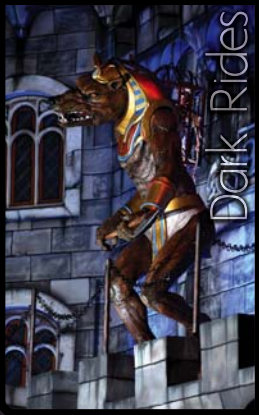
CONSERVATION WORK

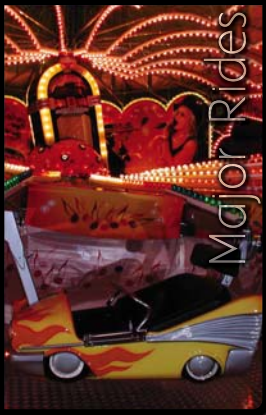
- working with AZA's SAFE (Saving Animals From Extinction) to conserve local species, including yellow seahorses, corals and horseshoe crabs
- collaborating with local universities, government and non-government organisations
- running a multi-year advocacy campaign called Blue Matters, highlighting 10 at-risk species in the region, including the Hong Kong newt, acroporidae coral, green turtle, Indo-Pacific humpback dolphin, scalloped hammerhead shark, giant panda and golden snub-nosed monkey
- staff training to empower park employees to be conservation advocates
- outreach programmes educating over 7,200 students from local schools on conservation matters
- on-site breeding programmes
- OPCFHK sponsorship for 34 conservation and scientific projects, helping giant pandas, Chinese white dolphins, Malayan tigers, Yangtze finless porpoises, Eurasian otters and more
- operating the Cetacean Stranding Response Team

 ©CYBERTREK 2017

BERTAZZON

The Carousel's Company





artwork by factoedizioni

Bertazzon 3B - 31020 Sernaglia (TV) Italy - Ph. (+39) 0438 966 291
www.bertazzon.com - bertazzon@bertazzon.com

OPENING DOORS

It's poised to be an exciting year in the attractions industry. We've gathered together the new projects to look out for in 2017

THE AMERICAS

Epic Waters

Grand Prairie, Texas

Epic Waters will anchor a brand new mixed-use entertainment destination. The waterpark development will include a retractable roof for year-round use, multiple slides, a lazy river, kids zone and rental cabanas.

Dallas-based HKS is the appointed designer for the Texas project

Papalote Children's Museum

Mexico City, Mexico

The Papalote Children's Museum is being re-housed in a forest-inspired building that promotes fun, exploration and discovery. Interactive exhibits encourage children to learn about art, ecology, science, music and human development.

Architect MX_SI says the building is 'a generator for new life and new ideas'

IMAGE: MX_SI

Morgan's Inspiration Island

San Antonio, Texas

Morgan's Wonderland – a theme park which caters specifically to the disabled – is completing a multi-million-dollar expansion that includes the world's first ultra-accessible waterpark.

The park includes raintrees, waterfalls, jets, water cannons and tipping buckets

Waterpark consultants worked with doctors and special needs therapists at the design stage

 ©CYBERTREK 2017

Pandora - The World of Avatar

Orlando, Florida

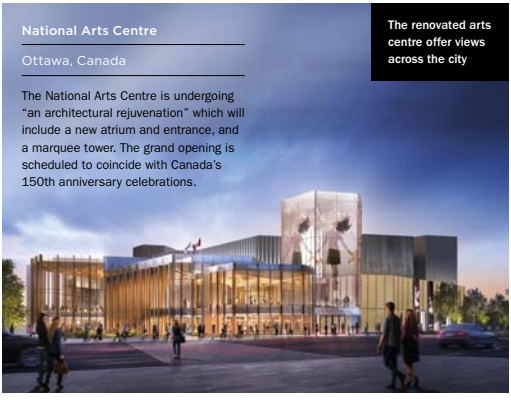
Located within Disney's Animal Kingdom, the highly anticipated Avatar zone is set to include a number of sites unique to the world of the 2009 movie, including floating mountains and bioluminescent rainforests.

Rides include the Na'vi River Journey and Flight of Passage over the world of Pandora

National Arts Centre

Ottawa, Canada

The National Arts Centre is undergoing "an architectural rejuvenation" which will include a new atrium and entrance, and a marquee tower. The grand opening is scheduled to coincide with Canada's 150th anniversary celebrations.



The renovated arts centre offer views across the city

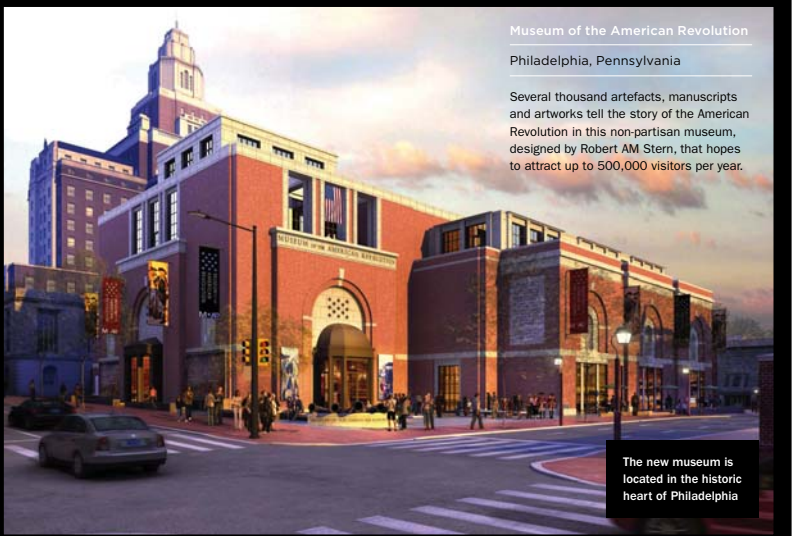
IMAGE: DIAMOND SCHMITT ARCHITECTS

The zone features six different habitats

Africa Rocks

San Diego, California

San Diego Zoo's largest expansion to date, Conrad Prebys Africa Rocks will be populated with dwarf crocodiles, spurred tortoises, baboons, vervet monkeys and lemurs, African leopards and penguins, as well as native African plants. ▶



Museum of the American Revolution

Philadelphia, Pennsylvania

Several thousand artefacts, manuscripts and artworks tell the story of the American Revolution in this non-partisan museum, designed by Robert AM Stern, that hopes to attract up to 500,000 visitors per year.

The new museum is located in the historic heart of Philadelphia

Museo Maya de América

Guatemala City, Guatemala

Museo Maya de América, designed by Swiss architects Harry Gugger Studio, will be home to collections of artefacts, artworks and textiles from the sophisticated Mayan civilisation.

The building centres around a lofty courtyard

ALSO LOOK OUT FOR

- Universal Orlando's new waterpark Volcano Bay launches in May
- The Poarch Band of Creek Indians' Owa theme park and resort in Foley, Alabama is expected to open
- Canada Science and Technology Museum opens in Ottawa, Ontario

 ©CYBERTREK 2017

HUNGRY FOR THRILL?

THE AMC WALKING DEAD®

"BATTLE FOR SURVIVAL"

Mixed-media
interactive DARK RIDE
NOW AVAILABLE

sallycorp.com

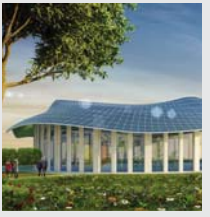
SALLY
The Dark Ride Specialist

THE MIDDLE EAST AND AFRICA

Holy Quran Park

Dubai, UAE

Holy Quran Park is a departure from the region's more western-style tourist attractions. The Islamic garden will have plant species mentioned in the holy book and an air-conditioned tunnel depicting events from the Quran.



Plans include a play area, outside theatre, Umrah corner and cycle path

Zeitz Museum of Contemporary Art

Cape Town, South Africa

Heatherwick Studio is transforming a disused grain silo into a harbour-side culture and leisure space, featuring the modern art museum and a 28-room hotel.

Built in 1921, the 57-metre-tall silo is a major presence on Cape Town's skyline

The park is part of a mall development

Alpine Snow Park

Palm Mall, Muscat, Oman

A next-generation snow and ice amusement park boasts immersive Alpine theming, real-snow snowfall, an ice-skating rink, ice climbing, ropes courses and children's snow play areas.

ALSO LOOK OUT FOR

- KidZania will be opening in Qatar, Doha, and in Johannesburg, South Africa
- Oft-delayed Dubai Safari is expected to launch as well as Dubai Crocodile Park
- Salalah Waterpark is scheduled to open in Oman

Water flows between the outer areas of the museum and the galleries inside

Louvre Abu Dhabi

Abu Dhabi, UAE

The long-awaited sister museum to the Paris Louvre will be be the anchor for the under-development Saadiyat Cultural District, with the Zayed National Museum and Guggenheim Abu Dhabi to follow.

The Jean Nouvel-designed museum has faced a string of setbacks since 2012

IMAGE: ARCHITECT, ATELIERS JEAN NOUVEL

 ©CYBERTREK 2017

Musée Yves Saint Laurent

Marrakech, Morocco

The work of French fashion designer Yves Saint Laurent will be brought to life in his spiritual home of Marrakech. Clothing, accessories and sketches will be among the artefacts on display. A sister YSL museum is also opening in Paris.

Morroccan accessories at the Berber Museum, located in Jardin Marjorelle, bought by Yves Saint Laurent in 1980

EUROPE

Ferrari Land

Salou, Spain

PortaVentura is opening Europe's first Ferrari Land theme park, featuring the continent's tallest rollercoaster at 112m (367.5ft).

PGAV is working with Ferrari to ensure the design meets the brand's criteria

LEGO fans can visit the facility to learn about the company's history and values

LEGO House

Billund, Denmark

Consisting of 21 huge LEGO-style bricks, built on top of one another, the 12,000sqm (129,000sq ft) LEGO House consists of a museum, café and store. It was designed by Bjarke Ingels Group (BIG).

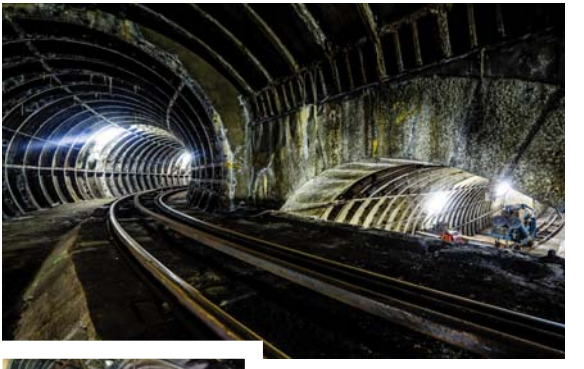
Paying visitors may access four specially designed play zones inside LEGO House

The aerospace museum consists of two refurbished World War I aircraft hangars

Bristol Aerospace Centre

Bristol, UK

The centre will become the permanent home of the last Concorde to take to the skies. The heritage museum and learning centre will be dedicated to the rich aviation history of Bristol.



The Heritage Lottery Fund, Royal Mail and Post Office are funding the new museum

Postal Museum

London, UK

This new heritage attraction will chronicle five centuries of social and communication history across Britain. The exhibition will incorporate varied digital media along with traditional artefacts, telling the story of the people who worked for the postal service.

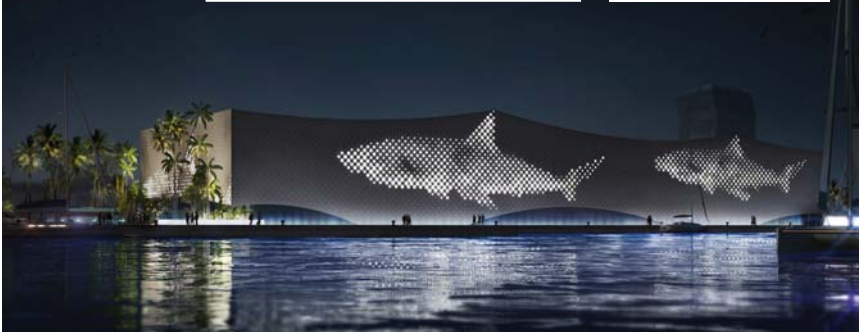
 ©CYBERTREK 2017

Spanish architecture firm VDR Designs masterplanned the development

Poema del Mar

Las Palmas, Gran Canaria

The aquarium – developed by Loro Parque, an attraction on the nearby island of Tenerife – will focus on creatures of the Atlantic and aims to boost tourist activity in the area.



The Sill

Northumberland, UK

A visitor centre and youth hostel by Hadrian's Wall is nearing completion. The eco-friendly building boasts a grass roof and is built from locally-sourced materials.

The Sill could attract more than 100,000 visitors per year

ALSO LOOK OUT FOR

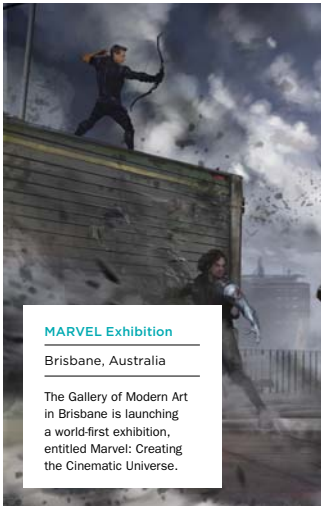
- The Yves Saint Laurent museum opens in Paris, France
- Comics Station is opening at Antwerp rail station, Belgium
- In the UK, the British Music Experience in Liverpool opens in February
- West Midlands Safari park is launching its waterpark
- Aberdeen Art Gallery will make its debut
- In Germany, the Dan Pearlman-designed Panda Enclosure is opening at Berlin Zoo
- BRC's Jameson Distillery is opening in Dublin, Ireland
- Expansion work continues for the V&A Museum, London
- Tate St Ives' renovations will be completed (below)

ASIA & AUSTRALIA

All Blacks Experience

Auckland, New Zealand

At this visitor centre dedicated to New Zealand's all-conquering rugby team, visitors will get an insight into the sport while learning about the passion that drives the All Blacks team – and of course about the Haka pre-game tradition.



MARVEL Exhibition

Brisbane, Australia

The Gallery of Modern Art in Brisbane is launching a world-first exhibition, entitled Marvel: Creating the Cinematic Universe.

The resort is expected to be at least 25 acres

20th Century Fox World

Genting, Malaysia

Twentieth Century Fox is working with developer Genting Malaysia. IPs will include Ice Age, Rio, Predator and Night at the Museum. Experiences will include thrill rides, dark rides and water rides.

Expo 2017 Future Energy

Astana, Kazakhstan

In recognition of the global energy crisis, the focus of the three-month International Recognised Exposition (one that occurs between Registered Expositions) is Future Energy – a scrutiny of innovative yet practical energy solutions and their global impact.

More than 100 countries are expected to participate in the Kazakhstan expo

The expo flies the flag for green and sustainable energy

 ©CYBERTREK 2017

Original artwork, props, costumes and comic book pages will be on display

Mughal Museum

Agra, India

Designed by David Chipperfield, the museum, near the Taj Mahal, is dedicated to the history and culture of Northern India's Mughal dynasty.

The museum is part of a larger tourism scheme

d'Arenberg Cube

Fleurieu Peninsula, Australia

South Australian winemaker d'Arenberg is building a visitor centre mimicking a Rubik's Cube. ADS Architects designed the five-storey d'Arenberg Cube, which is under construction in the popular McLaren Vale wine region.

A landmark tourist destination for the region, the attraction has a wine tasting room and restaurant

The design is by Peddle Thorp Architects

Cairns Aquarium

Cairns, Australia

The aquarium will be home to more than 5,000 creatures endemic to the Great Barrier Reef. Its design is inspired by the movement of the tectonic plates that created the reef.

ALSO LOOK OUT FOR

- Movie Animation Park Studios (MAPS) is on the verge of opening in Perak, Malaysia
- China's new Maritime Museum is opening in Tianjin
- Merlin will open a Madame Tussauds in New Delhi, India and a LEGOLAND in Nagoya, Japan
- ACTVE in Queensland, Australia, is set to open its waterpark
- MACAN art gallery is expected to open in Jakarta, Indonesia

Alice Davis, managing editor, Attractions Management

A PLAN FOR OMAN

Oman's tourism strategy is already seeing results, with new hotels, mixed-use developments and attractions planned. Can it boost its visitor numbers from 2.5 million to 5 million by 2040?

Her Excellency Maitha Al Mahrouqi is under secretary of Oman's Ministry of Tourism

Its UAE neighbour has been getting all the attention lately, but Oman has a plan to change that. If the nation can harness growing interest in the Middle East as a tourist destination and raise its profile, it could be on to a winner. We spoke to Her Excellency Maitha Al Mahrouqi, under secretary of the Ministry of Tourism for Oman, to find out more.

What is the strategy for boosting tourism to Oman?

The Oman Ministry of Tourism's 2040 Tourism Strategy is based on a cluster approach that creates a series of unique tourism experiences in different areas of Oman, reflecting local culture and heritage. The Ministry is trying to encourage visitors to spend some time in Muscat before escaping to the cool of the mountains, having a true Bedouin experience in the desert or travelling down to Salalah in the south of the Sultanate, which has a different climate entirely.

The Ministry is focusing on pushing Salalah's experiential offering. Salalah is becoming an increasingly popular destination and the opening of the brand new airport in Salalah is playing an important role in tourism development in this region. The multi-product offering, including a pristine coastline, a

 ©CYBERTREK 2017

> SPECIAL-INTEREST GROUPS CONSTITUTE ONE OF THE FASTEST-GROWING SEGMENTS OF WORLD TOURISM, AND OMAN PERFECTLY CATERS FOR THAT CATEGORY

Increased investment in hospitality is paving the way for a surge in tourism, with openings like the luxury Anantara hotel in Jebel Akhdar; (right) tourists enjoy browsing Oman's traditional souqs

picturesque mountain chain, and the vast expanse of the desert presents a variety of special and unusual experiences.

Meanwhile, tourism infrastructure across Oman is being rapidly enhanced, with the planned opening in the near future of the new extended Muscat International Airport. Furthermore, several five-star resorts opened in 2016, including the Anantara in Jebel Akhdar and Salalah. Additionally, a refurbished Sheraton re-opened in Muscat and construction is underway on Oman's first W Hotel.

The Tourism Strategy has identified digital marketing and promotion as the most effective platforms to promote Oman as a preferred and top-of-mind tourism destination. As such, efforts are being channelled into those particular vehicles of communication in order to boost tourism in the destination.

The priority is to ensure that the experiential tourism offering in Oman continues to develop sensitively, protecting both the physical and cultural environment, and that the destination retains its identity and heritage, while showcasing the country and people to an international audience.

What is the tourist profile?

Oman caters for holidaymakers looking for a truly authentic, quality Arabian experience. Oman is witnessing an increase in travel from those consumers with an experiential travel focus. Visitors are interested in history and culture and activities such as sailing, cycling, trekking, golf, diving, spa and wellness and other special interest groups. It is predicted that these markets will continue to grow as Oman's product offering develops. Special-interest groups constitute one of the fastest-growing segments of world tourism, and Oman perfectly caters for that category.

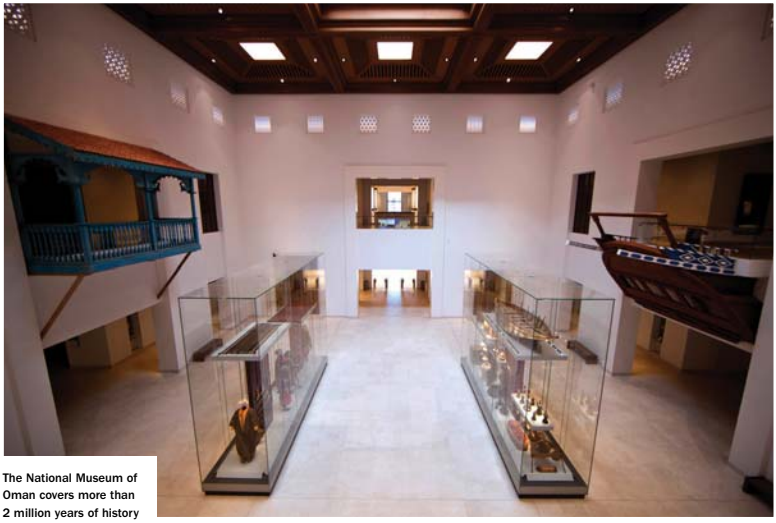
How many tourists do you hope to attract by 2040 and how will you reach these predictions?

By 2040, Oman aims to attract more than five million international visitors, in addition to same-day visitors and domestic tourists, making tourism one of the most significant income generators in the Sultanate, at just over six per cent of annual GDP.

These figures will be achieved by promoting Oman as a year-round destination for tourists – with water sports, mountain escapades and luxury hotels included in a new summer campaign designed for visitors from the UAE and Saudi Arabia. Muscat and Ras Al Hadd near Sur, Al Jabal Al Akhdar and Jabal Shams are among the varied destinations offered in the packages. Oman will also be targeting business travellers and promoting MICE tourism with the opening of Oman Convention and Exhibition Centre in Muscat at the end of 2016.

Is the strategy shaped by upcoming events in the region, such as Dubai's Expo and the World Cup in Qatar?

Oman is certainly in a position to capitalise on events taking place in the region by offering tourists a seamless and hassle free multi-centre holiday. Over 2,000 new hotel rooms opened in 2016 alone and Oman will have the capacity to welcome tourists from Dubai and Qatar following the Expo and World Cup. ▶



The National Museum of Oman covers more than 2 million years of history

We've seen the attractions industry developing rapidly in Dubai. What role does the attractions industry play in Oman tourism?

Currently, Oman is known for its UNESCO-recognised heritage sites, beaches, mountains, old markets and the Royal Opera House in Muscat. Over the next few years, as more resorts open and tourism increases, it is predicted that there will be more developments in the attractions industry in Oman. Plans are underway to build a theme park complex in Barka in northern Oman [see below].

What are Oman's flagship attractions?

Currently, a lot of tourists are interested in boat trips and turtle watching along the east coast around the city of Sur, hiking and camping in Al Jabal Al Akhdar and diving in Masira Island. Muscat is visited more for the culture and heritage of Oman, with the Royal Opera House and the National Museum as some of the main attractions. Jebel Shams and Al Jabal Al Akhdar are popular for mountain retreats.

What attractions have opened lately?

The National Museum opened its doors to the public last year, showcasing the cultural heritage of the Sultanate from prehistoric times to modern day.

What attractions are planned?

Plans are underway to build a 150 hectare (370 acre) theme park complex in Barka

FAST FACTS

- **2.5 million tourists visited Oman in 2015, 15 per cent more than the previous year**
- **Oman has four Unesco World Heritage Sites, including Falaj Daris**
- **The number of licensed hotels rose from 297 in 2014 to 318 hotels in 2015, an increase of 7 per cent**
- **GCC visitors form 46 per cent of total visitors to Oman, followed by Asians (23 per cent) and Europeans (19 per cent)**
- **Tourism could create over 500,000 jobs and account for up to 10 per cent of GDP by 2040**

SOURCE: ITHRAA TOURISM BRIEFING

Sultan Qaboos Waterfront will be a draw for tourists to Oman; Attractions, like this snow park in Muscat, are part of a surge in development

> OVER THE NEXT FEW YEARS, AS MORE RESORTS OPEN AND TOURISM INCREASES, THERE WILL BE MORE DEVELOPMENTS IN THE ATTRACTIONS INDUSTRY

Watching the camel races is a popular tourist activity in Oman

in northern Oman. The multi-cluster development is being built by the Muscat National Development Company and plans include an integrated theme park, wildlife attraction, waterpark, equestrian centre and edutainment centre. The complex will also feature multiple hotels, a residential zone and retail areas.

The Oman Tourism Development Company launched the $1.3bn (£1bn, €1.2bn) Mina Sultan Qaboos Waterfront project aimed at transforming Port Sultan Qaboos into a major tourism based mixed-use waterfront destination. As per its initial launch in 2015, the project is planned in four phases. The first phase consists of a fisherman's wharf, fish souq, a five-star marina hotel, a four-star family hotel, residential, destination shopping, restaurants, cafes, boutiques, entertainment and cultural facilities, as well as a superyacht and leisure boat marina. It will be completed by 2020.

An agreement has been signed for the construction of a new waterpark development in Salalah. The first phase of the waterpark is currently under construction. The project will include six types of water rides, a restaurant, a coffee shop, parking and green areas.

Majarat Oman, the Sultanate's biggest indoor theme park is being built in the premises of the Al Sawadi Beach Resort and is planning a soft opening in 2017.

PHOTO: MAKE DUSTLAB

The tourist board is promoting Omani traditions and culture to draw visitors

The theme park is a futuristic, alien-themed indoor attraction, which offers a classic mix of all entertainment elements for the family.

The Sultanate's first snow park, part of the Palm Mall Muscat project, will be a new-generation Alpine winter-themed real snow and ice amusement park. Spread over 5,400sqm (58,00sq ft), the snow park and the mall are expected to be ready by the third quarter of 2017.

Does the government invest in or drive the attractions industry in other ways?

Ithraa, the Public Authority for Investment Promotion and Export Development, has recently published five Briefings papers, *Economic Briefings from Oman*, that are designed to connect the world with contemporary Oman and its dynamic business community. Each of the Briefings provides a snapshot of one sector in the Sultanate and the ambitious projects and innovative business ideas currently driving that space. Informative, realistic and easily digestible, the Briefings are intended to inspire business owners, investors and partners at large to consider the significant opportunities these sectors present.

What challenges do you see to tourism to the region, and how could they be overcome?

Some forecasts suggest that water availability could halve across the region within the next 50 years – and these may not fully account for anticipated tourism growth. In anticipation of this, Oman has joined the Ramsar Convention Wetlands a year ago to ensure that areas attracting important birdlife, particularly in the south of the country, are protected. ●

VOLCANIC ACTIVITY

Universal Studios Orlando is about to open what's perhaps the most talked about waterpark project in history – Volcano Bay. It's set to be explosive

Alice Davis, managing editor, Attractions Management

Universal's "next-generation" waterpark, Volcano Bay, promises to redefine the waterpark experience, with everything from the virtual queue line to the park's immersive theming inspired by the Pacific isles.

Featuring 18 attractions across four themed areas, the 28-acre (11-hectare) park will be anchored by a 200ft-high (61-metre) volcano structure. Universal says the waterpark, which opens on 25 May, will put the focus "entirely on having fun and spending time together". Volcano Bay is being built near the Cabana Bay Beach Resort, with guests able to visit the waterpark as a single experience or as part of a three-gate ticket in conjunction with the operator's other two Orlando theme parks, Universal Studios and Islands of Adventure.

Dale Mason, Universal Creative

Volcano Bay replaces Universal's Wet 'n Wild Orlando, one of the first waterparks in the US, which closed in 2016. Universal is yet to reveal what it is doing with the site on International Drive, although there have been reports that a hotel will be built.

Dale Mason is vice president and executive art director for Universal Creative,

 ©CYBERTREK 2017

Multi-person raft ride Honu (this picture); Krakatau Aqua Coaster (top right); Ohno drop slide, that launches guests above the water

Universal Orlando's Volcano Bay waterpark is centred around the 200-foot-tall erupting Krakatau

where he develops experiences for guests worldwide. He tells *Attractions Management* about this season's biggest opening.

Universal says it wants to redefine the waterpark experience. How is Volcano Bay doing this?

Volcano Bay will be filled with thrills and relaxation where we take waterpark theming to the next level. Spanning almost 30 acres, the waterpark features a variety of experiences that range from daring to serene. And the best part – guests won't have to wait in long lines to enjoy it.

WHAT IS TAPUTAPU?

Guests will be able to book ride slots and avoid queuing in the waterpark thanks to Universal's TapuTapu virtual queuing technology. Each visitor will be issued with a wristband device that enables them to hold their place in a line, unlock "surprises" around the location and trigger special effects like water cannon and illuminations.

Volcano Bay has been designed by the Universal Creative team and will feature the same level of detail, immersion and adventure found in Universal's other attractions and theme parks.

What can guests expect?

The park combines exhilarating experiences with hassle-free convenience so families can get the most out of their vacation together. The state-of-the-art Krakatau Aqua Coaster will take guests on an exciting voyage unlike any other. The all-new TapuTapu wearable technology ▶

will vastly improve the way guests experience waterparks. Fortunately, they won't have to stand in long lines or wrestle with tubes before enjoying the unique attractions around the park.

Volcano Bay guests will be able to enjoy a variety of experiences – from winding rivers and private, two-storey cabanas, to family raft rides and twisting body slides that launch them above the water.

How did you research the project?

To help shape our vision, our team travelled around the world visiting waterparks and tropical resorts. We went to Bali in Indonesia, the Middle East, Europe and all across the United States. And from there, we started designing what we wanted Volcano Bay to be.

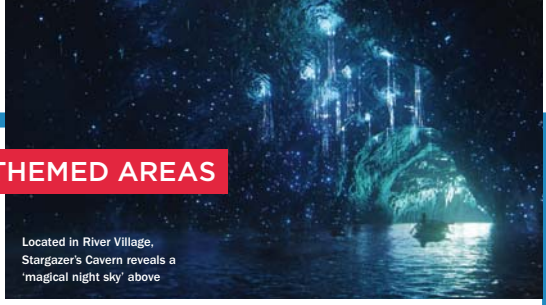
Can you explain the inspiration and concept for theming at Volcano Bay?

Volcano Bay is made up of four highly themed areas, all with Polynesian influences ranging from Easter Island and Hawaii to New Zealand and more.

Can you tell us about the relevance of Krakatau? Why this centrepiece? And what will it be like?

The 200-foot volcano, Krakatau, will lie at the heart of the park, inviting guests to venture through its hidden caverns and cascading waterfalls. And by night, the volcano will illuminate with blazing lava. We're excited for all guests to experience the centrepiece of the water theme park.

Kopiko Wai Winding River, which passes around the volcano and through its hidden caves (above); an overview of the upcoming water theme park (below)



Located in River Village, Stargazer's Cavern reveals a 'magical night sky' above

THE FOUR THEMED AREAS

Krakatau

Inside the volcano, guests can board specially-designed canoes to ride the Krakatau water coaster. The aqua coaster uses leading water ride technology to propel them uphill as well as down. There are also three waterslides. The Ko'okiri Body Plunge plummets 125-feet through the centre of the volcano and tunnels through a swimming pool of guests. Kala and Ta Nui Serpentine offers a dual free fall while guests can race on mats on Punga Racers.

Wave Village

Situated at the base of the towering volcano, Wave Village features a multi-directional wave pool, sandy beach and a selection of cabanas. There's also a calmer pool area, which does however offer exciting views of riders speeding through the Ko'okiri Body Plunge.

River Village

A river meanders through the family-friendly River Village. Guests float into the volcano's hidden caves where there are special light and water effects to discover. Tot Tiki Reef is a toddler play area with Maori fountains and a mini volcano, while Runamukka Reef is an aquaplay area for older kids.

Rainforest Village

There are thrills aplenty in this zone, including Maku, a three-saucer ride; Puihi, a multi-passenger raft ride with a zero-gravity drop; Ohyah and Ohno, a duo of drop slides that launches guests into the air as it spits them out; and Taniwha, four Easter Island-inspired tube slides. ●

A NEW HOME

London's Design Museum has moved to a renovated building in affluent and leafy Kensington. Kim Megson finds out more about an unusual development and the attraction at its heart

The Design Museum opened to the public in its new £85m ($107m, €99m) home on Kensington High Street in London in November, the result of an innovative architectural collaboration.

The museum is located inside the city's former Commonwealth Institute Building, a Grade II* listed structure that had sat dormant for years. The site was being developed to include three new apartment blocks, so back in 2008, the Design Museum – which had been housed near Tower Bridge on the Thames since it was founded by Sir Terence Conran in 1989 – expressed an interest in occupying the revamped 1950s building.

The attraction has tripled the floor space it had at its former riverside home. And thanks to its distinctive copper roof and help from architects OMA and interior designer John Pawson, the Design Museum is sure to stop visitors in their tracks.

New facilities include two major temporary gallery spaces, a free permanent collection display, a restaurant overlooking Holland Park, an auditorium, studios, a library, an archive and learning facilities.

We spoke to two key individuals involved in realising the project, and paid a visit to the museum ourselves.

PHOTO: GARETH GARDNER

"The point of this move is that we're growing up without growing old. I was hired to grow the museum – to take us from the edge of the conversation to the centre stage"

Deyan Sudjic, director, Design Museum

What impact will the move have on the Design Museum?

We're still exploring what the move actually means for the Design Museum. We're just realising the scale of the transformation from Shad Thames to the new facility. With that has come the sense of excitement, and of understanding just how complicated a building is.

We're expecting an audience of around 650,000 a year, as opposed to the 250,000 we had in Shad Thames. We've got a building with three times the space, we've increased our budget so we'll be operating on about £11m ($14m, €13m) a year, as opposed to the £5m it ran on before. It's growing on all fronts.

What are your goals for the new museum?

The point of this move is that we're growing up without growing old. I was hired with a brief to grow the museum – to take us from the edge of the conversation to the centre stage. We've built a theatre with multiple stages, and now our task is to fill them with a great repertoire. Justin McGuirk, our curator, has worked hard to achieve that.

The location will bring life back to Kensington High Street, which was once a vibrant and fashionable neighbourhood. Tate Modern turned contemporary art from something that was seen by the tabloids as a joke to something in the mainstream conversation. We have a chance to do that for contemporary architecture and design.

What's your favourite part of the new building?

I knew the building as a child, so it's great to see it brought back to life. I think interior designer John Pawson has created a new building inside the old one, which frames the original and almost turns it into an exhibit. I love the way he has made it into a better building than it was before.

What will be the philosophy of the museum moving forward?

We see design as borderless. Opening a museum is a very optimistic thing. We are open to the world and design is a way to understand the world. I've always thought design is too important just to leave to designers, and I think we're trying to demonstrate that. I'm sure it's going to succeed. I can feel it in the building.

 ©CYBERTREK 2017

PHOTO: GARETH GARDNER

PHOTO: LUKE HAYES

(Clockwise from left) The Design Museum celebrates industrial, artistic and technology innovations; the large atrium; a view of the roof; retail space on the ground floor

"It was an arranged marriage between housing and a museum; that was the only way the whole project was going to get planning approval"

Reinier de Graaf, partner, OMA

How did you become involved in the project?

In March 2008 we won a competition which had a very interesting brief – to bring back to life a site that was dead. The Commonwealth Institute was in a bad state and it was a huge burden for the council to maintain it.

It was built as a temporary structure, but now it was a Grade II* listed site it had weirdly created a permanent state for something relatively provisional. The exhibition hall had a service wing that even the original designers referred to as a train crash. The grounds of the site were a registered landscape because Dame Sylvia Crowe designed a garden, which was never executed. It was a bizarre situation with a modern ruin on a derelict parking lot, and both were listed. The only thing to do was refurbish the whole thing again.

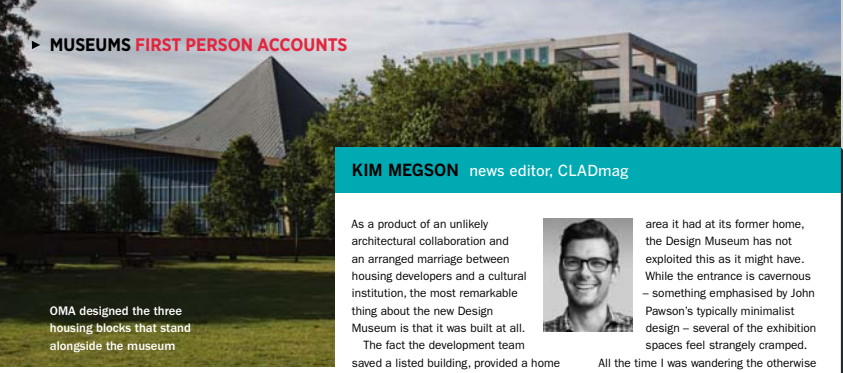
The project was supported by a housing element

How did you come up with your concept?

We decided some parts are more listed than others. We took away the service wing, kept the main exhibition hall – really the prize of the architecture because of the parabolic roof – and decided a derelict car park deserved a re-landscape. Our concept was to have Holland Park engulf the whole terrain, and in the space where the service wing was, we added three cube-shaped residential blocks.

What part are you most proud of?

In an age where there are precious few public subsidies, we managed to save a listed building, open a major cultural institution and create a community that's not gated and is a public part of a public park. That's an impressive achievement in the context of a public sector which on the whole is so passive and has relegated all the initiative to the market. It was an arranged marriage between housing and a museum; that was the only way the whole project was going to get planning approval. ▶



OMA designed the three housing blocks that stand alongside the museum

PHOTO: LUKE HAYES

KIM MEGSON news editor, CLADmag

As a product of an unlikely architectural collaboration and an arranged marriage between housing developers and a cultural institution, the most remarkable thing about the new Design Museum is that it was built at all.

The fact the development team saved a listed building, provided a home for a major museum and created a new residential zone in a public park is quite a feat. Architect OMA undoubtedly achieved its goal to "bring back to life a site that was dead" – 100,000 people visited the museum in the first three weeks.

The most impressive part of the building remains its iconic roof, which has been expertly preserved to form a dominant presence from both inside and out. It's an apt centrepiece for a museum focused on design, so don't forget to look up.

Less well thought out is the use of space. Despite enjoying triple the surface area it had at its former home, the Design Museum has not exploited this as it might have. While the entrance is cavernous – something emphasised by John Pawson's typically minimalist design – several of the exhibition spaces feel strangely cramped. All the time I was wandering the otherwise excellent permanent exhibition on the top floor I was conscious of being in people's way. As a result I didn't linger long.

Of the temporary exhibitions, by far the better is the Beazley Designs of the Year, a fascinating exploration of innovative new designs, from David Bowie's last album cover to a teacup designed for an astronaut. Where this is inventive, fun and thoughtful, I found the other exhibition, Fear and Love, to be dull, pretentious and impenetrable. But then again, design is subjective – and the 2017 programme promises better exhibitions ahead.

TOM ANSTEY news editor, Attractions Management

The Design Museum by name should be a fantastic piece of architecture and that's not in question when you enter the grand hall stretching from ground floor to top ceiling. But in this case it might be too much style and not enough substance, as the museum exhibits themselves occupy just a fraction of the mammoth structure.

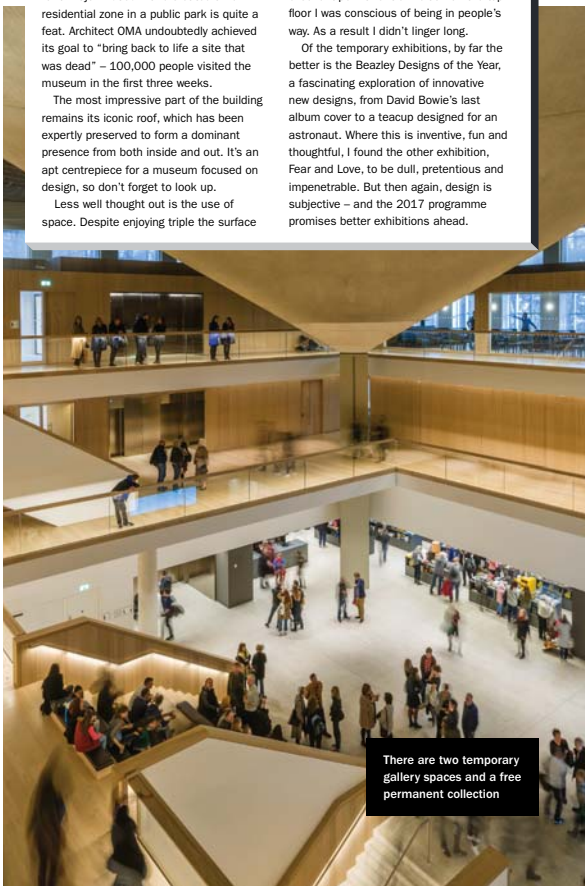
No one could deny the building's interior is impressive. If this were an opera house or theatre I'd be very impressed. But it feels like the museum itself is the main exhibit, rather than the objects it houses, which are put to one side or relegated to the basement.

After ascending to the top storey, you find the corner of the building dedicated to design. These exhibitions are great, very interesting, very eye-catching and detailing the design of many everyday objects or relics of years gone by. But it's just a small portion.

Two paid-for exhibitions add some substance to this – its current ones being Fear and Love: Reactions to a Complex World and Beazley Designs of the Year.

One was worth the money, with Beazley Designs of the Year highlighting a number of design aspects in a large white space in the museum's basement. Fear and Love, however, was a convoluted, confusing ramble that frankly isn't worth the £14 ticket price.

It's a mixed bag when it comes to the Design Museum. There's some great content and that's worth spending time contemplating, but there's also the feeling that an architect went a little trigger-happy when they heard the words "design museum". Certainly visit and enjoy, but don't expect it to take the whole day. ▸



There are two temporary gallery spaces and a free permanent collection

PHOTO: GARETH GARDNER

FROM AUDIO-VISUAL SYSTEM INTEGRATION AND EFFECTS TECHNOLOGY TO 4D THEATER SOLUTIONS - WE ARE YOUR AV SPECIALIST FOR HIGH-QUALITY MEDIA-BASED ATTRACTIONS.

> 4D THEATERS / WATERPLEXX 5D
> HYBRID DOME THEATERS
> CIRCUMOTION THEATERS™
> FLYING THEATERS
> SUSPENDED THEATERS™
> INVERTED POWERED COASTERS
> DARK RIDES
> IMMERSIVE TRAM RIDES
> 2D AND 3D DOMES
> TUNNELS / VIRTUAL AQUARIUMS
> AND MANY MORE ...

CURIOUS WHAT'S NEXT?
CONTACT US!

+43 7242 69269-0 | info@kraftwerk.at

www.kraftwerk.at

CURRENT EXHIBITIONS

The museum is currently hosting three exhibitions in its new home

The Beazley Design of the Year

Comprising over 70 nominations, the exhibition celebrates the best designs from around the world in the last 12 months across six categories: architecture, digital, fashion, graphics, product and transport. Designs include a drinkable book, a flat-pack refugee shelter, a robot surgeon and the last David Bowie album cover.

Design, Maker, User

For the first time in the museum's history, a wide range of its collection is accessible as a free, permanent exhibition. Almost 1,000 items of 20th and 21st century design items on show, including a Bible, a Coca-Cola can, a £5 banknote, a pair of rubber gloves, a plastic garden chair, the London 2012 Olympic Torch and an AK-47 assault rifle.

ALL PHOTOS: LUKE HAYES

Fear and Love: Reactions to a Complex World

Eleven newly commissioned installations by innovative and thought-provoking designers and architects explore a spectrum of issues that define our time, "including networked sexuality, sentient robots, slow fashion and settled nomads." Fashion designer Hussein Chalayan, architect Neri Oxman and OMA are among the contributors.

 ©CYBERTREK 2017

FUTURE EXHIBITIONS

The following exhibitions, explained here by the Design Museum, will take place in 2017

California

24 MAY 2017 – 15 OCTOBER 2017

While California's mid-century modernism is well documented, this is the first exhibition to examine the state's current global reach. Picking up the story in the 1960s, the exhibition charts the journey from the counterculture to Silicon Valley's tech culture, revealing how this design and tech culture "made us all Californians".

Imagine Moscow: Architecture, Propaganda, Revolution

15 MARCH – 3 JUNE 2017

Marking the centenary of the Russian Revolution, this exhibition explores Moscow as it was imagined by a bold new generation of architects and designers in the 1920s and early 1930s. Large-scale architectural drawings are supported by artwork, propaganda and publications from the period.

Hella Jongerius: Breathing Colour

28 JUNE – 24 SEPTEMBER 2017

We see the world in colour but rarely do we appreciate how colour shapes what we see. Drawing on years of research, designer Hella Jongerius presents Breathing Colour; an installation-based exhibition that takes a deeper look at the way colour behaves, exploring shapes, materials, shadows and reflections.

FASHIONABLY LATES

Museums and galleries are entering a new era of bold and provocative programming. Rosie Eagleton, events producer at Museums Sheffield, considers how cultural venues are repositioning themselves in order to attract emerging adult audiences

As the funding landscape for many cultural institutions looks less and less healthy, pressures on museum services to grow audiences, increase income and cultivate visitor giving have increased.

Many museums and galleries are seeking to redefine themselves as social venues in order to appeal to the upwardly mobile "emerging adult" audience. This new audience of tech-savvy, identity-seeking adults is shaping the future of the cultural sector and, in the age of digital competition and experiential desires, museums and galleries must respond and define their offer accordingly.

The sustainability and financial resilience of arts services may rely on tapping into this audience. Programming plays a central role in delivering these essential outcomes – event programmes can be profitable, widen participation and help to shore up our financial future.

Rosie Eagleton studied the success of lates events at museums in the US

Emerging adult audiences demand varied, inspiring and interactive programming. Museums cannot remain purely vaults of knowledge: they need to live, breathe and be part of the communities they serve. Although exhibitions and collections remain at the heart of the cultural offer, our spaces must emerge as inviting hubs of learning and community if they are to be relevant to the next generation.

Make, do and mingle

Cultural services are increasingly becoming "department stores" of culture. Audiences expect a menu of opportunities to engage with, from exhibitions and collections through to digital, social and online, events, networking, external community engagement, education and retail.

The often elusive emerging adult audience is typically aged 18 to 34, dynamic, often going through a period of change (jobs, romantic partners, relocation), with upward earning opportunity, few responsibilities and, critically, no children. These experience seekers are intentionally impressionable and looking to define their place in the world. The connections they make during these culturally formative years may well develop into lifelong relationships with the institutions they choose to champion.

The most successful institutions are always looking to the future – developing a sustainable programme of activity,

Craft Jam Live Lates at the Millennium Gallery in Sheffield features workshops, demonstrations, live music – and a bar

 ©CYBERTREK 2017

Regular highlights of Science Museum Lates include a silent disco and a pub quiz; (below) Late Shift at the National Portrait Gallery, also in London

Working with emerging adults allows us to understand who our community influencers are, opening up access to the pressing issues in the wider community

cultivating donors and growing a culture of openness and invitation. Though there are myriad routes to engagement, science centres, art galleries and museums around the world are turning more frequently to evening programming to offer their emerging adults the opportunity to visit their venues out of hours for something more "grown up" – an opportunity to make, do and mingle.

Understand influencers

Museum Lates are on the rise in the UK, with Late Shift at London's National Portrait Gallery and Science Museum Lates leading the pack. Museums Sheffield's Live Lates are also developing a great reputation as an alternative Friday night out. Evening programmes offer an opportunity to visit the museum out of hours, a more practical and attractive timeframe for our emerging adult visitors who work during the day.

As a museum events and engagement professional, I've been developing a programme of Museum Lates over the past three years. From art gallery-based burlesque performances to ancient Egyptian "After Life" parties (complete with silent disco), evening events are just one way in which cultural organisations respond to the demands of new audiences.

Out of hours programming offers many benefits for both institution and audience. The institution can benefit from new, more diverse audiences, become more visibly visitor-facing as an organisation and explore more dynamic and reactive programming. Financially, events programmes can generate critical income and help foster a culture of giving in its visitors, which may translate into lifelong donors and advocates in the future.

Working alongside emerging adults allows us to understand who our community influencers are, which in turn opens up access to the pressing issues in the wider community and increases understanding of our audiences. The institution becomes a hub for access, learning, networking and community.

For the visitor, we offer dynamic, challenging and unique experiences in unusual venues. Events offer informal learning opportunities which can boost self-confidence and interpersonal skills, supporting attitudinal shifts arising from exploring difficult ideas and deeper social issues. Evening programming also offers social opportunities – meeting like-minded people, ownership of a shared civic space ►

PHOTOS: GAYLE LARDIZ EXPLORATORIUM

Exploratorium's Outdoor Gallery, San Fransisco, California; (right) visitors play with the Turntable exhibit during an After Dark event

and a sense of being part of something bigger. Offering adult-only events gives implicit permission to the audience to "play", an opportunity to remove inhibitions and engage more deeply with collections.

Embrace fandom

So with so many benefits and the opportunity to genuinely keep our finger on the pulse of current trends and social issues, what prevents organisations from jumping on the Lates bandwagon? For institutions, barriers come in the form of cost, risk and buy in. Often there is a fear of not knowing where to start, or a lack of staff or resources to be able to deliver. For audiences, barriers are less tangible; perceptions of museums services as "not for me" or elitist, lack of relevance or resonance with their day-to-day lives or simply too much competition.

How to get started? The choices you make about what's on offer at your late event are crucial to its success. Let your audience drive the programming. Look to social media to find things that are relevant and resonate with the emerging adult audience; sometimes the most innovative, edgy or polarising topics will have the best outcomes. Don't be afraid to jump on the current trends, embrace fandom or let partners contribute to the content. Evening programmes work best when they are themed. Look to exhibitions, pop culture or niche fandom for inspiration. Bringing different disciplines together will be more dynamic for visitors, so look at your theme from different approaches.

I visited Exploratorium in San Francisco, California, during a Thursday night adult-only After Dark events. The place was buzzing with groups, couples and singles anticipating an evening of fun, learning, eating and playing with the museum's vast array of interactive science experiments.

Be authentic

After Dark is specifically targeted at casual visitors and emerging adults. The singular theme of the event – the week I went, the theme was Citrus – is explored through talks, activities and staff presentations and grounded in material and collections that are already on site. Cocktail bars are set up around the building and visitors are free to engage with any of the activities.

After Dark events average 2,500 visitors per month and the flagship events often sell out. I spoke to Melissa Alexander, director of public programming at the Exploratorium to find out why the After Dark sessions were so popular amongst the emerging adult demographic.

"These events are, and should be, all about the audience development and growing young learners into lifelong learners. A success is if someone goes home and reads something or Googles something," Alexander says.

The events do turn a profit, though making money isn't the principal goal of the series. Alexander stresses how important it is for an organisation to "be authentic to itself and give the audience a safe space to explore the difficult ideas on offer."

The Exploratorium is an interactive, scientific playground. Evening events offer a level of exclusivity, a chance to explore, challenge your friends, laugh and learn through play. It offers the audience permissions that they may not feel during normal gallery opening hours when children take priority on the interactives and self-consciousness may reign.

"Our goal from these events is to develop self-efficacy, identity and interest and encourage lifelong learning," says Josh Gutwill, director of visitor research and evaluation. "We want to empower people to make sense of the world themselves." And what better way to learn than through play?

Explore the zeitgeist

Other organisations move away from evening activity grounded purely in its collections or exhibitions into the world of niche fandom and popular culture. It's a polarising topic. Thought of by some as "jumping on a bandwagon" and moving away from the core mission statement of the organisation, for others "zeitgeist" events or appealing to "niche fandom" form core site programming.

"You don't have to just be a museum," says Heidi Reitmaier of the Museum of Contemporary Art Chicago in Chicago, Illinois. "We can position ourselves as a ►

Sometimes the most innovative, edgy or polarising topics have the best outcomes. Don't be afraid to jump on current trends or look to exhibitions, pop culture or niche fandom for inspiration

PHOTOS: NATHAN KEAY, © MCA CHICAGO

Prime Time: Ascend at the Museum of Contemporary Art in Chicago, Illinois

cultural institution which discusses the zeitgeist, current trends and issues."

Through furthering the notion of permission to play and exploring cross-disciplinary themes, institutions around the world – notably the Museum of Pop Culture (MoPOP) in Seattle, Washington, the Asian Art Museum in San Francisco, California, and MCA Chicago – explore pop culture and current music trends, geek chic and mash-ups to engage their emerging adult audiences.

Marc Mayer, senior educator of contemporary art at the Asian Art Museum believes it's all about leveraging modes of expression that are happening anyway: "It's not filling a gap; it is of its time therefore relevant and necessary."

MoPOP has an impressive collection of music, film, science fiction and fantasy memorabilia. From the Myth and Magic Fair to Dr Who's 50th anniversary celebrations, the organisation attracts up to 3,000 visitors with its daytime programming. More interesting successes show an understanding of the emerging adult audience – the Fashionably Undead Prom Nightmare featured a Buffy the Vampire Slayer-themed murder mystery, appealing to the children of the 90s, while the Sound Off! Battle of the Bands competition taps into the musical vein of Seattle and is the flagship event.

The Asian Art Museum had considerable success programming their China's Terracotta Warriors late-night launch event, holding an old-school mash-up party inspired by the China Terracotta Warriors and cult 70s movie, *The Warriors*. "Think greasy. Sweaty. Subterranean. Gritty. Neighbourhood mascots. Michael Jackson. You get the drift," Meyer says.

MoPOP's Fashionably Undead Prom Nightmare featured a Buffy the Vampire Slayer-themed murder mystery, appealing to the children of the 90s

Find partners

Whatever the theme and inspiration behind evening programming, partnerships offer opportunities to experiment with your spaces. Working with nontraditional partners can open the doors to innovation; a museum space can be enlivened and enriched whilst still remaining true to its position as a cultural institution. Partnerships can widen participation, build relationships with hard-to-reach groups and activate the development of micro-communities within your existing audience.

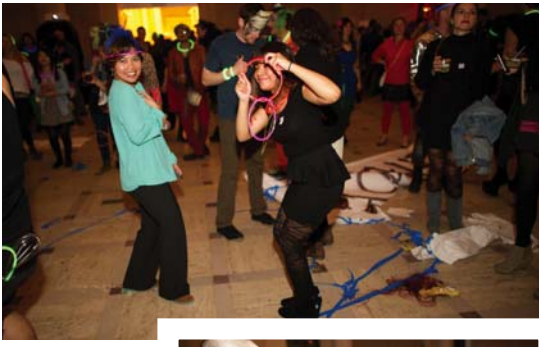
MCA Chicago has a rich culture of partnership-working which has revitalised its cultural programming, drawing in emerging adult audiences and families alike. The programme, reimagined by director of education Reitmaier three years ago, holds firmly with the vision statement of the organisation as: "an artist-activated and audience-engaged contemporary art museum." The gallery's flagship evening programmes which have shown the greatest upsurge in new audiences: MCA Prime Time.

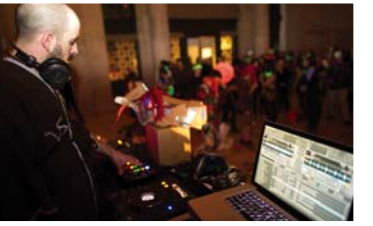
"Prime Time is an after-hours series that taps into the creative pulse of Chicago with an eclectic mix of live music, performance art, film screenings and interactive programmes that transforms the museum in spectacular ways … the series is an electrifying social experience that provides a platform for artists and key cultural groups in the city."

I was able to meet with Reitmaier during the planning stages of last year's Prime Time ⌘R event. The evening featured a high-profile partnership with online music magazine *Pitchfork* and promised "new ways of being refreshed through a variety of live performances, art activations, and food and drink." By working with and giving a platform to established and emerging artists, musicians, videogame designers and

Prime Time at MCA taps into the creative spirit of Chicago

PHOTOS: LAY LAO





An evening launch event inspired by the cult 1970s movie *The Warriors* was held to celebrate the exhibition China's Terracotta Warriors at the Asian Art Museum in San Francisco

art collectives, MCA positions itself not just as an art gallery, but as a cultural organisation with a responsibility to further artistic endeavour and innovation. Reitmaier and her team consider content that has resonance and relevance to a wider audience and encourage dialogue between visitors and communities.

Have a bold voice

Partnership events are a civic exchange. They allow us to develop creative and cultural relationships, bring in communities, widen participation and extend our reach as an organisation. Set within an evening event programme, partnerships open up institutions to a wider, more diverse audience base. Working with partners helps us recognise trends, drivers and influencers in the emerging adult demographic.

With competition both online and in the real world, cultural institutions can still offer a lone bold and provocative voice for young people. From social justice issues to Dr Who, innovative and responsive museums are more successful with emerging adults.

It's time to move away from the cathedralisation of knowledge and work with partners and communities to raise awareness that our institutions are there for everyone to enjoy. By building exciting new relationships with community leaders and advocates, we can reach new audiences, facilitate conversations and be a hub of cultural and civic exchange. When people are comfortable and passionate they spread the word about our institutions and become advocates for what we do.

Many organisations are now building advisory committees made up of this crucial emerging adult audience. Through membership schemes, focus groups and traditional advisory boards, these diverse groups work with cultural institutions to help direct programming, move young people through different levels of engagement and grow the leaders, influencers and donors of the future. Committee members all have their own sphere of influence and advocacy, offering multiple opportunities to grow relationships with the communities they represent

It's true that, by many, events can be seen as throwaway fun and less valid than formalised learning within an institution, but it is possible for museums and galleries to be redefined as attractive destination venues for emerging adult visitors whilst maintaining integrity and validity. There will always be pressures on museums services to grow audiences, increase income, develop philanthropic programmes and cultivate visitor giving. Programming plays a central role in delivering these essential outcomes – a robust public programme can succeed in being profitable and help to shore up the financial future of our institutions.

In the museum world, we must accept that change is inevitable. We need to move and adapt to suit our visitors who demand innovative, bold programming. We need to be fluid, malleable and responsive to the emerging adult audiences who will inevitably become the donors, directors and creators. We cannot stay still and hope that what we have will be good enough. The world is moving fast and we need to hop onboard. ●

Rosie Eagleton's full report was supported by the Winston Churchill Memorial Trust. *Evolving Museums: Redefining cultural programming for an emerging adult audience* is available to download here: http://lei.sr?a=U0o0L

part five

THE ATTRACTIONS BUSINESS

Driving revenues

In part five of our series, David Camp looks at a range of revenue streams and the various pitfalls they can sometimes present

David Camp

SERIES ROADMAP

This eight-part series outlines the patterns and dynamics that define every attraction – from visitor behaviour and guest spending to operating costs and profitability

CONTENTS

1. An overview
2. How are you perceived?
3. Benchmarking
4. Planning a new attraction
5. Driving revenues
6. Controlling costs
7. Is it worth it?
8. Benefits and impacts

The evaluation of potential revenues at attractions is critical, yet this is often over-estimated by people planning new attractions as there is little published information. In this article we discuss attraction revenue streams.

The most important revenue source for visitor attractions is admissions. Ticket revenues typically account for more than half the income from visitors and the measure of this income is as an admission per capita, also known as per cap.

Admission per caps are influenced by ticket prices, discounts, season pass sales and visitor mix. They are compared to the full adult admission price in a measure known as admission yield. Strong performing attractions that offer limited discounts can achieve admission yields of 80 per cent or more. Visitor attractions that operate in competitive markets with deep discounts can struggle to achieve yields of 50 per cent.

Per caps and yield measurement exclude the impact of VAT, which must also be allowed for. While a few countries do not charge VAT and US attractions typically add sales tax to tickets, most operators need to absorb the 20 per cent or so VAT rates that are common around the world.

Thus, an attraction that has a full adult admission ticket of £20 including VAT and achieves a 60 per cent yield would only achieve an admission per cap of £10 once VAT and discounts are factored in. Changes in VAT rates – as experienced in Spain in 2012 when VAT increased from a reduced rate of 8 per cent to the full rate of 21 per cent – are hard to pass on to customers. Spanish operators had to absorb this increase which directly impacted profits.

Ollivanders Wand Shop is a clever merchandise offering at Universal

Setting the right price

The importance of admission revenue means that setting ticket prices appropriately is critical. While visitors commonly complain about prices, they do have a feel for an appropriate value per hour of entertainment. Typically, adult admission to attractions in the UK are equivalent to between £5 and £7.50 per hour although there are exceptions for unique or short stay attractions. For example, the Shard and London Eye charge the equivalent of more than £30 per hour while a visit to the Harry Potter Studio Tour costs £13 per hour.

Once prices are established, it is difficult to make significant increases without a major investment in the attraction product. This price pressure has led to a surge in the number of upcharge activities such as VIP or fast passes, behind the scenes tours and animal encounters offered in recent years. These can be expensive, and while the appeal lies in a limited number

 ©CYBERTREK 2017

Upcharge activities such as fast passes can boost admissions income by 10 per cent

"Once prices are established, it is difficult to make significant increases without a major investment in the attraction product"

being available, they can serve to increase admissions income by up to 10 per cent.

Secondary spends

Food and beverage is an important secondary income stream. F&B spending is related to the visitor length of stay and the availability of alternative offers. Attractions where guests spend up to two hours typically generate spending on a drink and/or snack on-site, unless the attraction is located in an urban area with a range of alternative branded F&B offers. At larger attractions, with a dwell time of four hours or more, guests often have a meal on site.

Merchandise is also an important source of income. While retail outlets need to provide a variety of offers from small pocket money items to more expensive gifts, the range should be of a manageable size to avoid excess stock.

Most attractions look to create a visitor flow that exits guests through a retail outlet. This is a sound business decision. Back in 1997, we worked with the Royal Armouries Museum in Leeds, UK. Initially, the guests exited past the shop but not directly through it. We suggested altering the flow so that all guests exited through the shop and retail turnover increased by 25 per cent as a result.

Other visitor-related income can include parking fees, games, photos and videos.

Different types of attractions have a different revenue split. For example, fun attractions make more from F&B

Revenue mix

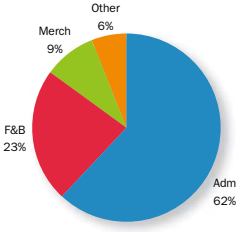
In terms of the mix of revenues across different types of attractions, the pie charts (below) show the typical split for theme parks, wildlife attractions and gated cultural attractions. As shown, the greater length of stay at theme parks leads to stronger F&B spending than at other attractions while cultural attractions are able to generate a greater proportion from merchandise.

In general, a strong performing attraction can look to achieve a total per capita revenue equivalent to the full adult admission price. So using the earlier example where the £20 adult admission ticket yielded an average admission per cap of £10, adding on F&B, merchandise and other visitor revenue could lead to a total per cap of around £20.

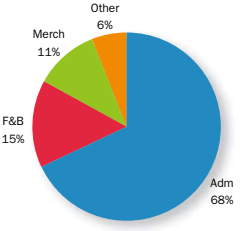
As with admissions, VAT is applicable across most of these secondary income streams and importantly there is the cost of goods to take into account. These costs have similar ratios across attractions and are generally 20-40 per cent for F&B and 30-50 per cent for merchandise.

The ever-increasing use of credit and debit cards also has an impact on revenues as attractions have to pay credit card fees

Fun Attractions



Wildlife Attractions



Cultural Attractions

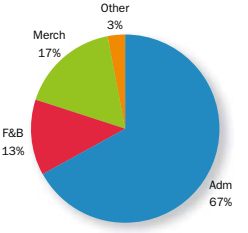


PHOTO: WILDLIFE RESERVES SINGAPORE

Singapore's River Safari capitalises on its popular Giant Panda Forest exhibit with the House of Kai Kai and Jia Jia shop and Mama Panda Kitchen

to the card issuers. While these have been capped in recent years, they can still have an impact on the business, particularly those with strong online ticket sales.

The goods sold generally equate to 10 to 20 per cent of total visitor revenues, depending on the guest spending mix.

Other forms of income

There are several other non-visitor income streams. The most common is grants. Many museums that offer free entry rely almost entirely on grant aid from national, regional or local governments, as do most national and regional parks. A number of gated cultural and natural attractions also benefit from substantial grant income.

Donations, friends and memberships can also be important sources of income, particularly to cultural and wildlife attractions. For groups such as English Heritage in the UK, Fondo Ambiente Italiano in Italy, and National Trusts in Australia, Canada and the UK, memberships provide a vital source of income to support the maintenance and restoration of the large numbers of properties entrusted to them.

Attracting significant income from sponsorship is challenging. While landmark attractions such as the Coca Cola London Eye and British Airways i360 in Brighton, UK, have been able to attract naming rights sponsorship, and KidZania generates strong sponsorship income from its activity partners, these are exceptions. Most sponsorship income achieved by attractions is of a modest value or via in-kind sponsorship from beverage, technology or other suppliers.

Membership is a vital income source for Italy's Fondo Ambiente

Events and accommodation

Hosting events and activities is another source of income. These can include conferences, exhibitions, concerts, parties, corporate events and sleepovers.

While most attractions look to operate their own F&B and merchandise outlets, some rent out these activities to third-party operators, receiving an annual rental stream. Although this generally leads to a lesser income than would be achieved by the attraction running the facilities directly, as the catering/retail company needs to make a profit from the business, it does make life simpler for the operator.

A number of large theme parks and other attractions have developed on-site hotels and other accommodation to create resorts and extend the length of stay of their guests. While these are typically operated as separate business units, they obviously have a significant impact on the total resort incomes.

Typically, commercial attractions generate in excess of 80 per cent of their income directly from visitors. At wildlife and cultural attractions non-visitor income often represents more than 50 per cent of total revenues. As we have shown, assessing revenues at attractions is a complex area with lots of income streams to consider. It is therefore critical to obtain experienced advice and input when undertaking business planning in this area. ●

David Camp, D&J International Consulting
email: david.camp@djintcon.com
website: www.djintcon.com

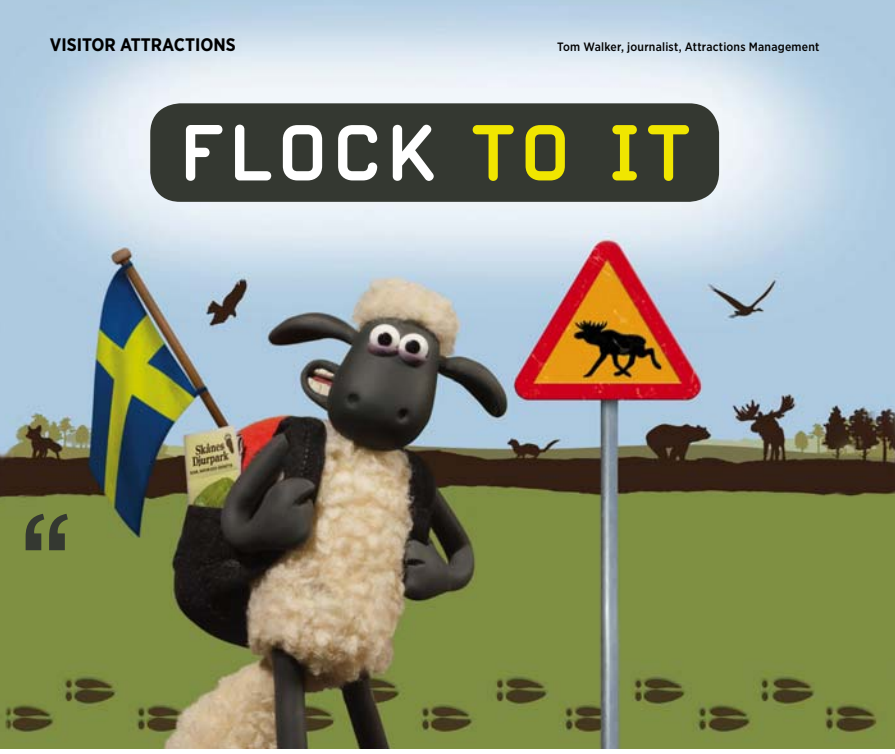
 ©CYBERTREK 2017

TRIOTECH
CREATOR OF FUN
AWARDS WINNING
INTERACTIVE DARK RIDES
TRIO-TECH.COM

World's best
interactive experiences!
Booth
U201
Booth
2-B111
Lagotronics Projects®
creating
unforgettable
memories
Dark rides • Outdoor rides • Upgrades
www.lagotronicsprojects.com

Tom Walker, journalist, Attractions Management

FLOCK TO IT



When Norwegian attractions operator Lund Group took over the troubled Skånes Djurpark wildlife park in Sweden in 2015, it needed a new flagship attraction to lead the rejuvenation. Enter Aardman Animations and its much loved Shaun the Sheep character

"One of the strengths of our company is that we're good at turning around ailing businesses," says Håkon Lund, CEO of Lund Gruppen Holding (Lund Group), a family-owned, Norway-based attractions operator. "We've become good at taking over and improving destinations which have lost their strategic focus and are struggling with investment and visitor numbers."

One of the first "turnarounds" the company took on was the Kongeparken theme park located on the west coast of Norway, close to the city of Stavanger. The park was first opened by a group of attractions entrepreneurs in May 1986 with an initial investment of around NOK250m.

It immediately faced issues and was declared bankrupt just months after launch. In the following years the attraction continued to struggle and changed hands regularly. By the time Lund Group became interested in acquiring the park – in 1997 – Kongeparken had gone through three different owner-operators and was under the control of a creditor, a Norwegian bank.

Håkon Lund is CEO of Lund Group, which operates Skånes Djurpark

"The park had gone bankrupt three times," Lund says. "While the market in which it operated was relatively small – around 300,000 inhabitants – there had been significant investments in the park's infrastructure and we saw an opportunity to develop it into a world-class attraction.

"We realigned it and turned it into a family-focused theme park based on six values – learning, playing, sharing, exploring, magic and excitement. We invested in a number of unique attractions and gradually developed it into one of Norway's top five most popular attractions."

 ©CYBERTREK 2017

Skånes Djurpark in Skånes, Sweden, is a zoological attraction with animals native to the region; A new Shaun the Sheep zone has diversified the offer

A FAMILY AFFAIR

Kongeparken now attracts more than 260,000 visitors per year and employs around 450 staff. It has won a number of awards for its visitor experiences – including Themed Entertainment Association (TEA) awards for its Barnas Brannstajon (Children's Fire Station) and Gråtassland (branded tractor ride) attractions in 2012 and 2014.

Today, Kongeparken is one of the main elements in Lund Group's parks and resorts arm, one of the three divisions which make up the company. As well as the parks division, it has a highly successful festivals and events business, which operates everything from music festivals and cultural events to Christmas markets. The third strand, a travelling fairs businesses, dates back to the foundation of the business.

"Lund Group is a family business currently in its fourth generation," Lund says. "The company dates back to 1895 with my great-grandfather, also called Håkon, a showman who had travelling shows, but also had parks in Oslo, Berlin and Ireland. He set the company's focus on providing excellent guest experiences, something we still take great pride in."

Lund adds that because of the nature of a family business, there are benefits when planning for the future.

"One of the strengths of a family business is that you can think very, very long term," he says. "We don't think ahead in terms of quarters or 12-month or even 10-year periods. We work to horizons of 30 to 50 years for each of the projects that we take on."

ANIMAL ADVENTURES

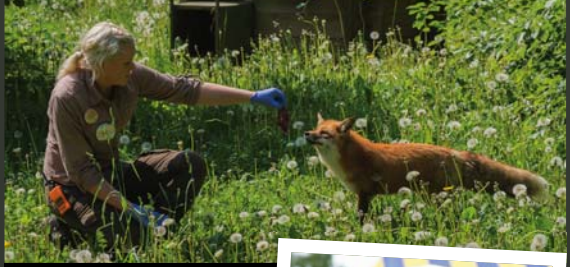
One of the projects that recently appeared on the Lund Group's horizon was Skånes Djurpark wildlife park in Sweden – another destination in need of a turnaround.

First launched in 1952 and located in a picturesque setting in Sweden's Skåne region, the vast attraction, covering nearly 100 hectares (247 acres), housed an eclectic selection of wildlife, nature trails, play zones and a small waterpark. "It's a wonderful setting, you are quite literally surrounded by wild nature," Lund says.

Owned and operated by the non-profit Skånes Djurpark Foundation, the attraction was in trouble and relied on taxpayers' money to keep it ticking over – mainly due to visitor numbers lagging behind targets. According to Lund, the low numbers were a symptom of a bigger problem.

"The foundation's main challenge was that it hadn't really decided what type of visitor attraction it wanted to run – a traditional zoo or a wilderness park," Lund says. "It was also unsure whether the park should just have Scandinavian animals or have exotic ones too."

After a particularly bad two years between 2011 and 2013 – when the park lost 150,000 visitors – Lund Group was contacted by the Skåne region's governor to see if it could help. A feasibility study was conducted and in June 2014 the company signed a deal to take over. Lund Group began operating the park in January 2015. ▶



Lund Group chose the Shaun the Sheep IP as it fitted with Skånes Djurpark's family appeal and the natural setting of the park

Having a strong story and a strong brand on board as a partner has proven to be key to the success of this park

INTELLECTUAL PROPERTIES

The first thing Lund Group installed at the park was a clear vision. A decision was made to turn Skånes Djurpark into the world's largest showcase of purely Scandinavian animals – a conscious choice made with the target audience in mind.

"The location of the park means that if you travel up from Germany or Denmark, it will be the first place you will come across authentic Nordic nature and its wildlife," Lund says. "The idea is that you can come to Skåne, in the south of Sweden, and you can meet all the animals you would see later on if you would continue to travel to northern Sweden, Finland or Norway."

As part of the plans to breath new life into the offering, Lund Group looked at adding an intellectual property (IP)-led themed attraction. It was a method Lund Group had deployed successfully in the revival of Kongeparken, where it had installed the €2m (£1.7m, $2.1m) Gråtass (Little Grey Fergie) attraction based on a popular Norwegian TV character.

The concept for Skånes Djurpark needed to be carefully considered, however. "We realised early on that any themed attraction at Skåne – especially a branded one – needed to feel natural in the surroundings of the park," Lund says. "Not a plastic-fantastic universe, but something that would fit in the picturesque setting. We were very conscious of making sure that any addition wouldn't create a huge contrast with the rest of the park.

"Our focus was to find an IP that was 'real' and to do with animals. We created a list of things we wanted – the animal aspect being a key one – and visited a number of different IP owners and developers. We shortlisted five, cut it down to two and in the end chose UK-based Aardman Animations as our clear winner."

SHEEPING AROUND

Famous for its old-school, stop-motion clay animations, Aardman has a burgeoning IP portfolio of animal characters and a decision was made to utilise one of them, Shaun the Sheep, at Skåne. Following an investment of £5m ($6.2m, €5.9m), the family-oriented Shaun the Sheep Land officially launched in June 2016.

Visitors to the attraction are welcomed into a traditional Swedish country fair, where there's a meet-and-greet with Shaun and a chance to explore his home at Mossy Bottom Farm. Guests take a tractor ride, helping Shaun to find his misbehaving, lost flock before the farmer wakes up and finds out his sheep are missing.

According to Lund, the addition has been a hit with guests. "The feedback has been 100 per cent positive," he says and adds that Shaun has played a big part in the recovery of the park.

"In the first year since we took over we had a 15 per cent increase in attendance. in 2016, when Shaun was introduced, we achieved a 30 per cent increase. Having a strong story and a strong brand on board as a partner has, I think, proven to be key to the success of this park."

NEW EXPERIENCES

The turnaround of Skånes Djurpark has got off to a good start, but Lund says there is no room for complacency. "Continuous investment in a destination is key for developing it and that is true at Skåne, too," he says, adding that there will be new features for guests to enjoy in 2017.

"We are continuing our investment programme and this year we will be looking at the way we introduce people to the wilderness aspect of the park."

He remains tight-lipped about the exact details, however. "Lets just say that we're looking at different types of technologies and transport solutions in order to come up with a different way to giving people a nature experience with animals." ▶

 ©CYBERTREK 2017

We welcome you to meet with us!
Booth 2B-114
DEAL DUBAI 2017

27, 28, 29 March 2017
Dubai World Trade Center, UAE

WWW.VEKOMA.COM

Dubai Entertainment Amusement & Leisure Show DEAL 2017

VEKOMA

SCHAAPWEG 18, 6063BA VLODROP - THE NETHERLANDS TEL+31(0)475-409222 WWW.VEKOMA.COM

D J WILLRICH LTD
FOR THE TECHNOLOGY BEHIND YOUR STORY

CONSULTANCY
AV SYSTEM DESIGN
SHOW CONTROL DESIGN
LIGHTING DESIGN
INTERACTIVES
SUPPLY & INSTALLATION
SERVICE & SUPPORT

ANNIVERSARY 30 YEARS ANNIVERSARY

+44 (0)1590 612603
djw@djwillrich.com
www.djwillrich.com

DJW
TAKING TECHNOLOGY FURTHER

NGAIO HARDING-HILL

senior manager, attractions and live experiences, Aardman Animations

What was the process that led to Shaun the Sheep Land at Skåne?

We were invited by the Lund Group to visit them at Kongenparken in 2014. They presented their plans for Skånes Djurpark, which they had just acquired, and expressed an interest in partnering with an IP that shared similar values to theirs. We pitched a range of concepts that integrated the brand into the attraction and they liked them. For Aardman, Skånes Djurpark was an ideal location for Shaun's first international attraction – beautiful parkland filled with wild animals.

How closely did you work with Lund Group on the attraction?

We worked very closely with them all the way through the project. We recognised our shared commitment to telling a great story and that we both had our own areas of expertise.

One area that really benefitted from the creative partnership was optimising the pre-opening visitor experience. Working together we created a narrative that told the story of the flock's journey to the park from Mossy Bottom Farm. Using bespoke animation and a PR campaign that captured the flock's journey in online postcards at iconic landmarks, visitors were able to share the flock's journey in real-time. It really built up anticipation for the opening.

What's your strategy concerning partnerships with attractions?

We have great ambitions for this area of our business and from a brand perspective, our strategy is to work with partners which share and understand the values of our company and brands. Our mission is to create highly engaging entertainment using strong, funny characters in compelling stories for worldwide family audiences.

In comparison to some of our competitors in the world of animation, we have the ability to be creatively nimble and highly responsive and so we seek out partners that have the highest creative ambitions for their visitor experiences. Quality is also integral to everything we do and is a priority focus in our partnerships with attractions.

How many attractions has Aardman worked on?

Our first attraction was Wallace and Gromit's Thrill-o-Matic ride at Blackpool Pleasure Beach, which opened in 2013. The first Shaun-branded attraction – Shaun the Sheep Experience – opened at Land's End in 2015 and was created in partnership with Heritage GB. Shaun the Sheep Land at Skånes Djurpark is Shaun's first international attraction.

Adding to these, we have a large portfolio of international touring exhibitions, live experiences and touring stage shows featuring Aardman brands – such as Wallace and Gromit's Musical Marvels, Shaun the Sheep Stage Show and Shaun the Sheep's Championsheeps.

Are there any plans to expand the attractions operations?

Yes, we have ambitions to develop Aardman's presence within the sector. We have exciting concepts for a Shaun the Sheep family entertainment centre and an Aardman Experience – and we'd love to create an Aardman Land with the right partner.

Nick Park's new film, *Early Man*, releases early next year. It provides a whole new cast of characters and adventures to launch into the world of visitor attractions so there are loads of really exciting projects on the horizon for this area of the company.

What are the benefits and opportunities you see in the sector?

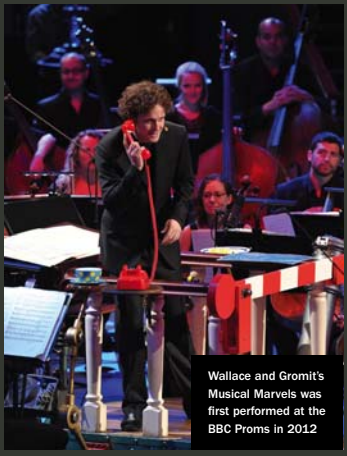
Attractions provide a new gateway for audiences to be introduced to our characters and brands. As our attractions portfolio expands, it's exciting to anticipate that attractions may be the first interaction people have with our brands, rather than through the more traditional screen-based experience. Fantastic new developments in attractions technology, like VR and AR, also offer great opportunities for us to continue to combine our core talents as filmmakers and storytellers with the world of visitor experiences.

Aardman has a portfolio of well-loved characters, including Wallace and Gromit

Guests ride in cars themed like Wallace's slippers on the four-minute Thrill-O-Matic at Blackpool Pleasure Beach, UK

We have exciting concepts for a Shaun the Sheep FEC and an Aardman Experience – and we'd love to create an Aardman Land

At Land's End (or Lamb's End), UK, visitors must try to cure Shirley the Sheep's hiccups. Shaun the Sheep Experience is a joint venture between Aardman Animations and Heritage GB



Wallace and Gromit's Musical Marvels was first performed at the BBC Proms in 2012

IAAPA

Disney's chief safety officer Greg Hale stepped into his new role as IAAPA chair in November. *Attractions Management* sat down with Hale and asked what he hopes to achieve with the organisation

GREG HALE

Greg Hale developed Disney's Access device, which is now in use at US National Parks sites and other attractions

It's a busy time for IAAPA, with the organisation moving its headquarters to Orlando, Florida, and preparing for its centenary in 2018. Greg Hale is overseeing the exciting year ahead.

What elements of your background will be useful in your role as chair?

I've been at Disney for 28 years. I started out in ride and show engineering. In 2002, I became the company's first chief safety officer worldwide. I've developed technologies like Disney's FastPass, where I'm one of the original patent holders, and Disney Access, a hand-held device that provides captioning, audio descriptions or assistive listening to help guests who are visually impaired or hearing impaired.

One of the beautiful things that Disney allowed me to do was to share this technology and a lot of our safety technologies with the rest of the industry. We want to help make the world safer and more accessible and not keep those types of things as a competitive advantage. I look for advanced technologies and best practices that we can apply to safety worldwide and all of that experience helps with my role with IAAPA.

All IAAPA members have learnings and practices they can share with each other.

 ©CYBERTREK 2017

Trade shows and conferences are a great platform for sharing industry knowledge, Hale says

I've never seen another industry so open to that, where competitors will teach or even encourage others to adopt their business, marketing and safety practices in order to help make each other stronger.

My focus now as chair is to really encourage that sharing to make this whole industry more efficient, safer, with better technology and innovation and better guest service. I'll be pushing for everyone to come forward and share what they know with emerging parks and others who are trying to get into this business. That's what makes this industry unique, the way we work together to a common goal.

Do you have examples?

Disney's Access device is now in use in National Parks and museums all across the US and it's starting to go into China and Japan and other countries. Ride accessibility is another area where people are sharing their experiences, where we're seeing a tremendous amount of collaboration between operators, ride makers, experts and guests with disabilities. It's good to see people coming together to allow guests with disabilities to participate and have that experience.

We had sessions at IAAPA sharing information about using drones to do safety inspections, to inspect tracks and structures and not put people at risk of falling from a rollercoaster. There were over 100 sessions like this at IAAPA.

What did you learned from outgoing IAAPA chair John McReynolds?

It's very helpful that IAAPA has a rotation system so you spend two years as a vice chair and one year as chair, which gives you the chance to watch and learn from the current chairperson.

Former IAAPA chair John McReynolds

I've worked with John for 20 years in different ways but I really admired how he managed the board. He's very decisive and a real driver for getting things done. His area of expertise was government relations and he had a huge hand in working with government officials when we were deciding whether to move IAAPA's headquarters to Orlando, Florida. They are welcoming us with open arms and providing assistance to make that move.

When do you plan to move?

We will start relocating some of the functions to Orlando in 2017, but it will take some years to complete. We're leaving our government affairs group back in Washington, DC. The rest of the staff will all move as quickly as possible. ▶

Facility tours, keynote speeches and networking events are always well attended at IAAPA

Park safety has sadly been very much in the public eye with a few high profile incidents over the past 18 months. How do you respond to this situation?

IAAPA has always had safety as one of its core values and has continued to increase its outreach to help others with best practices for safety. They can learn through the IAAPA Safety Institute and other educational programmes that we hold all over the world. Often in these emerging markets, IAAPA is able to reach out to operators before they even open their first park, showing them how to implement the great safety practices that industry leaders have developed over the years. That makes the whole industry safer around the world.

How can you and how can IAAPA support the industry if something does go wrong like it has recently?

IAAPA doesn't get directly involved in an accident that happens, as that's the responsibility of the local and regional authorities. Again, our goal is to put in place practices to prevent accidents ever happening. When something bad happens, the good that comes of it is learning how to prevent it from happening somewhere else. By having so many members there is lots of data we can pool together, so people all over the world can learn from incidents that have happened as well as best practices and standards. We are preventing accidents around the world and we make the best of those rare bad situations by using that knowledge to prevent accidents in the future.

Are there any new initiatives in the works?

We pilot things and when they are successful we expand them, such as the Safety Institute, which has been held in Dubai, Vietnam and Japan in the past few months and earlier in the year in Latin America, Asia and other places. Those are going to continue to grow and develop.

> "We're investing more in data so we can be the premiere go-to resource for statistics and information on the attractions industry"

Hale is a flagbearer for safety standards

We are also investing in data so we can be the premiere go-to resource when people need statistics and information on the attractions industry. We have a multi-year plan to provide good economic and benchmark data and we want to invest in that area to provide a strong service. We should be the one-stop-shop for credible information on the industry. We're putting a lot into research, surveys are going on and lots of different things to collect that data.

What else is happening?

There are our anchor events. For example, for the past 12 years we have held a standards harmonisation meeting with government officials, operators and manufacturers to try to reach a common set of safety requirements, whether it's the EN, ISO or ASTM, that are used all over the world and the critical safety learnings are embedded in all of them.

Our Leadership Conference is a long-standing annual event focused on the most senior people in the industry, and we are always adding more components to that. When we started 10 years ago it was really a series of facility tours, but today we bring a true educational component with breakout sessions, guest speakers and facility visits.

What are your thoughts on diversity in the organisation?

I was on the Strategic Planning Committee many years ago when we decided we wanted to not just embrace diversity but ensure it was central, as we were growing into this truly global organisation. Diversity was written into the byelaws so we would have a blend of different types of attractions from all over the world. Huge diversity is built in. We also see many entrepreneurs, many family-owned or multi-generational companies, husbands and wives or fathers and daughters starting up businesses and we get a blend of that on the board. We need to represent the whole of the global industry and not overlook anyone.

What global challenges are pressing for the industry?

The industry is booming on a sustained level and all three of IAAPA's trade shows last year were recordbreaking. In fact, the demand for entertainment is growing so much that it's a challenge for the suppliers and manufacturers to keep up. It's a good problem to have, but it's true that in some cases our members are booked up with work for the next six or seven years.

Did you enjoy the 2016 IAAPA Expo?

It was phenomenal. People see friends they have known for 25 years, in some cases 40 or 50 years. It's part of the passion people have for this industry. You can put smiles on faces and help create experiences that will be lifetime memories. People put their hearts and souls into this industry. They want it to be successful and want others in the industry to be successful too. ●

 ©CYBERTREK 2017

WHOLESOME

THE WHOLESOME FOODS YOUR VISITORS AND STAFF WANT . . .
THE HEALTHIER BOTTOM LINE YOU WANT

The #1* Franchise is a great fit for your location. The SUBWAY® restaurant chain has more than 50 years experience and has made it possible for thousands of individuals to build and succeed at their own businesses. The chain offers access to a well-structured and effective system that has been developed and perfected over several decades.

There are two options available:

- ✔ You can join the team and become a SUBWAY® franchisee.
- ✔ You can earn rental income by leasing space to one of our experienced franchisees.

SUBWAY®

WORLDWIDE PARK/REC PROGRAM

Contact Liz Smethurst
Call 203.877.4281x1398
E-mail: Smethurst_L@subway.com
www.subway.com

SUBWAY® is a Registered Trademark of Subway IP Inc. ©2017 Subway IP Inc. *More locations than any other QSR

▶ Ghostbusters: Dimension at Madame Tussauds

VIRTUAL VENTURES

Multi-player VR experiences are bringing people together in both physical and virtual worlds. Meet two companies leading the way in a new form of gaming-style midway attraction

Alice Davis, managing editor, Attractions Management

Virtual reality is making countless experiences accessible to people and theme parks and museums have been among those quick to harness its potential. The major criticism of VR that's made by attractions professionals, however, is that the experience is too isolating – and that's at odds with the social and interactive appeal of attractions. But two companies, Zero Latency and The Void, have addressed that problem by developing team-based, communal VR experiences where all players interact and work together or compete against each other.

Instead of VR being an extra element guests can try out at a theme park or a museum, these innovative start-ups are making VR facilities strong enough to stand alone as attractions in their own right. Both game-focused and story-focused experiences are possible.

▶ COMPANY: THE VOID

The Void, a Utah-based tech firm on the brink of opening its first VEC (Void Entertainment Centre) in Linden, has already worked with Merlin Entertainments and Sony Pictures to launch Ghostbusters: Dimension at Madame Tussauds in New York City.

Who you gonna call?

Part of the Merlin attraction's new Ghostbusters zone, guests enter a virtual world where they must trap supernatural enemies as they search an apartment building. The multi-layered, multi-sensory VR experience uses The Void's proprietary Rapture hardware – an HMD, "backtop" backpack that contains a computer, 22-point haptic feedback vest and shooting device, and Leap Motion's hand-tracking technology – as well as real-life props and effects, so that when guests touch an object, for example, they get a corresponding tactile sensation. There's a $20 supplementary ticket price, but since its July 2016 launch, Ghostbusters: Dimension has been well received, attracting more than 30,000 visitors so far.

▶ The Void developed its own Rapture hardware, which includes this Head Mounted Display (HMD)

"Nothing like this had ever been developed before," says Ken Bretschneider, CEO and co-founder at The Void. "We started by literally strapping laptops to our backs and wearing clunky headsets while walking down hallways to test the mapping of digital worlds over physical spaces."

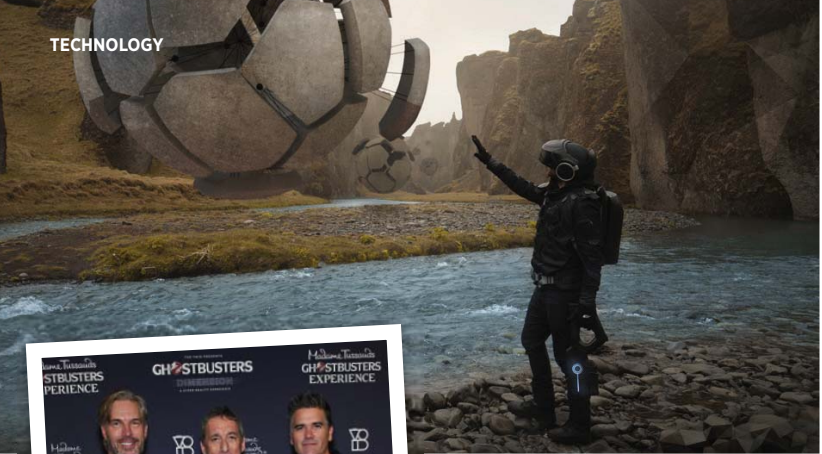
While Bretschneider is looking into working with other partners in a similar way to Madame Tussauds, soon the company will open its own facility to the public. The idea is to roll out the concept in locations around the world. The media ▶

"NOTHING LIKE THIS HAD EVER BEEN DEVELOPED BEFORE. WE STARTED BY LITERALLY STRAPPING LAPTOPS TO OUR BACKS TO TEST THE MAPPING OF SPACES"

Ken Bretschneider, CEO, The Void

 ©CYBERTREK 2017

▶ The Void experiences are a combination of physical set, real-time interactive effects and virtual reality narrative



▶ The Void's co-founders Ken Bretschneider and James Jensen with the director of the original Ghostbusters films, Ivan Reitman (centre)

▶ content can be changed or rotated to encourage repeat visits, while the social aspect of the experience remains central.

"The Void's hyper-reality is very different from at-home virtual reality," he says. "We're especially passionate about creating social experiences for groups of people."

In fact, Bretschneider has long been inspired by the attractions industry and has a passion for haunted attractions, fantasy worlds and interactive theatre experiences. In 2008, he began hosting a haunted Halloween experience, which grew in size and popularity until it was attracting 10,000 people. From here, his idea for Evermore, a vast fantasy theme park with high-tech and immersive elements, was born.

Endless applications

As he began to plan Evermore, taking Void co-founders Curtis Hickman and James Jensen on board, it became clear that virtual reality was a necessary part of the park. They focused on developing a free-roam VR attraction, and began to see its business potential. The Void was too big to be simply an attraction inside Evermore: it had legs of its own.

"I think it was fate. There were too many good things that had to come together in order for us to create this new reality," he says, though Evermore is a dream he still hopes to realise some day.

When it comes to the future of virtual reality, Bretschneider sees a multitude of possibilities.

"We envision applications spanning the gamut of what's currently possible, ranging from entertainment to education and further practical applications," he says. "Within entertainment, we anticipate creating a variety of experiences from action, to adventure, exploration and horror. Regarding education, we see applications which go beyond edutainment with the ability to teach – through experience – complex things such as empathy.

"Innovation is clearly feeding, and developing, technology, and this is spilling into all areas of life," he says. "I'm personally excited about advances in medical-related science, as many aspects of our current system seem archaic and limited. I find AI fascinating and believe advances in that area will benefit The Void."

▶ COMPANY: ZERO LATENCY

Meanwhile, on the opposite hemisphere, another trio of tech entrepreneurs was developing a warehouse scale, free-roam, six-player game arena. Scott Vandonkelaar, Kyel Smith and Tim Ruse set up Zero Latency's first venue in Melbourne, Australia, quickly followed by installations at Joypolis amusement centre in Tokyo, the 7Fun Centre in Madrid, and Main Event in Orlando, Florida. Zero Latency is also coming to Kalahari Resorts' Wisconsin Dells and Pocono locations.

On the right track

When Vandonkelaar, Smith and Ruse started developing a multi-person VR experience where the users could move around, they found the tracking systems that were on the market could not meet their demands.

"We got started on developing our own tracking system and spent the better part of a year getting it working for a single player before trying to scale it up for more than that," says Ruse, CEO at Zero Latency. "Our first run started as modestly as mounting an automotive backup camera on a piece of wood, before we ordered better equipment for the development phase. But our patent-pending tracking system has made all the difference. It allows us to create a large-scale multiplayer experience that is cost-effective with negligible latency, which

▶ Zombie Survival is a multiplayer VR experience from Zero Latency

 ©CYBERTREK 2017

▶ Zero Latency VR players are equipped with HMDs, backpack PCs and controllers, which act as virtual weapons

▲ Players work together to unlock new levels in *Engineerium*, Zero Latency's kid-friendly puzzle game

is essential. The booming mobile tech industry is also giving us a boost, as it drives the availability and pricing of important technology for our free-roam experience, such as battery life."

Profitable model

They moved to a 4,000sq ft (370sqm) space in Melbourne and continued the R&D, eventually opening the doors to the public.

"We had no idea how popular it would be, but when we brought in over AU$100,000 in first few weeks, despite being located in a remote industrial area, we knew we were on to something," Ruse says.

While the Melbourne arena is self-owned and operated, Zero Latency works with partners in the other locations, installing the VR arena into existing attractions. It should be a profitable model, promising potential partners low set-up costs and simple maintenance with high demand and high ROI. Although Zero Latency, which won the People's Choice Award at the IAAPA Expo 2016, is not ready to share exact costs and says that investment varies depending on factors such as the size of the arena and whether it's a freestanding attraction or part of an existing facility, the model is structured to target a return on the initial investment in about a year. All the partner needs is a 2,000sq ft (185sqm) space.

Versatility

The Zero Latency experience can easily be completely revamped with new content.

"We currently have three complete games in operation and plan to develop at least one new game every year, along with new levels for existing games. Plus we're in discussion with some customers who want exclusive custom content," Ruse says. "Each venue can customise aspects of the games, such as how long each session runs, to best serve their local markets. They can be as short as 12 minutes or run well over half an hour. We provide enough sets of game gear so that one team can be suiting up to play, another can be playing in the arena, and a third is gearing down after their game, plus an extra set of gear charging and ready to go. That way there is very little downtime on the arena floor."

Zero Latency uses OSVR HDK 2.0 headsets, backpack PCs by high-performance gaming company Alienware, Razer microphone and headphones and a custom-built game controller that serves as the virtual weapon in some games.

Ruse says that as the technology develops, the resolution will improve and they'll be able to increase player numbers. "We've successfully tested 16 players at once, but deploying that will require some re-engineering of our gameplay to keep all players challenged and entertained."

Things are certainly busy for Zero Latency as they continue to enhance the VR experience, develop new content and roll out the concept with partners worldwide. Tech start-up investor Carthona has recently injected a further AU$7m into the company to help them scale up to meet demand. ●

Keeping it real

How do we create authentic experiences in themed environments and immersive spaces? Cultural researcher Scott A Lukas investigates

In the mid-90s, while working at Six Flags AstroWorld, I witnessed an interesting conversation about one of the park's newest rides. It was the Mayan Mindbender, an indoor rollercoaster that was being repurposed from its previous use in another park through means of a Mayan theme.

The conversation was initiated by a lead ride operator who expressed concerns about the park's latest ride and the specific foundations of its Mayan theme. The glyphs and symbols, he had determined after some research, were all wrong. "Some of them aren't even Mayan," he said.

While a number of those present were curious about his criticisms of the theming, a few were surprised by his level of concern. Why get so wrapped up in the sources of an attraction's theme? They are – like all immersive spatial design – engineered to please visitors, not educate them. Does it matter if a themed attraction like the Mayan Mindbender is accurate or authentic? Is it even possible for them to be accurate or authentic?

The issue of the sources used to create a themed ride like the Mayan Mindbender ultimately relates to the topic of authenticity. This topic has relevance for the worlds of media, consumer society and, especially, themed and immersive spaces. Authenticity is one of the most discussed and debated topics of the contemporary world. Yet, despite its significance, it remains a rather elusive concept.

Meanings of authenticity

There are many meanings of authenticity which reveal to the designer of themed and immersive spaces the true challenges of undertaking any project. For example, an authentic thing, person or place is something that's true to itself. Another form of authenticity is conveyed by the idea of something natural, without artifice.

The ghost town of Bodie, California, looks the way it used to thanks to the practice of "arrested decay", which attempts to preserve its structures but not in an overt or artificial way. Related to this idea is authenticity as an accurate reflection of something. Visitors to a site of historical reenactment like Colonial Williamsburg might wonder how much of what is told and performed at the site is an accurate or honest reflection of past times.

Authenticity is also often tied to ideas of tradition, heritage and history that convey that a person, place or thing is the result of something that came before it. In the bard or griot cultures of West Africa, for example, epic songs and performances are passed down from one praise singer to the next with the assumption that later singers will accurately reflect the traditions of the past.

A community of American Civil War reanactors in the US plays out the Battle of Chancellorsville

Bodie State Historic Park, a ghost town and visitor attraction, receives 200,000 visitors a year

The ghost town of **Bodie, California**, looks the way it used to thanks to the practice of **"arrested decay"**, which attempts to **preserve** its **structures** but **not** in an **overt** or **artificial** way

Perhaps the most significant meaning of authenticity is implied by the real. The original, pure or genuine suggests the "real thing" or at least related enough to the "real thing" that it doesn't cause distraction or concern by the viewer. A visitor to the British Museum would have a much different reaction to the Rosetta Stone were he or she to discover that it was a replica and not the original.

In terms of themed and immersive design, these meanings of what is authentic and what is not have interesting, if not vexing, ramifications. As with the Mayan Mindbender, any space may be interpreted – by another designer, a guest, a worker, a cultural critic – as inauthentic. The reasons each individual perceives something as being authentic or inauthentic are the result of different expectations, varying understandings and divergent personal contexts.

How, then, can authenticity be understood in such a way that it will have a meaningful application in the themed and immersive space industries?

Getting it right

Some years ago, I took part in a conference in Freiburg, Germany, that brought together designers and academics who studied themed and immersive spaces. By the middle of the conference, an interesting divide emerged between those whose primary interest was theme parks and those who focused on museums and interpretive spaces. Differences in opinion centred on what many of the participants deemed to be an issue of "getting it right."

One professional historical reenactor had witnessed a reenactment event – involving knights and jousting – that took place in front of a Pizza Hut in a small town. After he showed us a photograph of the event, the assessment was that this particular reenactment event had got it all wrong. People could not appreciate the performance, he said, because the context was inappropriate and the whole tone of the event was therefore one of inauthenticity.

As the conference continued, some of the museum professionals seemed to assert that those from the theme park world could not get certain topics right – notably those of a historical or heritage character – while theme park professionals offered that the museum professionals were displaying elitism and an inability to use appropriate techniques of entertainment and immersion to better engage guests and audiences.

The divide between these two camps of theming professionals was not resolved by the end of the conference, but the analogy that it provides suggests to us both the challenge and the promise of authenticity.

An important issue that emerged from this particular controversy is that of aura. We may reflect on the important work of philosopher Walter Benjamin who once wrote of the situation in which a work of art loses its aura – its presence, tradition, authority, specific time and place – as a result of being caught up in modern means of reproduction, such as through forms of technology. As an example, we might imagine how different the *Mona Lisa* is as an original object that sits in the Louvre and as a reproduced image on a coffee mug.

The aura of a space

The aura, then, suggests something quite important in terms of originals, copies or other new versions. Many themed spaces, such as themed casinos, attempt to reproduce the aura of other places by using design, architecture, sensory means, material culture, technology, performance and other approaches in their new versions. Social critics often comment on these reproductions of other places and cultures and cite a lack of authenticity as an important issue with such places. Of course, we should remember that the concerns stated by such critics often have to do with things unrelated to the principles behind the various designs of the sites.

The artist Anna Halprin spoke of authenticity as an involvement of people ▶

in her aesthetic environments such that they could experience "life lived whole". This view from the art world of art challenges simplistic assumptions of social critics in terms of the problem of aura in spaces like themed casinos.

In fact, other artists remind us that aura is likely something that is not stable or fixed, but is something that can move and be transformed. Andy Warhol's iconic *Campbell's Soup Cans* uses images of originals but takes on new meaning and new values as it suggests an entirely different sense of the aura of art.

The same can be said of themed casinos. The Paris in Las Vegas, Nevada, uses reproductions and new versions of iconic landmarks from the French capital, as well as associated forms of human performance, décor and sensory stimulation to create an ambiance of Paris and French culture. In a small space it cannot reproduce every detail of Paris or French culture, so certain details, symbols or archetypes are chosen for the spaces of the hotel and the casino, and these are used to connect guests with those spaces. Aura is present in such spaces, but it is not the same aura that one would find in Paris.

Perhaps the important reminder here is that while the authenticity of themed and immersive spaces is tied to notions of aura, there is more than one way to experience Paris and France. As controversial as it may sound, the guests who visit the Paris in Las Vegas are experiencing one of many auras of Paris and France. As architect Peter Eisenman said, new forms of architecture and design can create news auras or "the possibility of a presentness of something else." This is especially relevant when we consider that the etymology of "aura" relates to breeze, wind and air – the traces, images and new versions of a previous form. Thus, we might concur that authenticity never rests in any one place, time or context.

Civil War reenactors often differ in opinion on the level of authenticity they need to achieve

The eye of the beholder

In terms of the aura that might be felt when a guest enters a themed casino like The Paris in Las Vegas, we should again recall the fact that visitors' perceptions of the space will vary greatly with the particularities of each guest.

This eye of the beholder problem reminds me of the ways that we workers within the theme park industry were accustomed with dealing with concerns, issues and interpretations of guests that were often lost on us. A few days working in guest services or guest relations reminds the worker that the experiences of guests are not the same as those of designers, managers or industry workers. As in so many aspects of themed and immersive entertainment design, we discover the curious problem in which one guest's idea of authenticity differs from the next. The same is true of differences in perceptions of authenticity among designers and social critics.

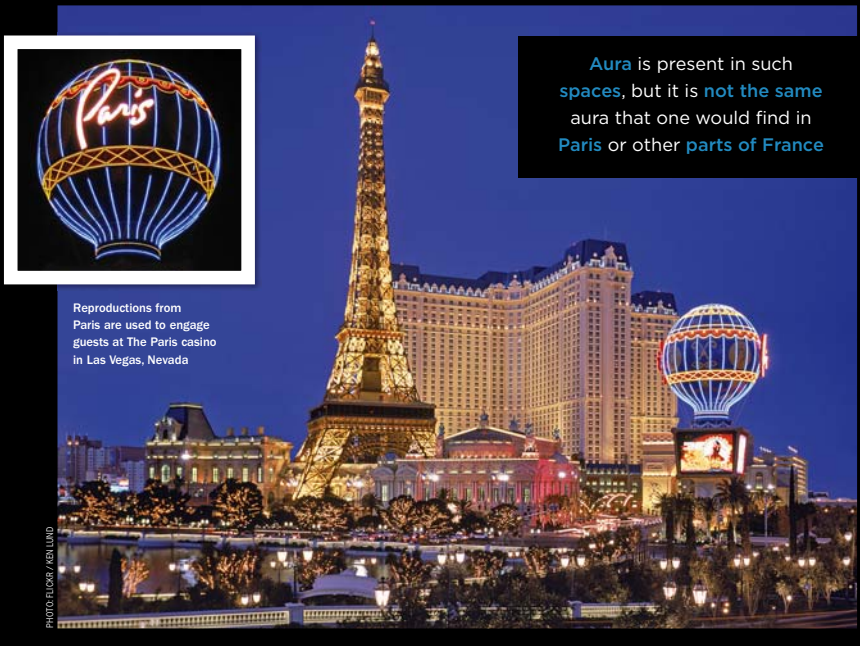
The eye of the beholder problem should not be seen as something stifling; in fact, it can be an issue that actually expands the possibilities of authentic design.

In an interview with Gordon Jones, Civil War reenactor, curator and historian at the Atlanta History Centre, this point was made very clear. In terms of the immersive environments of Civil War reenactment, "to be effective at stimulating a 'rush,' historically themed environments need not be 'true' in any historical sense; they need only be 'real' in the eye of most beholders."

Within his work in reenactment environments, he discusses the roles that trust, commitment and disagreement play in the creation of communities that simultaneously reflect the desire of reenactors to "get the past right" and to come to consensus as to whether they succeeded. The fact that people disagree about the degrees to which themed and immersive spaces are indeed authentic may lead to powerful forms of community in which individuals discuss the differences of their interpretations and, along the way, create new forms in the process.

Andy Warhol gave soup cans – on display here at MoMA in New York – new meaning and values

PHOTO: JONATHAN MUZKAR



Reproductions from Paris are used to engage guests at The Paris casino in Las Vegas, Nevada

PHOTO: FLICKR / KEN LUND

Aura is present in such spaces, but it is not the same aura that one would find in Paris or other parts of France

Factors in authenticity

The values of openness, feedback and experimentation in terms of guests and their roles in spaces that aim to be authentic are supplemented by additional values that also emerge in relationship with the guest's view of space and connect to important design principles that are rooted in the intentions of designers (and operators) of spaces.

Process

Spaces that show they evolved over time offer the idea of authenticity as they suggest that they were not produced haphazardly or quickly. The example of a patina on the surface of a historic building is a reminder of how spaces evolve over time. Even in a new space, the idea of process can be conveyed by aspects of architecture, design and material culture.

Time

Related to process is time. Archaeologist Cornelius Holtorf reminds us that spaces don't have to be historically old to appear old, suggesting the notion of "pastness" to convey an idea of the past. Immersive space designers have opportunities to playfully work with time – or more specifically, the perception of time – and create spaces that resonate with guests.

Detail

The ways in which a space expresses itself through the ideals of the designer are connected with the nature of the details in that space. In themed spaces, microtheming or attention to the smallest elements of detail – even those that the guest may not see immediately – may result in spaces that are more organic and holistic in nature. The example of Hidden Mickeys or hidden representations of iconic Disney characters or images – notably Mickey Mouse's ears – in Disney theme parks may also remind us that details are not always to be found on the surface or in immediate view of the guest.

Intent

The idea of intent in design is akin how a novelist uses setting, characterisation, action and plot to create dramatic, believable and evocative effects in the reader. Designers may use combinations of process, time and detail to indicate to the guest that what has been offered in terms of the space's design is thoroughly planned out. Intent suggests care, which itself reflects back on perceptions that guests have in terms of authenticity.

Revision

While the designer may be excited with the final version of a themed or immersive environment, he or she should remember that spaces must change with the times and be in line with the desires of the guest. Thus, revision is key to authenticity. This is even more true as a changed space will remind the guest that behind the scenes a whole team of designers is dedicated to making sure that the space is never finalised and is always on the move.

Reflexive loops, design anxiety

The educational and entertaining Chautauqua tradition in the US is a form of performance in which skilled performers take on the dress, mannerisms, speech patterns and affect of famous historical, military, artistic figures from the past. As a form of reenactment, Chautauqua involves attention to detail, accuracy and believability and is thus tied up in the tricky politics of authenticity.

Chautauquans perform for large audiences and one of the most interesting aspects of their performances occurs ▶

PHOTO: ENDA CAVANAGH

during the question and answer session. The performers first take questions from the audience while in character and then later drop their character and answer questions as the performer. During a performance as Thomas Jefferson, for example, the audience would ask the former US president how he justified owning slaves; following this the audience would then interact with the performer out of character and discuss this issue of slavery. What makes this aspect of Chautauqua significant is the sense of the "reflexive loop" that it provides for both the performer and the audience. Very simply, a reflexive loop implies that one think about the thing at hand (very deeply) and then alter his or her view of it based on that reflection.

In terms of themed and immersive spaces, reflexive approaches have a key role to play. Some years ago, I heard a wonderful presentation by members of design firm WATG who were working on a new resort project in Luxor, Egypt. The most telling part of their presentation was when the designers fully admitted that in designing their new vision for Luxor they had to consider what had come before—most notably, the versions of Egypt and the Luxor that are known due to the Luxor hotel and casino in Las Vegas.

Visitor centres at big brands – like the Guinness Storehouse – are leading the way in authentic experience design

Such openness, honesty and reflection on the design of themed and immersive spaces suggest a certain sense of anxiety that accompanies the quest for authenticity in architecture and design.

Addressing the challenges of different perceptions of authenticity in themed and immersive spaces

1 **Openness:** The Italian writer Umberto Eco once spoke of the idea of an open work as one whose meanings are left open to individual interpretation. Openness has a strong role in creating authentic themed and immersive spaces. Instead of closing off meaning in the design of a space, the designer may focus on open-ended works or even works that will change and evolve with the times and guests' needs.

2 **Feedback:** Another important facet of authentic spaces in terms of the guests' needs relates to the ability of a space (and its designers and operators) to receive constant feedback about that space. Nina Simon and others in the Museum 2.0 movement have been especially concerned with creating experiences within museums and interpretive centres that are more open to the needs and desires of the guest. Such ideas remind designers and operators to remain vigilant in terms of what the guest desires from the space.

3 **Experimentation:** The traditions of many art, architecture and design movements illustrate the importance of experimentation in terms of authenticity. Too often, sometimes in response to social critics, designers of themed and immersive spaces are focused on reproducing expectations instead of cultivating experimentation. When we think of authentic spaces through the idea of means and not ends – process, not final product – we imagine new forms of creativity and aesthetic experimentation resulting in spaces that guests truly enjoy.

The anxiety here is the realisation that themed and immersive spaces do not exist in a vacuum. They are bound up in the many versions, visions, interpretations that have come before the current project in terms of other designs and realisations, will come in the present as the imagined space is realised and used by guests, and will be found in the future in which that space is altered and in which other spaces – perhaps copies or new versions of it – will emerge.

Authenticity and philosophy

In these contexts of design, we see that authenticity is much more than a simple matter of sorting out originals and copies and we note additional ways in which philosophers have considered authenticity. German philosopher Friedrich Nietzsche, for example, viewed an authentic person as one not afraid to reflect on his or her deepest anxieties of life. Similarly, the French existentialist philosopher Jean-Paul Sartre offered that authenticity related to the responsibility that one accepts for his or her existence.

We also find an interesting point of connection to the work of German philosopher Edmund Husserl who spoke of authenticity in reference to a community of love or *Liebesgemeinschaft*. Such a community would, says Husserl, reflect common language, values and important forms of empathy. Perhaps the anxieties of conscious design could be tempered with the realisation that the future discussions of authenticity in themed and immersive spaces may include more communal, participatory and critical engagements by designers, guests and social critics. ●

Scott A Lukas is a researcher, anthropologist and author who specialises in immersive worlds, theming and cultural remaking.

 ©CYBERTREK 2017

EUROPE & MIDDLE EAST

TEA SATE

STORYTELLING
ARCHITECTURE
TECHNOLOGY
EXPERIENCE

Cultural and Historic Futures

Making the stories of the past relevant for future generations

Thursday & Friday, May 4th–5th, 2017

8:30AM – 5:00PM National Motor Museum, Beaulieu

SATE returns to Europe and in full SATE style!

The conference will feature speakers from across the industry sharing unique perspectives on questions including:

- How do great museums and historic houses best tell their stories?
- Should we integrate the experience into the architectural space or re-invent it in a new visitor attraction?
- What unique challenges do theme parks face in a culturally-rich visitor attraction landscape?
- What part do technology and new story-telling techniques play in attracting new audiences?

SATE will use Storytelling + Architecture + Technology = Experience to explore how all the elements that come together to create a truly great environment for guests can be applied to developing the future for cultural visitor attractions.

For more information and to book tickets visit our events page at **teaconnect.org**

PRODUCT INNOVATION

Suppliers tell Attractions Management about their latest product, design and technology launches

For the latest supplier news and company information, visit
attractions-kit.net

Extraordinary Voyages Adventure Dining takes guests on a journey into space, under the sea, back in time – or on any fantasy experience

TPG's Edward Marks on combining dining, adventure and theme park thrills

Edward Marks, The Producers Group

The Producers Group (TPG) has unveiled a turnkey attraction that combines the dark ride with the dining room.

"It's an absolutely immersive dining attraction, and what I mean by that is you're on a ride eating dinner," says Edward Marks, co-CEO at TPG.

The Extraordinary Voyages Adventure Dining (EVAD) experience is centred around a highly themed space where guests buy their tickets, have a drink at the bar, browse in the shop and explore and interact with their surroundings.

"We chose a Jules Verne steampunk theme for the base station. On the ride, guests are taken into space, or on a time travel expedition, or an underwater expedition," says Marks.

The adventure itself takes place in a 80-seat dining vehicle, the Centurion, manufactured by coaster maker Premier Rides. Looking out of the "windows" passengers feel immersed in destination-inspired scenarios.

"It's like travelling on an aeroplane or a train ride. It doesn't exert high levels of movement apart from at very specific show moments which we control," Marks says.

No efforts have been spared in the design and creation of the ride and its theming, with wooden floors and furniture, copper finishing, seamlessly integrated technology, ambient lighting and complete attention to detail. "If you look in any direction, you are there. There are no clues to say you are anywhere else."

Scenes and themes can be customised. Passengers could be taken on a whistlestop tour of world cities, back in time or to any imagined – or branded – world. In this turnkey package, which was designed originally for mega-malls, everything is included except the kitchen.

ATTRACTIONS-KIT KEYWORD

TPG

 ©CYBERTREK 2017

Captioning and audiodescription made easy with STACK, says Matt Barton at 7thSense Design

Matt Barton, 7thSense Design's managing director, runs a scout group for children with special needs. He says he's taken the group to a number of theme parks and seen how inaccessible they can be.

"It's important to me that we develop our technologies in a way that can help improve inclusivity in the industry," says Barton. "At 7thSense, we were asked by a major client to develop a solution taking advantage of the latest AR technologies to provide closed captioning while maintaining the immersive nature of dark rides. In answer to this challenge, we have developed an Android application which could run on a tablet, phone or a pair of AR glasses, allowing us to display subtitles for content we're serving from the 7thSense Delta Media Server. We can also play audio files through that device."

Matt Barton, 7thSense Design

This means someone with hearing difficulties can wear a pair of smart glasses and captions will be overlaid on the screen as they move through a dark ride, or a person with seeing difficulties can enjoy audiodescription as they enjoy the experience. This is simply managed through the STACK show control framework in Delta.

"It works well on rides because the smart device always knows where the rider is in the experience and what scene they are watching, so the captioning and audio is kept in sync with the media," Barton says. "This could be extended in the future with location-based services that would know exactly where a guest is in a museum and display the right subtitles or audio track."

"Choice of language is built in to this system so you can also have two people sitting beside each other enjoying an experience in two different languages."

The STACK show control system can be used to send AR captions to a museum or park visitor's smart glasses

ATTRACTIONS-KIT KEYWORD

7THSENSE

MULTMEDIA/AV **CASE STUDY**

Kunstkraftwerk's Devon Miles chooses Optoma

A recent art installation at a power plant in Leipzig, Germany, used 55 short-throw Optoma Proscene projectors to incorporate contemporary art with the industrial structure, creating a hugely immersive experience where guests feel like they're moving through the artwork.

Devon Miles, who oversees immersive video art at Kunstkraftwerk, says the artist Gianfranco Ianuzzi warned him not to "lose a pixel".

"I knew that we had to preserve as many pixels as possible," Miles says. "Some parts of the video content are 17000 x 1920 pixels. We were heavily relying on the lens shift feature since the projectors were to be mounted at very steep angles to achieve the maximum projection area."

Devon Miles, Kunstkraftwerk

"We chose the EH503 because it offered the most complete set of features in that price range. The network feature especially came in handy and enabled us to change various parameters on all projectors at once."

Gianfranco Ianuzzi, the artist, did not want a single pixel to be lost

ATTRACTIONS-KIT KEYWORD

OPTOMA

Stephen Hamelin on using multiple engaging experiences to bring Vortex Splashpad to life

Steve Hamelin, Vortex

Wanda Xishuangbanna International Resort in China's Yunnan Province worked with Vortex Aquatic Structures International to design an enormous 30,000sq ft (2,787sqm) Splashpad – the largest Vortex Splashpad to date.

"When you're trying to make such a big space engaging, you need to work with a company that has a wide and varied product range to offer myriad experiences," says Stephen Hamelin, CEO at Vortex. "You also need a company that understands play experiences, and what attracts and engages the different age groups and abilities who will be using the area."

With 140 Vortex interactive features, the Splashpad boasts diverse waterplay environments and encourages a wide range of experiences to appeal to all ages, from toddlers to seniors. Gentle misting spray loops, tall leaves and ground sprays invite younger children and their families to play in a safe environment.

"Some areas have gentle water effecters with waterplay features that are lower to the ground for younger kids, while other areas have a more thrilling experience with cannons to shoot water and a Superwave which dumps water on the waiting kids below – usually something the older ones enjoy," says Hamelin. "There are also some cause and effect products, like our Cascades products. These enable kids to turn buckets and pull dams up and down to alter the course of the water. A lot of kids find this engaging."

Vortex supplied its largest Splashpad to date for a Wanda waterpark

ATTRACTIONS-KIT KEYWORD

VORTEX

Accesso's Steve Brown reveals Prism, the next-gen smart park wearable

There was an important starting point for Prism, says Steve Brown, Accesso CEO. Its predecessor, Qbot, was released back in 2007. How would they create a product that was relevant for 2017, an entire decade later?

"We realised we had a little bit of catching up to do in terms of our hardware, but we also realised some basic consumer factors to keep in mind," Brown says. "Nobody wants to wait in line. No one wants to worry about wallets or deal with cash in their pocket. We want easy access, without keys or complicated codes. And we live in a real-time society."

Accesso took its observations along with its clients' needs and developed Prism, a touchscreen wearable with messaging, park photography and virtual queuing capabilities.

"This is truly the new standard in smart park technology. It's a standalone device. It has extended battery life of up to 200 days. The device is brandable. It has a Gorilla GI Glass lens – it's not going to break. And it works with NFC, Bluetooth or RFID."

Guests simply swipe the touchscreen to take a place in a virtual queue, buy food from a kiosk, receive updates or promotional offers from the operator and manage their ride and park photography. Prism collects data on guest behaviour in real time, which can be used for marketing strategies and to gather feedback to improve guest experience.

Steve Brown, Accesso

Guests simply swipe the touchscreen to join a virtual queue

ATTRACTIONS-KIT KEYWORD

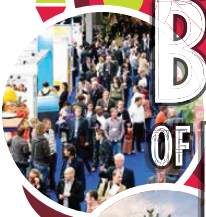
ACCESSO

 ©CYBERTREK 2017

EAS
Euro Attractions Show

IAAPA

WHERE THE BUSINESS OF FUN BEGINS



...AND LEISURE IS AT ITS BEST

THE INTERNATIONAL ASSOCIATION OF AMUSEMENT PARKS AND ATTRACTIONS PRESENTS

EURO ATTRACTIONS SHOW 2017

Messe Berlin Exhibition Center | **BERLIN, GERMANY**

CONFERENCE: 24–28 Sept. 2017 | **TRADE SHOW:** 26–28 Sept. 2017

Join us as the leaders of the leisure, attractions, tourism, and entertainment industries come together to showcase innovative products and services. Visit with more than 500 exhibitors on the trade show floor, learn industry best practices at 20+ education seminars, and network with 11,000 industry professionals.

REGISTER EARLY AND SAVE!

www.IAAPA.org/EAS | EMEA@IAAPA.org

Attractions MANAGEMENT DIRECTORY

ATTRACTIONS SHOW AND EXHIBITION

www.iaapa.org/eas

CREATIVE DESIGN AND BUILD

www.joravision.com

4D RIDES & ATTRACTIONS

www.trio-tech.com

CREATIVE DESIGN AND BUILD

Design Development | Graphics | Fit-Out | Interactives | Scenery | Sculpture | Model & Prop Making | Solid Surfacing | Joinery | Theming | Metalwork | Project Management | Engineering... and much more!

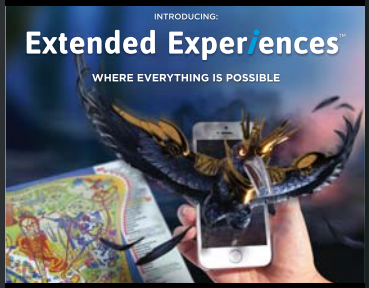
PARAGON CREATIVE

Europe's Largest Creative Design and Build Company

www.paragon-creative.co.uk

www.paragon-creative.co.uk

IMMERSIVE RIDES & ATTRACTIONS



www.holovis.com

VIRTUAL REALITY & 5D FILM

www.redraion.com

 ©CYBERTREK 2017

IAAPA Attractions Expo

IAAPA

JOIN THE

CREATION nation

Come together with your peers and be inspired at IAAPA Attractions Expo 2017 to infuse something fresh, bold, and unique for your attraction. Whether you are imagining an all-new ride, an operational transformation, or 21st-century marketing mix, the opportunities available in Orlando are only limited by your creativity.

2017

CONFERENCE: NOV. 13–17
TRADE SHOW: NOV. 14–17
ORLANDO, FL, US
www.IAAPA.org/IAAPAAttractionsExpo

REGISTRATION OPENS IN MAY.

EXPERIENCE
polin.com.tr
polinwaterparks
PolinWaterparks
THE EXPERIENCE