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SING SING PRISON

A museum
focused on
criminal justice
is in the works

STAR WARS: GALAXY'S EDGE

The Disney
Imagineers
behind landmark
development
reveal its secrets

ANTONI ALARCON

Barcelona
Zoo director
discusses its
new 'animalist'
approach

PARK ASTÉRIX

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still growing for
popular French
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Fighting for our future

We must unite and support industry leaders to lobby for the emergency funding our sectors need to shield us from the worst impacts of the coronavirus pandemic

As we slither down the pyramid of Maslow's famous hierarchy of needs, from the peaks of self-actualisation and the joys of creativity, spontaneity and self-fulfilment, to a focus on survival – food, shelter, water – questions hover in the air around the shape the industry will be in once we come crawling out of the other side of the pandemic.

Attractions represent one of the pinnacles of human existence, celebrating as they do our history, knowledge and culture and offering time to reflect or celebrate, to learn or to enjoy carefree time with loved ones.

But we are on the front line in the pandemic, stripped of revenue streams by the shutdowns and with no other substantial sources of income to replace this vital funding.

With such heavy infrastructure costs, many attractions may not survive. If they close, we will not only lose beloved places, but also precious people with rare and valuable skills, as teams scatter.

A world with fewer attractions and culture would be a lesser place and so we must fight and work together to keep our industry afloat in whatever ways we can.

This means powerful leadership to lobby governments to give the financial support the industry needs and calls for them to make charitable giving more tax-efficient to attract funds from high net worth individuals.

In the UK, Bernard Donoghue, director of the Association of Leading Visitor Attractions, has been leading the charge in partnership with industry body, The Museums Association. They have identified a partial solution and are working to raise £120m from the government to rescue the sector from the worst of the damage.

This had been ringfenced for a Festival of Culture in 2022, but as Donoghue told the *Guardian*, if we don't support the sector now, there will be no culture to celebrate.



ALVA director, Bernard Donoghue, is fighting for support

We need powerful leadership to lobby governments to give the industry the financial support it needs

In the US, the Alliance of American Museums is seeking US\$4 billion in coronavirus relief from the government for emergency assistance up to June. The amount gives an indication of the scale of the challenge: AMM says museums in the US are losing US\$33m a day, and that's not counting the impact on the private sector.

We must preserve the heart of what we do in the best ways we can, so we're in a position to rebuild when the time comes. This is the time for our trade associations to stand up for the sector. We must back them to the hilt.

Liz Terry, editor
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Attractions People

“Telling a compelling story at a campfire still has potency, but now it can be enhanced toward greater audience and visitor engagement”

Michael Blau, president, Themed Entertainment Association

In November, Adirondack Studios principal Michael Blau was officially installed as the new International Board President of the Themed Entertainment Association (TEA).

Part of the organization for a number of years, Blau was first elected to the TEA Eastern North America Division, where he served for three years as VP of the Eastern Division Board followed by three years on the TEA International Board. Most recently as vice president.

According to Blau – who holds a Master of Fine Arts degree in Theatre and Technical Design from Syracuse University and has a theatre background – his approach to themed entertainment comes “through the lens of theatre”.

“Theatre requires knowledge of many crafts and trades,” he explains. “From scenic arts to sound design, stage management to performing, all working toward creating an art piece that is financially sound but most importantly engages an audience toward an experience they have never had before.”

Adirondack Studios focuses on design in story and guest experience. Joining in 2003 and taking up his current position in November 2017, Blau leads the business side of the company, helping to produce immersive and one-of-a-kind experiences through existing client relationships, growth in targeted markets and new business ventures.

“I’ve been extremely fortunate in the experiences and especially the mentors that have helped guide my education and



Blau is also vice president of business development at Adirondack Studios

career,” he says. “Lessons in business success came from working with my father who started a successful business that was brilliant at serving clients, and from the founding owners and my current partners at Adirondack Studios who taught me to always deliver what you say you will, then exceed those expectations.”

Expanding horizons

Blau takes up his presidency with the TEA already performing strongly.

“Two areas in which TEA particularly excels: educating our members and providing unique opportunities for members to network,” he says. “Many great project teams – and great projects – have emerged from these opportunities. These activities also have a positive influence on the industry at large by improving dialogue, celebrating excellence and facilitating the exchange of information, wisdom and best practices. We do this with a wide range of events from regional mixers to global conferences, participation in trade forums and with various resources such as the annual TEA/AECOM Theme Index and through our video archive.”

While things are running smoothly at TEA headquarters, Blau would like to see it expand its reach even further: “Our board members and staff continually look for innovative ways to better serve our community, and as such, the TEA will continue to expand its education and networking opportunities for its members.”

Business is booming

The themed entertainment industry is currently enjoying a boom period, with immersion the trend on everyone’s lips. For the TEA’s members, this means significant growth in many areas.

“Creators, producers and developers around the world long for unique life-changing experiences,” says Blau.

“This is a desire with a long history but today our industry has new ways to fulfil it – a sophistication through technology, storytelling and design has developed. In



Blau succeeds
Michael Mercadante
of Main Street Design

simple terms, the importance of telling a compelling story at a campfire still has potency, but now it can be enhanced and elevated toward greater audience and visitor engagement. We know more and better ways to engage people. Doing so leads to greater expectations and knowledge around the world. As the themed entertainment sector expands, it

fosters new innovation and perspectives from different cultures and regions."

With themed entertainment and the attractions industry, in general, enjoying this strong period, it's an exciting time for the TEA: "Innovation is extending to many new venues and markets that are logical extensions to our industry," says Blau.

"Our Thea Award-honoured projects continue to illustrate outstanding achievement. The process of creating unique experiences in which audiences can become emotionally engaged is changing around the world. I fall back to my theatre career where the important goal was to have an audience leap

into a story emotionally. That engagement excites me when I see it in any project and I enjoy seeing a new project that builds upon the last great one."

Blau succeeds Main Street Design's Michael Mercadante, who set a solid foundation and established important pillars of the strategy for the TEA, while acting as its president.

"Michael has done a terrific job in getting the TEA to better understand its role in the industry and the world by establishing clear strategies toward even better service," says Blau speaking of his predecessor. "We'll build upon those principles to serve our members better."





Brian Morrow has more than 22 years and US\$1.2bn worth of entertainment design experience

“You can see experiences morphing as museums become more like theme parks and zoos become more like beacons of hope for the future of the planet”

Brian Morrow
creative principal,
B Morrow Productions

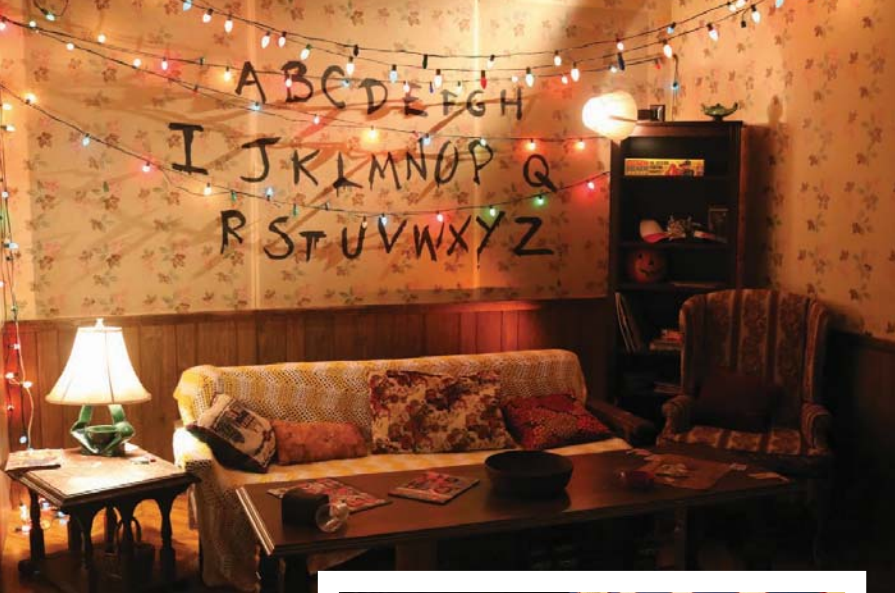
Brian Morrow is a well-respected name within the visitor attractions industry. Starting out on the construction of Disney's Animal Kingdom in 1999, Morrow then moved over to the zoo sector, working on the construction and design of a major expansion for Tampa Zoo. From there, he joined SeaWorld Entertainment, where he would spend more than a decade working his way up to the position of vice president of theme park experience design, overseeing creative development for all 12 of the operator's theme parks.

"I got to build incredible things during my time at SeaWorld," says Morrow. "We masterplanned SeaWorld Abu Dhabi, built the Aquatica waterparks and all the big attractions in between. There was a wide breadth of creative and theme park development opportunities there."

Leaving the nest

In 2018, Morrow left SeaWorld, choosing to carve his own path within the industry.

"I got to experience all the turmoil of the organisation from 2013 onwards but I didn't leave because of that," he says. "I left because I wasn't being challenged enough. I started repeating myself creatively and thought if I'm not really here trying to reinvent every single moment



BMP created an immersive photo and video experience themed to Netflix's *Stranger Things*

and opportunity, then somebody else should probably do it.

"When I was there we did some highly innovative stuff. It was really a creative choice. Creating my own space allowed me to work with who I wanted to work with – my friends, my colleagues and folks that I admire the work ethics of."

Taking the lessons he'd learned in running creative studios for zoos and theme parks, Morrow set up his own studio and design house, with an ethic and a focus on the talents working there.

"I developed B Morrow Productions around the idea that it harbours, elevates and celebrates the talent of the people," he explains. "Within the industry, I've seen that it's not talent forwards. The policies of hiring and management don't really fit creative minds. The industry tries to make the same policies that apply to accountants apply to everyone. I'm very proud of the culture and the process that's been developed within my organisation."

As part of the creation of this culture of stimulation, Morrow profit shares all projects with everyone, including freelance



talent. He also lets his creative team work how, and when, they want to work.

"Everyone gets part of the profit, everyone is part of the team and that way we move faster and that makes it very competitive," he says.

"We offer unlimited holidays because I hire people that I know are going to work hard. We also offer highly flexible work schedules because our work is very flexible. Some people like to work at two in the morning, some like to work at one in the afternoon. Having flexible work schedules that work around people's personal habits or their life requirements is a key part of the culture we've

created. Versus a 9 to 5 job, allowing these flexible conditions is something I'm really proud of."

The work

Working with a number of major names in the industry, such as Universal, Europa Park and SeaWorld, in the two years since the company's foundation, Morrow has set his sights on creating projects that the whole family can enjoy.

"The industry is moving in a couple of different directions," he explains. "The first is big IP-driven lands. The other is a more personal, inter-connected, playful, engaging experience. That's what we're focusing on. ▶

PEOPLE



BMP works in a variety of sectors, counting among its clients theme parks, water parks, dark rides, zoos, festivals, retail and resorts

"Constructing a themed environment that allows parents and their multi-generational families permission to play and engage with each other without necessarily having a ride system to do it is the goal.

"We're working on a lot of physical exploration, interactivity and play, combined together and wrapped around certain story worlds we've created for various clients. Every theme park tended to have a play experience or a playground – those are becoming more engaging, still with play, but much more engaging for the whole family, not just the kids."

Working with IP

With his new company, Morrow has also been given the chance to work with a number of high end IPs.

A recent example of this work came at Universal's Cabana Bay Hotel, where the team created a *Stranger Things* pop-up experience featuring the Byers' iconic living-room and the Scoops Ahoy ice cream shop.

"We knew the IP so it was easy to follow and make awesome and deliver it," says Morrow. "Guests got to be in the environment but also control it by activating a secret switch that allowed the upside-down to come into the room."

"It had huge value to the client and the guests loved it. 27,000 people went through in the month and a half that it was open. We love seeing tonnes of people walk into our designs."

Morrow's portfolio often includes cross-discipline projects, something he sees as a key trend as the popularity of hybrid attractions continues to grow.

"I get a lot of varied types of experiences that allows theme park, educational, play and emotional design to be applied to other industries," he says. "You can



see experiences morphing as museums become more like theme parks and zoos become more like beacons of hope for the future of the planet. These are really interesting moments in these industries to design and experiment inside of.

"We're also adding some new clients to our roster in the cruise category, which is an industry I'm fascinated with. Crossing over with that is something that excites me. As they develop their experiences for their guests, it's becoming more unique and special, which is right where we want to be."

Striking gold

It's an exciting time in the theme park industry. With a multitude of major projects, such as Universal's Epic Universe and Disney's major and ongoing expansion of its parks currently taking place. Morrow sees this as the perfect storm, something he believes will lead to a "second golden era" for theme parks.

"Those ingredients of the right IP the right idea and the right scale and authenticity level is a trend you're going to continue to see moving forward," he says. "There's great success happening when done right."

While immersive experiences might be the industry's current hot topic, a

technology that's been on the tip of everyone's tongue in recent years might already be done, believes Morrow.

"Virtual reality has had its day," he says. "It was rushed to that in our industry and never really had its right time or right development time to be executed well."

"I think you're going to see that come back in a different form and not be called VR. There's a space for that in our industry but I don't think it's ever going to replace anything. It will become supplemental to what you're experiencing."

The key to this golden era, however, believes Morrow, is the development of attractions beyond just rides.

"There's a big need for the development of experiences that everyone can do together," he says. "There's a diversification of experiences and theme parks are starting to move outside of purely offering rides. You can already see this at the big parks where the land is the attraction. It's not just getting to the ride anymore, it's going through the space and discovering it. Those discovery moments and those exploration moments are a key area for our work. Entertainment is crossing over from shows into the experience. It's trickling out of Broadway and getting into our theme parks."

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“We’re bringing new energy to a 25-year-old company and finding the next step and evolution of that”

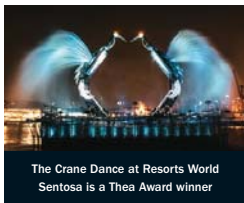
Scott Ault managing partner, Railton Entertainment Design

Two of the most prominent names in themed entertainment have joined forces to form a new company dedicated to the craft.

Railton Entertainment Design (RED) is a partnership between Jeremy Railton and Scott Ault, with the industry veterans sharing more than 60 years' worth of combined experience. A merger of Railton's Entertainment Design Corporation (EDC) and Ault's Checkmate Development Group, the new company was formed in November.

“For both of us, it expands our capabilities,” says Ault. “We’re now able to take on projects that we previously wouldn’t have been able to consider because of the depth of experience that the two of us bring to the table. We’re bringing new energy to a 25-year-old company and finding the next step and evolution of that.”

Prior to establishing RED, Ault worked in a number of roles for a number of companies, including a 19-year stint at BRC Imagination Arts where he was COO and a run in his early career with Disney as an Imagineer. Joining Disney in 1987, Ault became the youngest-ever show



producer at the time. He has also worked with brands such as 20th Century Fox, Sony, Dreamworks, Marvel Entertainment, Lionsgate, BBC Worldwide, Aardman Animation and Nickelodeon.

For Railton, he has a career spanning theatre, dance, film, TV award shows, live concerts, Olympic ceremonies, themed attractions and architecture.

“Jeremy is a multi-time Emmy Award winner and a TEA Life Time Award winner,” says Ault. “I’ve known him since 1994 when I was producing an NFL Experience. I hired him to design it, so we’ve been in each other’s orbit for a long time.”

Between them, the duo has a wealth of major projects in their portfolios. Railton created staged performances for the opening and closing ceremonies at the 2002 Winter Olympics and is responsible for the Crane Dance at Resorts World Sentosa – a spectacle which sees two 90ft (27.4m) high animatronic robots produce a spectacular light, water and sound show. Ault has worked on a number of highly successful projects, including more than six theme parks, four World Expo Pavilions and 12 museums.

“This is a merger of two existing entities,” says Ault. “I’m now managing partner and Jeremy is the senior partner. I’m handling business development, day-to-day operation, organisation and project management, while Jeremy is senior creative.”

“The most recent EDC project was for Great Wolf, which totalled four installations in 2019. There is a possibility of four more with them depending on a number of factors. Since we’ve announced the partnership I’ve presented about two proposals a week. The interest has been phenomenal. It’s been a bit of a whirlwind. We’re very excited.” ●

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UK

Works starts on Jodrell Bank development

Construction has begun on a Hassell-designed grass-covered dome pavilion at Jodrell Bank to help celebrate the site's heritage and the beginnings of radio astronomy when it opens in 2021.

Jodrell Bank is located in Cheshire, UK, and is home to one of the world's largest and most powerful radio telescopes, the Lovell Telescope, which is used to explore deep space.

The pavilion, built for the University of Manchester, will house exhibition space and a 150-seat auditorium, with visitors exiting via a café and a circular courtyard.

Its design is partly inspired by sculptures, structures and natural landforms from around the world, including

Newgrange in Ireland and Fuji Kindergarten in Tokyo, and is aimed at being energy efficient and sympathetic to its natural surroundings, blending into the landscape.

The circular shape of the pavilion and its 76m (25ft) diameter reference the shape and size of the Lovell Telescope dish and the design is aimed, in part, at helping to protect and enhance views across the Jodrell Bank site and the arboretum in which it is situated.

"The completion of the First Light Pavilion will mark a new era for Jodrell Bank, introducing new generations to the history of the site and radio astronomy," said Julian Gitsham, Hassell principal.

[READ MORE ONLINE](#)



■ The pavilion will house exhibit space and a 150-seat auditorium



“

The completion of the First Light Pavilion will mark a new era for Jodrell Bank

Julian Gitsham

WORLDWIDE

ASTC launches gender equity scheme for science centres

“

STEM is everywhere and is essential to the success of all fields from entertainment to business. There's no better time to highlight female professional role models to activate a culture shift among young girls

ASTC

The Association of Science and Technology Centers (ASTC) has launched a new project promoting gender equity in science museums.

Working alongside the National Girls Collaborative Project (NGCP), ASTC has launched IF/THEN, part of a national initiative to advance women in STEM subjects.

The ASTC is introducing a number of resources, including the rollout of a gender toolkit, which will be used to help science centres collect data on their visual representation of gender. Using this resource, institutions can identify improvement targets and better determine resources needed for growth.



■ The first funding round will open in March

After using the Toolkit, ASTC's members will be eligible to apply for IF/THEN grants, with funding used to advance a project that addresses gender equity in their museum.

There will be two allocated funding rounds, with the first to open in March.

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SPACE TOURISM

NASA plans International Space Station hotel

NASA has chosen a team led by Axiom Space, with design by Philippe Starck, to create a commercial space station that will host professional astronauts and private explorers.

The Axiom-led team will be granted access to a node of the International Space Station (ISS) to which it will be able to attach for construction a new habitable pod that could ultimately replace the ISS.

The Axiom Segment will feature research and manufacturing facilities, crew quarters and a "large-windowed Earth observatory" through which visitors will be able to look back at their home planet.

According to Axiom, it will increase the usable and habitable space of the ISS

and allow some work already being carried out to be gradually transferred across to prevent interruptions when the station is ultimately retired.

When that time comes, the Axiom Segment will be detached for use as an independent, free-flying space station that will be internationally available for commercial use and will have been built at a fraction of the cost of ISS.

"A space station is ruled by a fundamental law: zero gravity," said Starck. "Life in space is a multi-directional freedom. My vision is to create a comfortable egg, where walls are soft and in harmony with the values of movements of the human body in zero gravity."

[READ MORE ONLINE](#)



■ The development opens up the ISS for commercial opportunities



A space station is ruled by a fundamental law: zero gravity
Philippe Starck

SAUDI ARABIA

Saudi 'giga project' starts ground preparation work



Qiddiya will offer activities based around five cornerstones: Sports & Wellness; Nature & Environment; Parks & Attractions; Motion & Mobility; and Arts & Culture

Construction at Qiddiya – the site earmarked as Saudi Arabia's future "capital of entertainment, sports and the arts" – has moved into a new phase, with the appointment of Saudi road construction company Abdul Ali Al-Ajmi to undertake a 12-month ground preparation project.

The work will involve landscaping an area of more than 4sq km (1.54sq mi). This land will become the Resort Core and City Centre of the overall 334sq km (208sq m) site.

Located near to Riyadh, Qiddiya will offer activities based around five cornerstones: Sports & Wellness; Nature & Environment; Parks & Attractions; Motion & Mobility; and Arts & Culture.



■ The first phase is due to open in 2023

There will be a Six Flags theme park, sports arenas suitable for international competitions, academies for sports and the arts, concert and entertainment venues, a racetrack for motorsport, outdoor and adventure activities, and natural, environmental, historical, cultural and educational activities.

[READ MORE ONLINE](#)

ITALY

Gardaland announces Legoland Water Park opening date and new attractions

Europe's first Legoland Water Park is set to open at Gardaland later this year, with the new attraction set to become the first Legoland waterpark to open in a non-Legoland destination.

Opening 28 May, the new waterpark will be home to several different themed lands.

Dedicated to play and creativity, the Lego Creation Island will offer 'hours of guaranteed building fun', with thousands of Duplo and Lego bricks for guests to play with, while Beach Party will feature play areas and water slides, as well as water cannons.

"There will be themed areas with lots of colourful water slides, as well as



■ Gardaland will be the first non-Lego park to gain a Lego attraction

a creative area where children can discover the fun of building," said Luca Marigo, marketing director at Gardaland.

"The waterpark will have so many attractions that visitors will be thrilled by."

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“
There will be themed areas with lots of colourful water slides

Luca Marigo

INDUSTRY OPINION

The power of storytelling

Aleatha Ezra, WWA

At the World Waterpark Association's annual show held last



October, a topic that came up a number of times was the role of storytelling in the development of new waterpark facilities.

Thanks to advances in ride design and manufacturing technology, more waterparks and their attractions are being designed to complement a more immersive style of storytelling that touches rides, entrances, in-park signage, theming, marketing and much more. This level of storytelling integration can drive greater attendance and build stronger brand loyalty in consumers who crave a memorable experience to share with family and friends.

Today, guests want to feel a connection to the places they visit for leisure entertainment. They want to spend their money and time enjoying something that appeals to and reflects the complexities of the human experience. This is why storytelling has become so important to those who are designing new attractions.

When it comes to selecting a storyline for your next development, remember you're only limited by your own imagination. By embracing the concept of storytelling in the early phases, you will lay a solid foundation for a waterpark brand that holds broad appeal to hundreds of thousands of guests each year.

USA

Texas Kalahari Water Park scheduled for November 2020 opening



The resort will offer almost 1,000 guest rooms and suites

A new US\$550m African-themed water park and resort from Kalahari Resorts and Conventions is due to open in Round Rock, Texas, in November 2020.

With 1.5 million sq ft (457,000sq m) of resort space, Kalahari said the resort would be its largest yet, and would also be America's largest indoor water park, at 223,000sq ft (68,000sq m).

Facilities at the venue include Tom Foolery's Adventure Park – an 80,000sq ft (24,000sq m)

site with thrill rides, ropes course, climbing walls, indoor zipline, bowling, laser tag and mini-golf – a massive arcade with more than 250 games, three outdoor pools spanning three acres and 50,000sq ft (15,000sq m) of outdoor event space.

The resort will offer almost 1,000 guest rooms and suites, a 200,000sq ft (61,000sq m) convention centre, a salon and spa and extensive retail and food and beverage options.

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CHINA

Disney predicts US\$280m coronavirus hit

Disney has predicted that the coronavirus outbreak will cost its parks division an estimated US\$280m after the operator shut down both its Shanghai and Hong Kong resorts as a result of the quickly-spreading virus.

Coronavirus, which originated in Wuhan, has forced the closure of a large number of attractions in China, as authorities try to halt the spread of the outbreak. The country has more than 75,000 confirmed cases in China alone, with 25 other countries also reporting infected patients.

The closures are directly affecting a quarter in which Disney would typically see strong attendance in its Asian parks, due to the timing of the Chinese New Year. Hong

Kong has also struggled with ongoing issues, as civil unrest in the region affects visitation.

"At Shanghai Disney Resort, we estimate the closure of the park could have an adverse impact on Q2 operating income of approximately US\$135m," said Christine McCarthy, Disney's chief financial officer.

"We were already seeing a significant decrease in visitation to Hong Kong, so in aggregate, we estimate these two factors could result in a decline in Hong Kong Disneyland's operating income of about US\$145m for Q2."

The magnitude of the impact is highly variable, depending on how long the outbreak lasts, with Disney's loss estimate based on a two-month period.

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■ The closures will have a heavy affect on Disney numbers



The recent closure of our parks will negatively impact second quarter and full-year result

Christine McCarthy

DUBAI

DXB implements cost-cutting measures at theme parks



Our focus is now on delivering profitability on a full-year basis

Mohamed Almulalla

DXB Entertainment, which runs the Legoland, Bollywood and Motiongate theme parks in Dubai, says it sees encouraging signs in its latest financial results, despite reduced attendances in 2019 compared to 2018.

The fourth quarter of 2019 saw the company make its first-ever quarterly profit before earnings of AED2m (US\$540,000), while earnings for the full year were a loss of AED149m (US\$40.6m) – a 38 per cent improvement on 2018.

"Our efficiency programme is delivering good results, with year-on-year savings in operating costs of AED172m (US\$46.8m, €42.9m, £36.2m) in financial year 2019, with further savings to be realised in



■ Legoland Dubai is part of the DXB portfolio

2020," said Mohamed Almulalla, CEO and managing director of DXB Entertainment.

"Our focus is now on delivering profitability on a full-year basis by achieving growth, specifically through initiatives to drive visitation from our core international markets and through hotel strategy."

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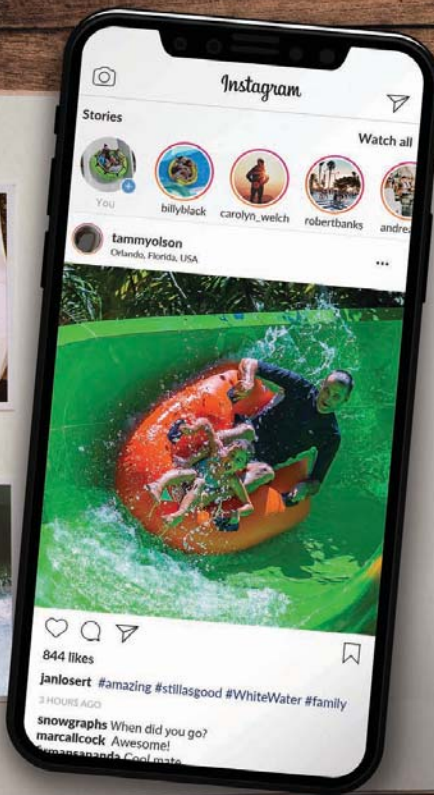
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USA

Academy Museum to open doors in December

Hollywood icon Tom Hanks has announced the long-awaited opening of the Academy Museum of Motion Pictures, with the iconic addition to Hollywood set to open on 14 December 2020.

The 300,000sq ft (91,440sq m), six-floor facility, which has views of the Hollywood Hills and iconic Hollywood sign, has been designed by architect Renzo Piano, and features a 1,000-seat theatre named after David Geffen in a distinctive spherical building.

It will be the first large-scale museum in the US to be entirely dedicated to the art, science, craft, business and history of film, with 50,000sq ft (15,240sq m) of galleries, theatres, project

spaces, an outdoor plaza, rooftop terrace, education studio, event spaces, a restaurant and a shop.

The Academy reportedly has a collection of over 12 million photographs, 190,000 moving image items, 80,000 screenplays, 61,000 posters and 104,000 pieces of production art to draw from in putting together its displays. Among the key objects that could be shown are Dorothy's slippers from *The Wizard of Oz* and the shark mold from *Jaws*.

The museum has cost at least US\$388m, which could rise to around US\$450m with the museum working on a new bond offering of US\$100m. Disney's Bob Iger has overseen the fund-raising campaign.

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■ Renzo Piano is behind the museum's design



It will be the first large-scale museum in the US to be entirely dedicated to the art, science, craft, business and history of film

EGYPT

Grand Egyptian Museum set for end of year launch



Around 90 per cent of construction work and all of the planned artefact transfers to the site are now complete

The long-awaited Grand Egyptian Museum has finally been given an opening date, with one of the year's biggest cultural openings expected to draw more than five million visitors a year when it opens in Q4.

The project, which started construction in 2006, was delayed by the 2011 revolution in Egypt. Now set for the final quarter of 2020, the Egyptian government expects the "mega museum" in Giza to become one of the country's largest tourism draws.

The museum will show all of Tutankhamun's burial treasures in the same place for the first time, including 2,000 artefacts that have never been shown before.



■ The museum is expected to draw five million visitors

Around 90 per cent of construction work and artefact transfers are now complete.

The 480,000sq m (5,200,000sq ft) site will also include entertainment hubs, including restaurants and theatres, a conference hall and a playground. Hotels in the area are also undergoing renovation.

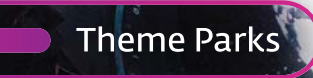
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ISRAEL

AR brings Jerusalem's history to life

The Tower of David – Museum of the History of Jerusalem has started offering "mixed and augmented reality" tours that allow visitors to experience key moments from Jerusalem's history via digital technology.

The museum's Innovation Lab has worked with tech start-up MARS (Mixed and Augmented Reality) and the Jerusalem Development Authority to develop the experience, which is delivered by tablets and headphones that visitors receive at the beginning of the tour.

Visitors can walk around Jerusalem in the time of King David, witness the legendary biblical fight between David and Goliath, experience the Great Revolt against the Romans and the Six Day War

of 1967. The experience ends with a chance to take a selfie with the virtual King David.

Museum director Eilat Lieber said the institution had been looking for innovative and engaging ways to make the museum and the history of Jerusalem more accessible for some time.

"The impressive archeological garden, the exhibition halls, the 360-degree panoramic view over the city, the 'Kishle' which was built in 1834, pools from the time of Herod, secret passages and rooftops of various heights – all these make the Tower of David an excellent test site for innovative technology, which digitally and interactively enriches the experience of the visitor," she said.

[READ MORE ONLINE](#)



■ Visitors can walk around Jerusalem in the time of King David



Technology digitally and interactively enriches the experience of the visitor

Eilat Lieber

UK

Heritage Great Britain invests in hybrid Snowdon locomotives



We're proud of our new Hybrid Diesel Locomotives

Mike Robertshaw

Heritage Great Britain (HGB) has announced plans to invest £1.1m (US\$1.4m, €1.3m) in hybrid diesel locomotives at its Snowdon Mountain Railway attraction in Snowdonia, Wales, in a bid to reduce its carbon footprint.

The new locomotives, developed by Clayton Equipment, are expected to come into service in May and will run alongside the traditional steam and diesel trains. They will be driven by maintenance-free electric motors and powered by a traction battery and a diesel generator. During the train's descent, the diesel generator will be turned off to prepare the engine for the ascending journey, whilst service braking recharges the battery.



■ The new locomotives will be more fuel-efficient

"We're proud of our new Hybrid Diesel Locomotives," said Mike Robertshaw, senior engineering manager at Snowdon Mountain Railway. "This is a significant investment in new technology which will not only allow us to carry more passengers but also allow us to help the environment."

[READ MORE ONLINE](#)

USA

SeaWorld announces plan to end dolphin 'surfing' shows

Following on from its 2017 decision to end its orca stunt shows in favour of an educational alternative, SeaWorld has announced it will cease the practice of trainers riding on dolphins in its shows.

PETA is a shareholder in SeaWorld, giving it the opportunity to apply pressure from within the organisation. It called for SeaWorld to cease using dolphins for "demeaning circus-style shows" in a proposal last year but this is only a partial victory for the group, which would like to see an end to cetaceans in tanks.

"As part of its transition to more education-focused animal presentations, the company has already made



■ Trainers still stand on dolphins' rostrums as part of the show at SeaWorld San Diego – but not for much longer

the decision to phase out the two behaviours referred to in the proposal," said SeaWorld, adding that trainers no longer surf on dolphins' backs in any of its locations, and will cease shows with trainers standing on dolphins' snouts.

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The company has already made the decision to phase out the two behaviours referred to in the proposal

USA

Minnesota Zoo's US\$22m plan shows focus on outdoor pursuits



They like the idea that we are redeploying and modernising an asset that is right now unused

Charlene Brine

A US\$22m (£19.8m, £16.9m) "Treetop Trail" built on a former monorail track, a nature-based preschool, and camping facilities are among reported changes that Minnesota Zoo in Apple Valley, US, is considering.

The plans have been developed and presented to the board by director and president John Frawley, who joined the zoo in 2016. They are notable for their focus on outdoor pursuits as a means to attract visitors, rather than new or exotic animal exhibits.

Key parts of the project include the aforementioned Treetop Trail, which at 1.3mi long would likely be the longest elevated trail loop in the US, a rock-climbing facility within a vacant IMAX theatre, paved trails, a lodge and several camping options.

"The Treetop Trail is what's got everybody buzzing," Charlene Briner, vice chairwoman of the zoo board, is quoted as saying. "They like the idea that we are redeploying and modernising an asset that is right now unused."

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INDUSTRY OPINION

Zoos respond to Australian bushfires

Gavrielle Kirk-Cohen, WAZA director of communications



The recent Australian

Bushfires have had a devastating impact on wildlife with experts stating more than a billion animals have died, with some species facing extinction as a result.

The Zoo and Aquarium Association Australasia (ZAA) has been formally coordinating a phased response for immediate support for affected wildlife, as well as the longer-term requirements of wildlife and habitat rehabilitation, rewilding and population sustainability.

The association is mobilising its Wildlife Conservation Fund to support a large-scale, coordinated response of zoos, wildlife parks and aquariums. Zoos are uniquely positioned to help wildlife and ZAA members are playing a crucial role in the extensive short and long-term wildlife rescue, rehabilitation and recovery work ahead. They're also experts in managing breeding programmes, so they'll be able to use this expertise to support or establish government-endorsed breed-for-release activities, which will supplement threatened populations.

The support from the international community has also been truly remarkable. WAZA members around the world have generously donated funds, set up fundraising campaigns and sent professionals to Australia to treat or search for wildlife.

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USA

Disney reveals Spider-Man stunt robot

Disney's new *Spider-Man* attraction, coming to Disney's California Adventure later this year, will feature a world-first, with an animatronic version of the web-slinger set to perform live-action stunts in the new Avengers Campus.

Footage shows a fully-costumed *Spider-Man* performing acrobatic high-flying stunts, with Disney promising that visitors will get a glimpse of him "swinging above the rooftops of Avengers Campus".

Disney first unveiled the technology in July 2018, showcasing an autonomous robotic stunt double capable of incredible feats without the danger of using a real stuntman.

Called Stuntronics, the animatronic robot

can control and alter its pose in mid-air, as well as guaranteeing the completion of sophisticated aerial stunts with precision every time.

Typically, animatronic figures only run through a specific pre-built cycle of movements and remain in a fixed spot. However, the Stuntronics figure is different from other models, as it is significantly larger, weighing 90 pounds and assuming a human form. With a *Spider-Man* skin, it creates a version of the Marvel superhero as true and realistic to the character as possible.

Avengers Campus will be home to a number of experiences when it opens in Q3, including a *Spider-Man*-themed ride.

[READ MORE ONLINE](#)



■ An animatronic Spider-Man will swing high above guests' heads

“

The animatronic robot can control and alter its pose in mid-air, as well as guaranteeing the completion of sophisticated aerial stunts with precision every time

WORLDWIDE

Google highlights climate change through 3D heritage collection

“

More than 50 online exhibitions, two augmented reality "pocket galleries" and 25 detailed 3D models have been produced through the project

Google Arts & Culture has created a new online collection of immersive 3D digital imagery that shines a light on the effects of climate change on five heritage landmarks around the world.

The Heritage on the Edge project saw Google work with the International Council on Monuments and Sites and 3D scanning company CyArk, which collected data on sites in Easter Island (Rapa Nui), Tanzania (Kilwa Kisiwani), Scotland (Old and New Towns of Edinburgh), Bangladesh (Mosque City of Bagerhat), and Peru (Ancient City of Chan Chan).

Data was captured by CyArk through photogrammetry, 3D scanning, drone video capture and interviews with local experts.



■ Easter Island is among the sites featured

More than 50 online exhibitions, two AR "pocket galleries" and 25 3D models have been produced through the project, freely available to all on the Google Cloud Platform. Heritage on the Edge combines 3D models, immersive Street View tours, AR and hours of video content.

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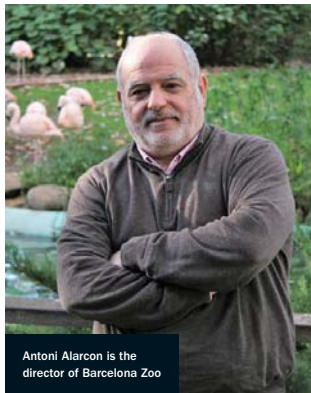
The attraction is in the early stages of transforming into Europe's first 'animalist' zoo



ANTONI ALARCON

Barcelona Zoo is about to chart a new course. In response to animal rights campaigners and legislation changes, it's becoming an animalist zoo, which will ultimately mean fewer animals, more focus on conservation and education, and a different experience for visitors. Its director, Antoni Alarcon, tells Kath Hudson what this means...

Barcelona is one of Europe's oldest zoos. Opened in 1892, it's now leading the way by becoming the world's first "animalist" zoo, meaning its role is now less about showcasing wild animals and more about leading research, as well as educating the public on how they can play their part in conservation and focussing on breeding programmes for a select number of species.



Antoni Alarcon is the director of Barcelona Zoo

Elephants, bears, camels, kangaroos and zebras will eventually disappear from the zoo. Under new legislation, they will no longer be bred because they are not endangered species and cannot be released into the wild. Those animals already living at the zoo will either be cared for until their death, or be moved to nature reserves.

An exception for the breeding ban is made for species included in plans for reintroduction to the wild. Currently only 11 species at the zoo meet this criteria, but its managers have been asked to produce proposals for other potential candidates. They would need to demonstrate that zoo breeding will bring quantifiable benefits for the conservation and viability of a species, and outline phases in which reintroduction into nature or population reinforcement will be carried out.

A new direction

Some conservationists and scientific communities who believe the breeding of endangered species in zoos is essential for their survival are against the ban. There has also been disappointment among some zoo employees, who fear for their jobs as a result of the changes.

However, animal rights pressure groups, including Libera and ZooXXI, have praised the decision, arguing it's wrong for animals to live in an unnatural environment for the entertainment of humans.

It would seem that this change is also in step with what visitors to modern zoos want. User experience research (UX) – which helped devise the zoo's new strategy – found that, for many visitors, ►



€64.6m (US\$70.5m)
has been ringfenced
for the project,
which will happen
in various stages
through to 2031



The changes are
in response to a
new law on species
survival programmes

- sadness is the main emotion aroused in zoos, primarily due to the animals' poor quality of life.

Visitor feedback also supported the notion that the concept of the zoo should be reframed as a shelter for threatened species and that education is the main value provided by zoos, together with the mission of preserving these endangered species.

This was the foundation of the new strategic plan, which was approved by Barcelona City Council last May. The new direction is backed up by a €63m (US\$70.2m) investment plan over the next 12 years, which will upgrade zoo facilities and prioritise the conservation of Iberian and Mediterranean species.

Education and research

Zoo director, Antoni Alarcon, believes this change of direction is necessary and that zoos have a new role to play in society.

"Barcelona Zoo is not just for keeping animals," he says. "It's a zoo committed to conserving biodiversity and animal welfare. It's also a zoo which believes these facilities must evolve to be able to work to prevent the silent loss of biodiversity, one of the main consequences of global climate change."

"In an increasingly urbanised society, which is divorced from nature, zoos must continue to evolve and become much more engaged, steering clear of cultural attitudes disconnected

from scientific knowledge and operational models more suited to amusement parks."

Barcelona Zoo already has a legacy of conservation and research, and has been involved with 242 conservation and research projects in conjunction with universities, public research bodies and NGOs. Going forward, the zoo will strengthen this commitment to preserving nature and its partnerships with both universities and scientific institutions.

"One of the plan's most important proposals is to set up a state-of-the-art international level research institute, dedicated to all types of research and conservation of animal biodiversity, with the involvement of the main Catalan universities and research centres," says Alarcon. "As well as leading environmental education, the centre will build awareness to the general public and encourage them to be more respectful and committed to biodiversity."

Call to action

While being designed to provide the best animal welfare conditions, the new facilities will also take into account sustainability and the immersive zoo experience.

"Zoo-immersion criteria of visitors is a critical factor in the design of new zoo facilities," says Alarcon. "We're planning new interpretation centres which will help visitors understand the difficulties the animals are in, as well as the

ONE OF THE PLAN'S MOST IMPORTANT PROPOSALS IS TO SET UP A STATE-OF-THE-ART INTERNATIONAL LEVEL RESEARCH INSTITUTE, DEDICATED TO ALL TYPES OF RESEARCH AND CONSERVATION OF ANIMAL BIODIVERSITY



New facilities will be more focused on animal welfare and sustainability



Many assert that zoo breeding programmes are essential for endangered species preservation

inherent risks in the habitats they live, and then personally involve them in preservation efforts."

A comprehensive communication strategy will also be launched to inspire people to make a positive impact on the plight of wildlife in natural habitats: "A trip to the zoo is not just about observing animals in a series of facilities, but will become an all-encompassing experience," says Alarcon. "It will help visitors acquire new knowledge and move them emotionally, spurring them into action before, during and after their visit, through our blog, social networks and publications."

Technology will play an important role in how messages are imparted, so the learnings will be imparted subtly and subliminally and without visitors having to read lots of information boards. Provisions will also be made for

Sustainable initiatives

■ Barcelona Zoo currently has reintroduction programmes for 11 species: the Majorcan midwife toad, lesser grey shrike, Hermann's tortoise, Montseny brook newt, dorcas gazelle, Eurasian spoonbill, common heron, Scops owl, Mediterranean pond turtle, monk vulture and griffon vulture.

■ A Sustainability Plan has also been drafted to improve the zoo's energy efficiency in terms of water cycle and use of resources.

■ The new spaces will include a Mediterranean biome; a marine biodiversity centre to disseminate knowledge about the threats to the Mediterranean coastal waters; a butterfly garden; an invertebrate pavilion explaining their importance for the planet's biodiversity, and a Madagascar biome to talk about the importance of evolution.



The griffon vulture is the focus of one of the zoo's 11 reintroduction initiatives

■ New interpretation centres will be created for animals of the Sahel region; komodo dragons; Mediterranean creatures and orang-utans.

■ Some projects are already underway. The incorporation of the lions into the Sahel region will be completed by June and the komodo interpretation centre will be complete by September.

specialist visitors, such as students.

Endangered species

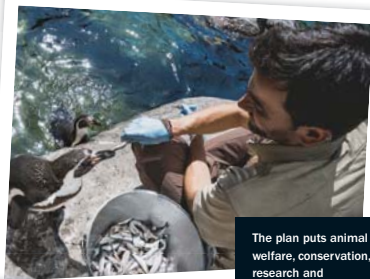
Currently, Barcelona Zoo takes part in almost 100 off-site programmes for endangered species and is home to 100 species listed as vulnerable, endangered, critically endangered or extinct in the wild. But one of the main guidelines of the new model is to prioritise native species of fauna, species which are highly endangered in the wild and which already have conservation plans.

"The facilities provided for in the model will be linked as far as possible to in-situ conservation or cooperation projects," explains Alarcon. "Given its worldwide importance and the degree to which it's threatened by climate change and global warming, one of the priority action proposals is to recreate the Mediterranean environment, which is one of the richest regions of the world in terms of biodiversity and, at the same time, one of the most vulnerable."

One example of this is the zoo's work to save the Montseny brook newt, which can only be found in a 25sq km (9.6sq mi) part of the Catalan Massif and is the most endangered vertebrate in Europe.

Could this new approach from Barcelona Zoo become the blueprint for other zoos to follow? Alarcon believes zoos need to go beyond their traditional roles and embrace new disciplines and new perspectives, which show learning about nature can be fun and useful.

His vision is that the reorganisation will lead to the zoo becoming a vibrant centre for knowledge and biodiversity conservation, and that these changes will



The plan puts animal welfare, conservation, research and education first



Reaction from the zoo community



WAZA
World Association
of Zoos and Aquariums

World Association of Zoos and Aquariums:

Barcelona Zoo's change of direction has not met with blanket approval in the zoo community. WAZA is very disappointed about the amendment from Barcelona City Council which also calls for the zoo to resign from all national and international membership associations, including WAZA.

In an open letter, WAZA, said these events filled them with "deep sadness and concern." The organisation said that although it understands the concerns that all animals should exist outside of zoos, they are becoming increasingly important for education, research and conservation.

Zoos and aquariums are the third largest funders of conservation in the world and play a considerable role in battling extinction. Hundreds of critically endangered species have been saved through the captive breeding and reintroduction programmes.

Barcelona Zoo was also a major contributor – leading captive breeding programmes which have stabilised populations of critically endangered Roloway monkeys and White-crowned mangabays. The zoo's monitoring of fin whales in Catalan-Balearic seas has helped protect this endangered species.

WAZA goes on to point out that 85 per cent of the species at Barcelona Zoo are included in the IUCN Red List of Threatened Species and over the last few years nearly 30 per cent of animals born in the zoo were released into wild habitats.

The education programmes have also provided a valuable resource to local students.

The letter says: "Together we must work at addressing major global crises such as species extinction, illegal wildlife trade, climate change, marine litter, deforestation and other threats to our shared survival. But the Barcelona Zoo itself is an important part of that relationship and far too crucial to the long term survival of wildlife and wild spaces to be cast aside."

There has been a certain amount of controversy about the amendment from the scientific community.

Ruth Martin, joint head and curriculum lead, Cornwall College Newquay:

Modern zoos generally have conservation, research and education as their core themes. The first can be done in isolation of visitors, in terms of breeding programmes, and Barcelona's idea of becoming a breeding centre for endangered animals would fit this brief. They can work other collections to manage species with a view to reintroduction.

Conservation of endangered species is laudable and a main aim of zoos, but keeping animals is an expensive business.

Traditionally zoos have evolved from being solely for entertainment, to conservation centres, with visitors the source of funding.

Charismatic animals such as lions, meerkats, common marmosets and raccoons have been housed as additional attractions for visitors alongside the endangered species - which can often be the less attractive

animals such as frogs - to enhance the visitor experience and extend their stay, as it's generally believed a visitor will pay a higher ticket price for a longer visit. Zoos can then use any profit to support conservation programmes.

Zoos often cite they provide an opportunity for people to engage with animals they would never see in the wild. Captive animals are frequently regarded as ambassadors for their species.

Barcelona Zoo's new direction is an interesting approach, but I think essentially it's the funding aspect which will limit other animal collections from following the example. It's an interesting debate that people only care about and value things they understand. If they don't have contact with animals will any conservation efforts fail?





PolinAquariums

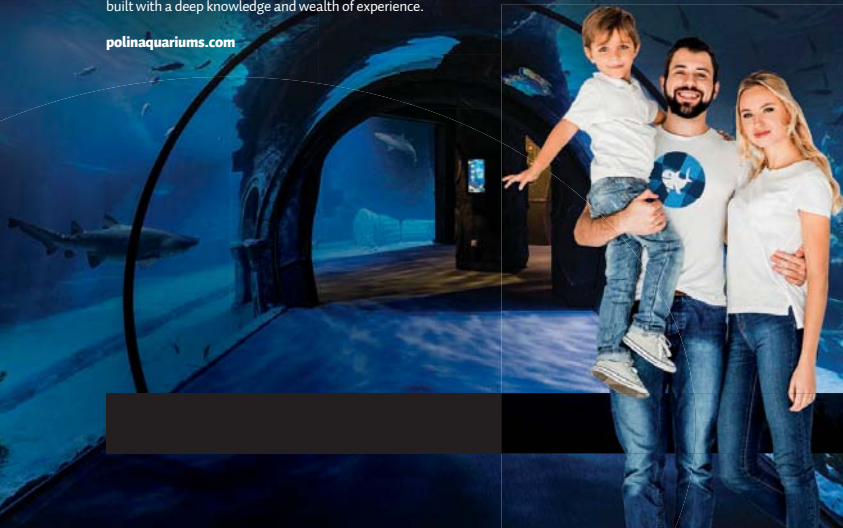
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THEME PARKS

Super Nintendo World
Universal Studios, Osaka, Japan
Opening: Q2 2020

A ¥60bn (US\$552.6m) investment, Super Nintendo World is scheduled to open ahead of the 2020 Tokyo Olympics, meaning at the latest, it will be open to the public by the opening ceremony on 24 July.

A similar scale and investment to Universal's highly-successful Harry Potter attractions, the immersive Mario-themed addition to Universal Studios Japan will feature zones filled with modern rides, interactive areas, shops and restaurants. A Mario Kart ride – top of many Nintendo fans' wish lists for the attraction has been confirmed, as has a Yoshi's Adventure ride.

Nintendo's creative team has joined forces with Universal Creative on the project which is being designed to make people feel as though they "are playing inside their favourite Nintendo games".

A second phase of development, expected to open in 2021, will feature a Donkey Kong-inspired area, with additional Nintendo worlds planned for Universal's parks in Orlando, Hollywood and Singapore.



■ Super Nintendo World is anticipated to be one of Universal's biggest draws

PLANETARIUMS

Shanghai Planetarium
Shanghai, China
Opening: 2020-2021

Set to open late this year or in early 2021, the new Shanghai Planetarium will explore the mysteries of space, celebrate the history of Chinese astronomy and reflect the future ambitions of China's space exploration programme. It will feature an optical planetarium, a digital sky theatre, an IMAX cinema, a solar telescope, an observatory and a range of galleries.

Architects Ennead are behind the design, which will comprise of three buildings: the Oculus, the Inverted Dome and the Sphere. These structures will "act as astronomical instruments, tracking the sun, moon and stars, reminding visitors that our conception of time originates in distant astronomical objects."



■ The attraction will be the world's largest planetarium when it opens to the public



■ The new experience will help guests have a deeper appreciation for the important role sharks serve in the oceans

AQUARIUMS

Georgia Aquarium
Atlanta, Georgia, US
Opening: Q3 2020

A new US\$100m gallery will house a variety of sharks, as the Georgia Aquarium expands to accommodate an increase in visitors.

The expansion is a four-storey structure housing a one million sq ft (92,900sq m)

gallery – the aquarium's seventh and most expensive – to house tiger sharks, hammerheads, sand tigers and silvertips.

Boasting a floor-to-ceiling acrylic window, a number of animal interactions are planned. An extension of the aquarium's conservation and education efforts, the experience "will help guests have a deeper appreciation for the important role sharks serve in the oceans and inspire them to join conservation efforts".



■ The nonprofit Obama Foundation is overseeing the center's creation and its campus's construction

VISITOR ATTRACTIONS

Obama Presidential Center

Chicago, Illinois, US

Opening: 2020

A monument to celebrate the legacy created by Barack Obama as US President, the Obama Presidential Center will comprise a museum, a library of Obama's archives and a forum to advance the Obama Foundation's public mission to promote global progress.

A Sky Room at the top of the building will provide views of the surrounding area, while a one-acre wetland area will capture and treat stormwater and feature a Wetland Walk.

Spread across a 78,000sq m (839,500sq ft) site in Chicago's Jackson Park, the centre has been designed by Tod Williams and Billie Tsien. The building's design has been slightly modified following local feedback, with latest changes showing a more refined and reduced form for the building.



■ The Humboldt Forum will be housed inside the reconstructed Berlin Palace

HERITAGE/MUSEUMS

Humboldt Forum

Berlin, Germany

Opening: September 2020

The Humboldt Forum – a museum and heritage site in Berlin – will open in phases starting this September following construction delays.

The museum – named after the explorer and polymath Alexander von Humboldt – aims to “bring together diverse cultures and perspectives and seek new insights into topical issues such as migration and religion”.

Italian architect Franco Stella has reinvented the Berlin Palace, which is considered one of the most important secular Baroque buildings in Northern Europe. His design combines the past with the present, including a reconstruction of the iconic historical facades. The project is reported to be around €600m (US\$668m).

WATERPARKS

Cartoon Network Waterpark

Bali, Indonesia

Opening: 2020

A second Cartoon Network waterpark is coming to Asia, with real-estate and hospitality investment company the MAJ Group currently developing a waterpark and family entertainment centre in Bali.

Set to open by the end of this year, the 43,000sq m (462,800sq ft) development will feature the tropical island's largest waterpark, complete with immersive Cartoon Network theming.

Part of the Nusa Dua complex – a tourism development opened in 1973 – the waterpark will sit at the southernmost tip of the island and will feature a selection of rides and slides, as well as a giant surf and wave pool.



■ The new waterpark follows the 2014 debut of the Cartoon Network Amazone waterpark in Bang Saray, Thailand

► NEW OPENINGS 2020

MUSEUMS/SCIENCE CENTRES

Stephen Hawking VR UK

Opening: Early 2020

An immersive experience for museums which takes people on virtual reality tour of the universe, and is narrated by the late Professor Stephen Hawking, is due to launch in the coming months.

The project is a collaboration between Hawking and Atlantic Productions, the company behind a number of award-winning productions, including numerous David Attenborough documentaries among other projects. It will be delivered through a series of pop-ups across Britain early in 2020, before being distributed to museums worldwide.

"Before his death, Stephen recorded the narration of his journey," said Atlantic Productions founder, Anthony Geffen, speaking to *Attractions Management*. "In this experience, he's going to take you through space, sharing his thoughts as you explore."



■ Anthony Geffen worked with Stephen Hawking on the project



■ The additions and renovations will add more than 72,000sq ft of new and refurbished space to the museum



GALLERIES

Denver Art Museum Denver, Colorado, US

Opening: 6 June 2020

The Denver Art Museum will begin a phased reopening of its campus later this year, with a new welcome centre, learning and engagement centre, 72,000sq ft (21,945sq m) of new and refurbished gallery space and new dining experiences.

Three levels of the existing Gio Ponti-designed Martin Building will be

reopened, including the refurbished Bonfils-Stanton Gallery, new Amanda J Precourt Design Galleries and interactive space, and renovated Northwest Coast and Alaska Native gallery.

The Anna and John J. Sie Welcome Center is a new 50,000sq ft (15,240sq m) elliptical-shaped structure which includes a second level of 10,000sq ft (3,048sq m) of flexible event space – the Sturm Grand Pavilion – enclosed by 25ft (7.62m) tall floor-to-ceiling glass panels. The entire building will be reopened to the public by its 50th anniversary at the end of 2021.

MUSEUMS

Museum of the Home London, UK

Opening: Q3 2020

The £18.1m (US\$23.4m) renovation and reimagining of the Geffrey Museum will come to fruition in Q3 2020, with the museum's reopening at its Grade-1 listed almshouse location.

The relaunch will coincide with a new name, as the museum is dropping the Geffrey moniker to be known as the Museum of the Home.

Lottery funding to the tune of £12.3m (US\$15.9m) has been critical in allowing



■ The museum explores the home from 1600 to the present day through evocative displays

the renovation of the museum, which will result in 80 per cent more space to present its collections. The redevelopment was designed by Wright & Wright Architects.

Placing the human viewpoint and personal stories at its heart, the



museum will respond to national and global narratives about themes relating to the home – including those such as homelessness, immigration and mental health – through a programme of activities, such as festivals and exhibitions.



ZOOS

Auckland Zoo Auckland, New Zealand Opening: February 2020

A multi-year opening for its phased development programme, New Zealand's Auckland Zoo is set to open a new phase of its South East Asia Jungle Track project.

The development includes habitats for new species from the south-east

Asian jungle, including a high canopy for orangutans, gibbons and other primates, lowlands for tigers and otters, a swamp forest dome with a scientifically-engineered environment to mimic the hot and humid Tropics, where the Sunda gharial and a range of other reptiles and fish will live. Also included will be a lake and wetlands with an extended climbing range for the zoo's arboreal primates.

On a more functional level, a new 1,000sq m (3,280sq ft) café and function

venue is being built, with views of the lake and wetlands habitat, while infrastructure services such as power, gas, data and water will be renewed.

Funded by Auckland Council, the NZ\$58m (US\$39m) investment is part of the zoo's wider 10-year, NZ\$150m (US\$100.9m) evolution programme. The high canopy is set for February 2020, followed by the lowlands between June and August. The tropical dome will be open by November.



SCIENCE CENTRES

Golden Horn Shipyard Science Center Opening: November 2020

Ground was broken in February 2019 on what is expected to become the largest science centre in Europe, attracting upward of 30 million visitors per year.

DP Architects is the appointed Design Architect for the US\$21m project, with the first phase of the development expected to open in November 2020.

The overall project will feature three museums, with the science centre to be joined by the first museum dedicated to women in Turkey, as well as the Sadberk Hanım Museum, a private archaeology and art history museum that will be relocated from its current site in the Sanyer district of Istanbul, and a Turkish-Islamic arts museum.

"The project will not only increase the brand value of Istanbul. It will also make a positive contribution to Turkey's tourism revenue," said Turkey's President, Recep Tayyip Erdoğan.

MUSEUMS

Atlantic Museum Galway Galway, Ireland Opening: 2020

Among Ireland's most popular attractions, a new plan for Galway's City Museum will create a 'medieval city walls experience' to make more use of the Spanish Arch – one of the main tourism sites in the city.

The €10.2m (US\$11.4m) plan will see the museum rebranded as the Atlantic Museum Galway alongside its redevelopment. It will be created at Comerford House, next to the current museum, with new exhibitions over three storeys highlighting the influence the Atlantic has had.



► NEW OPENINGS 2020

AQUARIUMS

The National Aquarium Abu Dhabi, UAE

Opening: 2020

Set to be the largest aquarium in the Middle East, the National Aquarium will be a cornerstone of the upcoming dining and entertainment destination Al Qana, which is being created by Al Barakah International Investment and the Abu Dhabi Municipality.

Covering a space of 7,000sq m (22,965sq ft), the aquarium will be home to 33,000 marine creatures, and will employ a team of 80 sea-life experts and specialist. The destination will highlight the importance of conservation throughout its themed zones. Developers say the destination will welcome one million visitors a year when it opens.



■ The aquarium will be home to 33,000 marine creatures, that will be cared for by a team of 80 sea-life experts



■ A visualisation of a cavalry charge

MUSEUMS

Polish Army Museum Warsaw, Poland

Opening: November 2020

NM Architekci have designed a permanent exhibition space for the new Polish Army Museum in Warsaw.

Costing an estimated PLN 250m (US\$65.4m), the new museum will be housed inside the Warsaw Citadel – a 19th century fortress in the city which served as a prison into the late 1930s. The design divides the exhibition space into three “sightseeing paths”. Either short, medium or long, visitors will be able to take in the exhibition at their own pace, with each path offering a different perspective of the exhibitions.

VISITOR ATTRACTIONS

Dubai Expo Dubai, UAE

Opening 20 October 2020

Expo 2020 Dubai will be the first World Expo ever hosted in the Middle East, Africa and South Asia region. Expo 2020 is expected to attract 25 million visitors, with 70 per cent of visitors projected to come from outside the UAE – the largest proportion of international visitors in the 168-year history of World Expos.

■ Dubai Expo will be a celebration of the UAE Vision 2021 by supporting tourism growth and stimulating business

There will be more than 200 participants including nations, multilateral organisations, businesses and educational institutions. To date, 190 nations from across the world have confirmed their participation at Expo 2020.

In line with the Expo 2020 theme of sustainability, 80 per cent of Expo-built buildings and structures will find new life in the future city of District 2020.



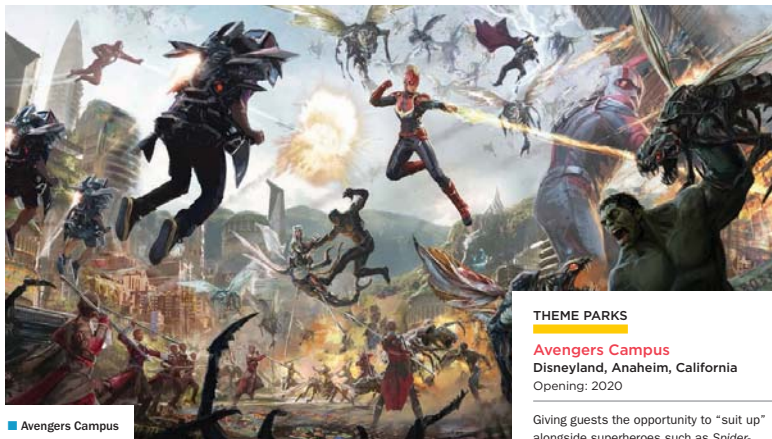


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■ Avengers Campus will eventually open at a number of Disney theme parks



THEME PARKS

Avengers Campus
Disneyland, Anaheim, California
Opening: 2020

Giving guests the opportunity to "suit up" alongside superheroes such as *Spider-Man*, *Ant-Man* and *The Wasp*, Avengers Campus features several attractions, including the Worldwide Engineering Brigade (or WEB), which is Disney's first ride-through experience featuring *Spider-Man*. Here, guests can try out the Web Slinger vehicle, gaining a taste of the character's superpowers as they help him collect Spider-Bots that have run amok.

The Campus also features the Pym Test Kitchen eatery, as well as the Avengers Headquarters, set to open in phase two, where guests will be able to board a Quinjet and fly alongside *The Avengers* in an adventure to Wakanda and beyond.

THEME PARKS

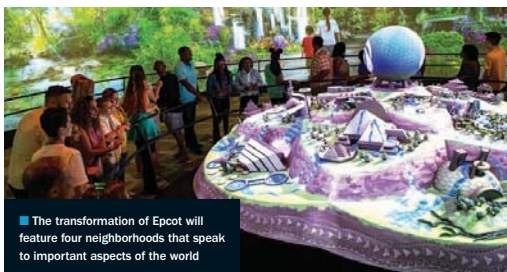
Epcot
Orlando, Florida
Opening: 2020

The biggest transformation of any of Disney's parks, Epcot is undergoing a radical transformation which will see characters such as *Mary Poppins*, *Beauty and the Beast*, *Moana* and *Guardians of the Galaxy* come to the park.

The United Kingdom pavilion will be home to the new *Mary Poppins* attraction. Inside, guests can step inside the home of the Banks family, for whom Poppins was the nanny in the movie.

The French pavilion will feature a new *Beauty and the Beast* sing-along and a *Ratatouille* attraction.

In World Nature, visitors will find *Journey of Water*, inspired by *Moana*, as well as



■ The transformation of Epcot will feature four neighborhoods that speak to important aspects of the world

Awesome Planet, a new film at the Land pavilion, showcasing the beauty of the planet and its dynamic story.

New in World Discovery will be *Guardians of the Galaxy: Cosmic*

Rewind: the first "other-world" showcase pavilion at Epcot. This will include a new storytelling coaster that rotates 360 degrees and has the first reverse launch of a Disney coaster. ●

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RIDING THE WAVE

New exciting and innovative rides are coming in 2020. We look at a few of the hottest openings set for the year ahead.

OPENING:
Q1/Q2
2020

IRON GWAZI

Busch Gardens Tampa,
Florida, US

Rocky Mountain Construction

Heralded as one of the biggest rollercoaster openings of 2020, Iron Gwazi will be the tallest wood-steel hybrid rollercoaster in North America, as well as the fastest and steepest hybrid coaster anywhere in the world.

With a 91 degree drop and a top speed of 76mph (122.3kmph), Iron Gwazi is the same height – 206ft (62.3m) – as Energylandia's record-breaking Zadra. However, Gwazi's drop is slightly more than Zadra, meaning it has a higher top speed. Stretching 4,075ft (1,242m), the ride track will also feature three inversions and 12 air time sections.

Inspired by the crocodile, Iron Gwazi is an evolution of Busch Garden's former wooden coaster, Gwazi, with elements of the former attraction integrated into the new version. The new steel track and re-imagined layout presents an entirely new experience for Iron Gwazi. Its original form first opened in June 1999 and reached speeds of up to 51mph (82kmph). It closed in February 2015.

Iron Gwazi will be North America's tallest hybrid coaster and the fastest and steepest hybrid coaster in the world

MICKEY AND MINNIE'S RUNAWAY RAILWAY

Disney's Hollywood Studios, Orlando, Florida, US
Disney Imagineering

OPENING:
4 MARCH
2020

The first Disney ride to feature Mickey and Minnie Mouse, Mickey and Minnie's Runaway Railway is a dark ride experience billed as a 'zany out-of-control adventure', where guests will find themselves transported into a Mickey Mouse cartoon.

The ride will be one of Disney's most visually advanced attractions, using new technologies to transform the two-dimensional cartoon world of Mickey Mouse into a "multi-dimensional experience". It will feature "2.5D" technology – essentially 3D without glasses – as well as projectors and technologies created by Panasonic.

The ride is being constructed in place of the former Great Movie Ride and will be based on the Mickey Shorts that are shown on the Disney Channel. It will debut on 4 March, with the ride coming later to Disneyland in California in 2022.



Runaway Railway
replaces The Great Movie
Ride at Hollywood Studios

OBJECTIF MARS

Futuroscope, Nouvelle-Aquitane, France
Intamin

OPENING:
28 MARCH
2020

Futuroscope is about to launch its first major rollercoaster, with the new addition of a sit-down steel coaster from Intamin.

Called Objectif Mars, the space-themed attraction takes riders on a mission to the red planet, with the ride designed to simulate the g-forces that astronauts feel as they travel through space. On the ride, "trainees" have their ability to endure extreme environments put to the test so

they can join Mission 2040 and travel to Mars.

The family ride is a new concept featuring spinning cars, a dark ride section and a free-fall drop track. The ride experience will last around three minutes with a launch at the start, taking riders up to 55kmph (35mph). The €20m (US\$22.3m) investment is the largest ever by Futuroscope.



Riders will have to test their resistance in extreme environments and prove their ability to join a mission to Mars

ICE BREAKER

SeaWorld Orlando, Florida, US

Premier Rides

Stretching 1,900ft (579m), the multi-launch Ice Breaker will feature four launches with airtime, both backwards and forwards, culminating in a reverse launch into the steepest beyond vertical drop in Florida. At its peak, the 93ft (28.3m) spike will drop into a 100-degree angle.

Ice Breaker follows an Arctic theme and will be located near SeaWorld

OPENING:
Q1/Q2
2020



Ice Breaker will have a conservation focus

Orlando's Wild Arctic attraction. In line with SeaWorld's conservation-based approach, the ride gives a nod to its conservation partner – the Alaska SeaLife Center, which

is primarily dedicated to marine research, education and wildlife response. The ride experience educates guests about the Arctic and its inhabitants.

EMPEROR

Seaworld San Diego, California, US

Bolliger & Mabillard

A second SeaWorld entry, this time in California, Emperor will be the state's first floorless dive coaster when it opens to the public in May.

Reaching speeds of up to 60mph (95.6kmph), the penguin-themed Emperor will also hold the record for California's tallest rollercoaster, standing at 150ft (45.8m) tall. The ride is presented as a "deep dive into the depths of the ocean" as a tribute to the Emperor Penguin's dives to more than 1,800ft (548m) below sea level.

B&M is behind the ride, which will top Knott's Berry Farm's Hang Time by a few feet and miles per hour. During the ride experience, the train will hang over the edge briefly, before plummeting down a vertical first drop into a barrel roll.

SeaWorld is partnering on the ride with Penguins International to highlight the conservation needs of the birds.

OPENING:
MAY
2020



LEVIATHAN

Sea World, Queensland, Australia

Martin & Vlemminckx

Canadian manufacturer Martin & Vlemminckx is behind a new wooden coaster coming to Queensland's Sea World.

Part of an AU\$50m (US\$34.3m) investment into new attractions at Village Roadshow-operated theme parks, the centrepiece will be Leviathan, one of three multi-million dollar additions to Sea World.

The first wooden coaster to be built in Australia in 35 years, Leviathan is set over a 1km (0.62mi) track with riders climbing 105ft (32m) before experiencing the ups and downs and twists and turns of the ride, which features 10 crossover moments through the track. A world-first for any wooden rollercoaster, Leviathan will feature rear seats, allowing guests to ride in reverse.

Leviathan will be the only traditional wooden coaster in operation in the country when it opens in December. Martin &

OPENING:
DECEMBER
2020



Leviathan is the first wooden rollercoaster to be built in Australia in more than 35 years

Vlemminckx are working with The Gravity Group on the project, which has helped with the design process and manufactured the ride's 24-seater trains.

Further additions to the park include a swinging pendulum called Vortex, and Trident – a spinning ride which reaches heights of 170ft (52m).

SeaWorld's Emperor is set to break several rollercoaster records



OPENING:
2020

AQUAMAN: POWER WAVE

Six Flags Over Texas, Arlington, US

Mack Rides

This LSM launch coaster will be Mack Rides' first Power Splash model in North America. During the Aquaman-themed experience, the ride launches guests backwards, forwards, and then backwards again, with the train climbing 146ft (44.5m) up the 708ft (215.8m) track's two peaks, reaching speeds of 100kmph (62mph).

After the final climb, guests plunge down into a giant splash zone, which is created using clever technology to almost instantaneously submerge the previously dry track. The section of track which ends up submerged is contained within its own reservoir inside a larger pool, putting the track below the overall water level and allowing the ride train to pass through with little to no resistance. When the system is

ready for the final plunge, the flood gates containing the surrounding pool opens and water pours into the splash zone, raising it to the correct level in less than six seconds. After the car has passed through, the flood gates close and pumps drain the track's reservoir in less than 30 seconds.

This will be the second ride to use the Power Splash system following on

from Walibi's Pulsar ride in Belgium. Aquaman: Power Wave will replace the existing Aquaman: Splashdown ride, which originally opened in 1987 under the name Splashwater Falls. Last year, the area housing the ride was hit by flash flooding, closing the old version along with the Yosemite Sam river ride permanently due to water damage.



Power Wave is the park's 15th rollercoaster

Candyonium will be the tallest, fastest and longest coaster at Hersheypark



OPENING:
Q2 2020

CANDYONIUM

Hersheypark, Pennsylvania, US

Bolliger & Mabillard

Part of the new US\$150m Chocolateatowen expansion due to open in Q2 of 2020, Candyonium is a sit down steel hypercoaster from Bolliger & Mabillard that will span 305,000sq ft (28,300sq m) and reach heights of 210ft (64m).

Dubbed "the world's sweetest coaster", the entire ride is chocolate themed, with three Hershey's trains, as well as a Hershey-themed arrival area and coaster building.

The ride is the largest of Hersheypark's 15 rollercoasters, reaching speeds of up to 76mph (122kmph). It will also feature seven camelback hills and a 123-degree hammerhead curve to provide feelings of weightlessness.

The milk chocolate-coloured ride will run a length of 4,636ft (1,413m) with the entire experience lasting almost two-and-a-half minutes.

F.L.Y.

Phantasialand, Brühl, Germany

Vekoma

Set to become the world's longest flying coaster – a record currently held by the Flying Dinosaur at Universal Studios Japan – this new addition for Phantasialand, in large part, has been kept under wraps.

Coming to the Rookburgh area of the German theme park, construction on the new ride started in June 2018. It's expected to be completed later this year.

OPENING:
Q3 2020



F.L.Y. will be the longest flying coaster in the world when it opens

ABYSSUS

Energylandia, Zator, Poland

Vekoma

OPENING:
2020

The signature attraction for the new Aqualantis-themed area of Energylandia opening this year, Abyssus is a double launch Shockwave rollercoaster from Vekoma that will cross much of the 645,000sq ft (60,000sq m) land.

Stretching 4,318ft (1,316m) and featuring four inversions, riders will reach a top speed of 100kmph (62.1mph) and heights of 147.6ft (45m) during the experience, which is an €11m (US\$12.2m) investment.

The land, based on ancient Atlantis, was developed by Jora Vision. It will also feature a boat ride, interactive Whirlpool Water Fight and a Disco Coaster.

The heart-racing Abyssus will feature five inversions



THE HAPPY RIDE WITH BAYMAX

Tokyo Disneyland, Japan

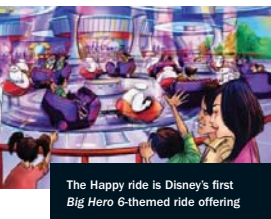
Disney Imagineering

OPENING:
15 APRIL
2020

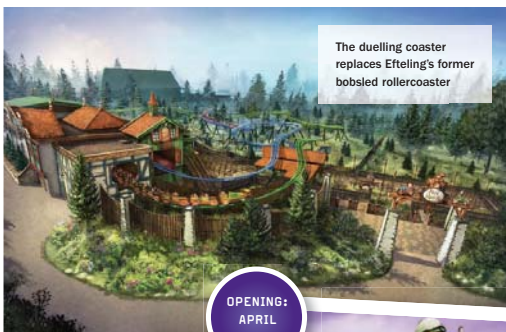
The Happy Ride with Baymax is an upcoming *Big Hero 6*-themed carnival spinner coming to Tokyo Disneyland.

Opening in the Tomorrowland section of the park, the ride invites guests to join their own personal healthcare companion Baymax for an exciting musical "whip ride" that swings them unpredictably round and round.

This is the world's first rotating ride attraction themed to *Big Hero 6*. The story of the ride says that Hiro Hamada learned from Baymax the first step to make people healthy – make them happy. The pair develop the ride, which "scans" riders with lights to measure their happiness while on board. The ride experience lasts around 90 seconds.



The Happy ride is Disney's first *Big Hero 6*-themed ride offering



The duelling coaster replaces Efteling's former bobsled rollercoaster

OPENING:
APRIL
2020

MAX & MORITZ

Efteling, Kaatsheuvel, Netherlands

Mack Rides

This family-friendly "power coaster" by Mack Rides is the latest addition to fairytale theme park Efteling. Replacing the 34-year-old Swiss Bob Coaster, the new ride is inspired by the German tale of brothers Max and Moritz – a picture book written and drawn by Wilhelm Busch in 1865. In the comic, Max and Moritz turn their village into a hazardous place, pulling a number of pranks on the village's residents.

Set for April, the double rollercoaster has electrically powered trains, meaning that they can travel at varying speeds



and do not have to depart from a great height. The trains will run in opposite directions, with each track – blue for Max and green for Moritz – offering a different experience to riders. The tracks will intertwine, rolling under and over each other in an alpine setting.

The ride will be capable of running 2,000 people an hour. Its maximum height is 19.7ft (6m), with the ride reaching speeds of up to 22.4mph (36kmph).



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LSM LAUNCH COASTER



BY TOUTATIS!

Thirty years since its grand opening, Parc Astérix is showing no signs of slowing. Tom Anstey speaks to the park's deputy director, Guy Vassel, about how the park has grown and developed over the last three decades...

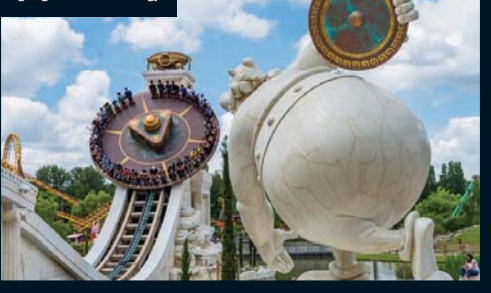
A resolute village of Gauls standing up to the repression of the invading Roman Empire is a story that has inspired France and Europe for generations.

Created by René Goscinny and Albert Uderzo in 1926, the *Astérix* comic book series has become an iconic part of French culture, spawning a number of adaptations including videogames, movies and merchandise. In 1989, Astérix even got his very own theme park in Plailly on the outskirts of Paris.

Indomitable

"Since opening, our aim and the way we tell our stories, has always stayed the same," says Guy Vassel, deputy director of Parc Astérix. "It's very important to keep the indomitable DNA of the park – the adventures of Asterix and Obelix, and the

Discobélix opened in 2016 as part of Parc Astérix's ongoing investment strategy



Guy Vassel is deputy director of the park

humour of it – as it always was. That's what inspires families to visit our attraction."

The Compagnie des Alpes-operated theme park turned 30 last year. The occasion was marked with the launch of the park's newest attraction – a 4D cinema experience called Attention Menhir.

A 15-minute experience, the new attraction by CL Corp – a French firm which recently combined forces with Triotech – seats 300 people at a time and uses dynamic motion seats to immerse guests in the world of Astérix. The attraction also uses air blasts, wind, water jets and leg ticklers combined with the movement

of the seat as the troop of Gauls offer a fierce fight to Emperor Julius Caesar.

"It opened in April 2019 and has been a big success for us," says Vassel. "It's ranking among the park's top three attractions. The story is very funny. It's very immersive and you can follow your favourite characters through their adventure in the world of Astérix."

New investment

While Attention Menhir is the latest major addition to the park, it certainly isn't the first and definitely won't be the last. The park has a grand 10-year masterplan, ▶



Parc Astérix is France's second biggest theme park after Disneyland Paris, with the attraction welcoming more than two million visitors a year



It's very important to keep the indomitable DNA of the park – the adventures of Asterix and Obelix, and the humour of it – as it always was





Parc Astérix offers 48 different attractions and one of the widest varieties of rollercoaster in Europe



PARC ASTÉRIX BY THE NUMBERS

Opened: 30 April 1989
 Cost to build: 850m French Francs (€129.5m, US\$145m)
 Operator: Campagne des Alpes
 Size: 330,000sq m (3.5 million sq ft)
 Attractions: 38
 Rollercoasters: 7
 Water rides: 6
 Oldest ride: Goudurix sit-down coaster by Vekoma (opened 1989)
 Hotels: 3
 Rooms: 450
 Distance from Paris: 20m (32km)
 Opens: April
 Closes: Early January
 Annual visitor numbers: 2.3 million

► which sits alongside a five-year development cycle for new attractions. In those five year spans, the aim is to open at least one small attraction, one medium attraction and one large attraction, constantly updating and refreshing the offering to guests at the park.

"In the last five years, we've opened 10 new attractions and three new shows," says Vassel. "We're still developing a lot of new shows and attractions, and we've had a big increase in investment and attendance over that development period."

The park's investment strategy has clearly had an effect on attendance, with annual visitor numbers of 1.5 million in 2014 rising by a substantial 800,000 guests to 2.3 million visitors in 2019. This rise places Parc Astérix as one of France's most popular theme parks, second only to the nearby Disneyland Paris.

The park is very well known for having a large variety of rollercoasters – more than any other theme park in France. This strategy, along with its investment plans is set to continue, with rollercoaster additions planned for both 2021 and 2022. The first, by Rocky Mountain Construction, is a redevelopment of the park's existing Tonnerre de Zeus.

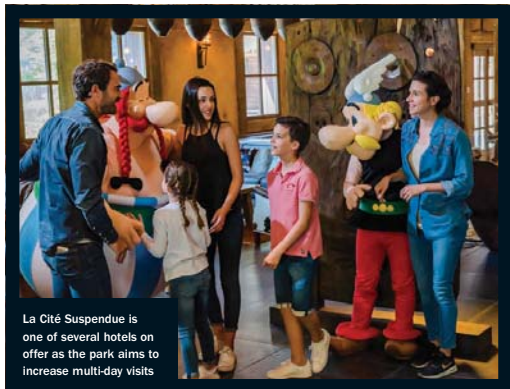
First opened in 1997, the ride, originally built by the now-defunct Custom Coasters International, reaches speeds of up to 52mph along a 1,200m (3,900ft) track and heights of more than 30m (98.4ft).

As Rocky Mountain has done with rides such as Untamed at Walibi – a Dutch park also owned by Campagne des Alpes – the wooden coaster is getting the same treatment, with its conversion into a wood/steel hybrid offering a smoother ride, which can now also include inversions.

"It's going to be an all-new experience with lots of air time," Vassel revealed. "We started on the project in the winter of 2018. It's a two-year process to do all the work, so we hope to debut the ride for our 2021 season."

The second ride, which falls under the 'major' project bracket has been kept a little more under wraps. Scheduled for the 2022 season, the launch coaster by Intamin is called Toutatis.

The name suggests the theme of the ride will be based on the Celtic god worshipped in ancient Gaul and Britain. In terms of Astérix, the phrase "By Toutatis!" was coined by Goscinny and Uderzo to express strong emotion in the comic book series.



La Cité Suspendue is one of several hotels on offer as the park aims to increase multi-day visits



Seasonal events are becoming key for the park, with Christmas and Halloween performing particularly well

With the addition of our new seasons and a number of new state-of-the-art attractions, you can see where our heavy investment has gone



Intamin revealed some technical details for Toutatis during the 2018 IAAPA Attractions Expo. The manufacturer said it would be a launch coaster reaching 51m (167ft), with elements including a triple launch halfway through the track and a top speed of 66.5mph (107kmph). The triple half-pipe launch will send visitors forwards, backwards and forwards again, with the train eventually reaching enough speed to make it over the ride's peak. Intamin says that the ride will hold a European record for the most launches on a coaster and a world record for the most feelings of weightlessness – 23. Originally scheduled for 2021, the build was delayed until 2022 as the coaster layout impeded on a number of protected trees in the adjacent National Forest, meaning a solution would need to be reached or the ride concept would have to undergo some modification.

Destination development

With more than €100m (US\$111m) worth of investment in the last three years alone, not only is Compagnie des Alpes aiming to use these investments to enhance Parc Astérix's offering as a visitor attraction, but also as a multi-day resort destination.

In 2018, the park added fifty new rooms to its Hôtel des 3 Hiboux, as well as Cité Suspendue – a 150 bedroom Celtic-style village split into three “hamlets”. Opening in April 2020, it introduces its most ambitious hotel project, Les Quais de Lutèce, a 150 bedroom immersive experience recreating Lutetia – the name for ancient Paris – in the year 50 BC.

“We’re going to take you inside of the comics,” says Vassel. “It’s the Lutetia of Goscini and Uderzo at the very start of the story of Astérix. We’ve recreated the River Seine and the city around it – it’s a very immersive experience which also happens to be a four-star hotel.

“You’re 100m (328ft) away from the park and resort guests will be able to come in 30 minutes before our regular visitors. Guests of the hotel will also get the chance to meet Asterix and Obelix at breakfast.”

The addition will bring room numbers up to 450. Opening in April, the staging has been created by French set designer Thierry Retif, with rooms able to accommodate up to four or five people each.

The hotel has 70sq m (753sq ft) of solar panels installed to help power the mini-city, which boasts wood elements from eco-responsible, sustainable French forests. The immersive experience will also include a 300-seat restaurant, as well as 300sq m (3,300sq ft) of conference space.

“We’ve added two hotels in five years to better position the park as an overnight destination. The total investment of €100m (US\$110m) is just for the last three years. For our entire 10-year entire masterplan you can easily double it to more than €200m (US\$222m),” explains Vassel.

Extended ambitions

With a rise in attendance and the addition of new accommodation has come an extension of the park’s traditional season. Opening at the start of April each year, the park now remains open right up until

the new year, with both the Halloween and Christmas seasons proving fruitful.

“We had a huge summer and Halloween,” says Vassel. “Historically we’ve been a seasonal park but now our aim is to be open all year long.”

In December, the park debuted a new winter season. Called Gallic Christmas, it extends its year all the way to 5 January. During the event, the Gauls “call a truce” with the Romans to celebrate, with the park transformed to include snow-covered menhirs, decorations, special attractions and new Christmas-themed shows.

Among the offerings, a traditional Christmas market was installed in the park’s Les Rues de Paris, with Christmas carollers performing in the themed setting. The park also installed a winter sports village, which featured a 28m (92ft) toboggan run, a 150sq m (1,600sq ft) children’s skating rink and a 400sq m (4,300sq ft) adult rink. Four new Christmas-themed shows were also introduced, including an ice show, a circus performance, a magic show, and a fireworks and lights display. Rates were also reduced for the season so all adults paid the children’s prices to enter the park.

“We have a lot of shows, maybe more shows than ever and the street atmosphere we’ve cultivated is very important,” says Vassel. “With the addition of our new seasons and a number of new state-of-the-art attractions, you can see where our heavy investment has gone. We’re a park for all ages and an attraction for the entire family.” ●

SHOOTING FOR THE STARS

The Imagineers who created Star Wars:
Galaxy's Edge reveal the secrets
behind one of the most significant
theme park developments in history



■ A life-size version of the Millennium Falcon is the centrepiece of the multi-billion dollar attraction

It's possibly the boldest undertaking in the entire history of theme parks – a fully immersive land where guests can create their own story in the *Star Wars* universe.

The multi-billion-dollar *Star Wars: Galaxy's Edge* – which opened first at Disneyland in Anaheim in May last year and later at Disney's Hollywood Studios in Orlando in August – is set on the Black Spire Outpost on the wild frontier planet of Batuu. It features attractions, shops, restaurants and entertainment offerings all as one immersive experience for its visitors.

Offering a rare glimpse behind the Disney curtain, BRC Imagination Arts' Bob Rogers gathered four of Disney's top Imagineers for the annual IAAPA Legends Panel to share knowledge and stories learned from bringing the game-changing experience to life.

Generational offering

Scott Trowbridge has an extensive background in the creation of themed design and immersive experiences. Having worked as vice president of the creative division of Universal, he helped to develop *The Amazing Adventures of Spider-Man* ride and some of the early concepts for *Harry Potter*'s theme park attractions. Now, as portfolio creative executive for Disney Imagineering, Trowbridge integrates *Star Wars* content across all lines of business at Disney's Parks and Resorts division, and had a key role in the creation of *Galaxy's Edge*.

"People have been dreaming about stepping into this world for more than 40 years," he said. "We know that our *Star Wars* fans are very passionate, as are our Disney Parks fans. Finding a way to please both of those audiences – which has a significant overlap – was an awesome task. Entire families have this love of *Star Wars*, which is being

passed on from generation to generation. There's this wish fulfillment to step into this world. Making that dream come true was definitely an intimidating prospect."

Connecting worlds

Second in the Legends line-up was Margaret Kerrison, managing story editor at Disney Imagineering and alumni of BRC.

In her role, she is responsible for the overall story direction and integration for projects in the *Star Wars* portfolio. For *Galaxy's Edge*, she served as the story lead, working closely with other Imagineers and Lucasfilm to create an authentic, compelling and interconnected universe, "keeping the hundreds of *Star Wars* stories

straight as they move across all of the mediums and platforms". According to Kerrison, the land is set up to tell new stories well into the future.

"The team at Lucasfilm were incredible to work with," she explained. "They helped us shape the slate of our programming and it's not over."

"We're looking at the future of storytelling for *Galaxy's Edge* above and beyond what you see today. There are many moments where we say 'we're not ready to tell this particular story right here, right now, so let's hold on to that and keep it in our pockets'. It's being able to connect all of those formats because we're building one universe. These stories speak to one another."

Technology experiences

Anisha Deshmene was the newest member of Imagineering to be on the panel. Joining Disney in 2018, the MIT-educated assistant producer for Imagineering

■ *Galaxy's Edge* is an immersive experience like no other, taking visitors right into the *Star Wars* universe



People have been dreaming about stepping into this world for more than 40 years. Making that dream come true was an intimidating prospect



■ Disney legends came together at IAAPA to discuss the creation of *Star Wars: Galaxy's Edge*

was recruited to help achieve new levels of interactive experience at Galaxy's Edge. Her approach saw the creation of "unique customised experiences" that were designed to feel special for each individual visitor.

"It's a new way of telling a story that hasn't been done like this before," she said. "We wanted our guests to feel like they had a place in the world, to feel like they could make a difference.

Having everyone now bringing a little computer in their pockets – a smartphone – was a very helpful way to enhance that experience."

Deshmane helped to develop *Star Wars: Datapad* – an extension of the Play Disney Parks app that allowed interactivity with the land – helping to enhance the *Star Wars* story.

"It was something all of the creative teams were thinking about," she said. "There are a lot of things you can find with the app that are off the beaten path that I think people don't expect. You can use that knowledge of how to interact with the space around you to take on jobs for characters in the land as well.

"It touches on every single aspect of how the land functions. It's its own attraction and it breaks that boundary of 'wait in a queue, go on a ride, come out the other side, buy a souvenir'. It's something that begins to be its own experience and can be something you spend multiple hours doing."

No stone unturned

Imagineering's portfolio director, Chris Beatty, was one of the creative directors in charge of development

at Galaxy's Edge, as well as acting as a senior designer for the physically built environment. Now the creative lead for Magic Kingdom and Hollywood Studios in Orlando, Beatty said that the design process didn't leave a stone unturned, with "no thread to unravel" the immersive experience.

"I'm one of those people who grew up getting action figures for Christmas, waiting in line to go and see *Empire Strikes Back*," he said. "This was an amazing opportunity with an incredible responsibility to *Star Wars* fans. We had to get this right and we had to create something that was new and unique."

In planning and design, Beatty said that the approach to the land was to make it accessible for all generations and all visitors, from the most dedicated *Star Wars* fans to someone coming with fresh eyes.

"*Star Wars* for me is not necessarily *Star Wars* for my 10-year-old son," he explained. "His *Star Wars* now is *The Mandalorian*. It's Episodes 7, 8 and

9. That really was something we discussed as a team when we started this process. How do we make this experience something

Brands such as Coca-Cola have a *Star Wars* twist

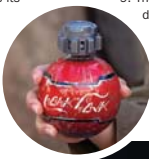


Everything in the world is themed to match the environment

that's for everyone? Something that no matter where you are in the franchise, where you're coming in, that there's a *Star Wars* for you."

On planning and design, Beatty also revealed that a new approach was taken for Galaxy's Edge. A traditional approach would have seen the land created, with elements such as merchandise, entertainment and food and beverage added in afterwards. For this project, Imagineering brought these partners in from day one.

"It's no longer baking up a concept and then bringing it to our partners," he said. "Having, for example, entertainment at the table means we can show them our design and they tell us what it might be great to do with a certain space one day. Our partners felt like they could go away and work on their individual guest experiences while we were almost 'baking them into the cake' that is Galaxy's Edge."



We wanted our guests to feel like they had a place in the world, to feel like they could make a difference



Visitor experience

One of the key things that makes Galaxy's Edge stand out in the attractions world is the attention to detail in the visitor experience. Down to the way food is presented and merchandise is sold, everything within the land is designed to feel like it belongs.

"We stopped thinking in terms of 'that's a ride' or 'that's merchandise' and started thinking about everything more like attractions," said Beatty.

"If you think about food and beverage, you usually spend more time sitting in a restaurant than you do riding a ride, so shouldn't that experience, especially for grandma and grandpa, or kids who can't go on big thrill rides, be just as immersive? Having a meal or going shopping should be just as impactful, have just as much depth and story. You can't look at these things as secondary experiences."

With the added level of immersion using the Datapad, Deshmame says that if they choose to, visitors can be an active part in their own unique adventure.

"One of the things I enjoy about Star Wars is, yes there are people who are galactic heroes and members of the resistance but there are also people who own shops and people who

■ **Rise of the Resistance** is a massive attraction with multiple ride systems

are mechanics. There are so many stories referenced in different media but this is the first time you get to see regular normal everyday characters.

"It's you in the land. Your actions manifest as your story," she said. "Everyone wants to do something a little different. You might want to go and hack a droid, or hang out at Dok-Ondar's Den of Antiquities and have a conversation with him. It's your choice as to how your story plays out."

Hollywood inspiration

The Galaxy's Edge journey aims to wow visitors and arguably succeeds, with only Universal's *Harry Potter* attractions comparable in the attention to detail placed on the new theme park land. To achieve

this level of 'wow', the Imagineering team took a page out of the Hollywood playbook, creating visuals comparable to a blockbuster movie.

"The journey is built-in everything, right down to the architecture and planning," said Beatty. "When you walk into

■ **Iconic elements** can be found around every corner of the land

the land, we've set these giant vistas, these establishing shots just as we do in film. It was painting after painting of just trying to get that moment right. When you enter the land, we give you a choice. You can go left or you can go right. You take that choice and then we press you back down into a smaller space. You go through an arch, which pushes your visibility down, then we open that space back up and you get another moment of 'arrival'."

While Hollywood might have inspired some of the ideas and techniques, it was purely *Star Wars* that inspired the land itself.

"We decided very quickly that our best approach was not to do a book report and to not tell someone else's story," said Trowbridge. "We instead created an expansive universe that had lots of stories to tell, many of which are still coming, and then working out how to tell those stories through the mediums at our disposal."

"On 5 December we opened a new attraction inviting you to join the Resistance. There are other things coming. You also have books, games and a way that you can tell a threaded experience using all these different mediums. We're just getting started." ●



STAR WARS: GALAXY'S EDGE

The new attraction opened at the end of August 2019 at Disney's Hollywood Studios



Does Disney's multi-billion dollar addition

live up to the hype?
Tom Anstey paid a visit to a galaxy far, far away to find out more...



Galaxy's Edge offers endless photo opportunities for fans

I've been eager to visit Galaxy's Edge since it first opened in May last year, so I came in with very high expectations.

The new *Star Wars* attraction, reported to have cost around US\$2bn to build, is a dream come true for fans of the franchise. Like Universal's *Harry Potter* experiences, the Black Spire Outpost on Batuu offers a chance to explore a real-world made from a beloved IP. Unlike *Harry Potter*, this isn't a recreation, this is a completely new *Star Wars* experience.

There are two nearly identical versions of the land – one at Disneyland in Anaheim, California and the other at Disney's Hollywood Studios in Orlando, Florida. My visit was to Hollywood Studios.

A cinematic experience

Entering from the side closest to the Hollywood Studios entrance, you walk through a large tunnel. As you advance through the tunnel, the hustle and bustle of Hollywood Studios fades away. Rounding the corner, you are greeted by the iconic

X-Wing as the centrepiece of an alien vista. Welcome to "the last stop before reaching uncharted Wild Space" – the Black Spire Outpost on the planet Batuu.

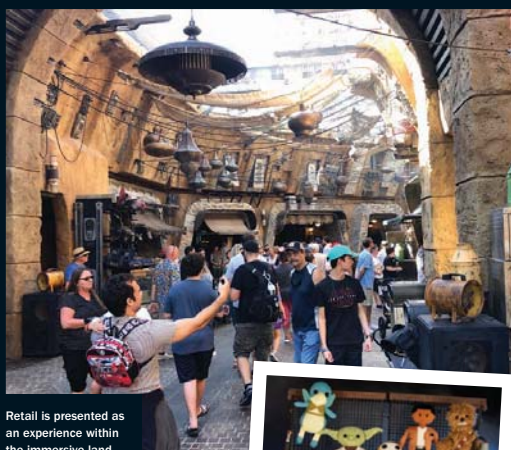
When I visited, Rise of the Resistance hadn't opened yet. The entrance to the ride is on the left-hand side as you enter. As it stood, the area had a few merchandise stands and closed drink stands but remained relatively quiet apart from visitors to the land pausing to take a selfie with the X-Wing.

Galaxy's Edge acts as an invitation to explore. There isn't one single way round, you make the choice of where you want to go. The majority of signs are in Aurebesh – the language of the Galactic Empire – which is amazing in terms of immersion and exploration, but a challenge in terms of navigation.

The Marketplace

My first stop was at the Marketplace – a retail area on the outside – an engrossing and immersive experience on the inside.

Retail experiences probably make up a good 50 per cent – alongside rides and dining – of what's on offer in Galaxy's Edge. Featuring "vendors showcasing wares from across the galaxy", nothing on sale at the Marketplace looks like it wouldn't belong on an alien planet. The first store I entered was an animal store (selling soft



Retail is presented as an experience within the immersive land



It still sold brands such as coke but the logos had been artfully translated into Aurebesh, making it recognisable and alien at the same time

toys and animal figures). In the middle of the store was a cage featuring an animatronic Loth cat, while on the shelves were purchasable animals including porgs, tauntans, wampas and more.

A running theme is that everything on sale felt hugely overpriced. A porg soft toy, for example, would set you back US\$44.99, while a kowakian figure was a whopping US\$69.99.

The next vendor sold handmade toys that looked as though they had been hand made 'on-planet', while the Black Spire Outfitters offered Star Wars clothing. Anyone older than 15 cannot wear their Jedi robes in the park with the official line from Disney being they think cosplayers will be mistaken for actual cast members.

Fine dining

Dining is an experience which can often be overlooked in terms of the overall picture of a themed attraction but that was not the case for Galaxy's Edge.

The snack stand in the market was a prime example of attention to detail and making no elements

Even the selection of food on sale has been themed to have a Star Wars feel to it



seem out of place. It still sold brands such as coke but the logos had been artfully translated into Aurebesh, making it recognisable and alien at the same time.

With the lack of English signposting, I completely missed the Ogoa's cantina, which is a lounge/bar, but I did see Ronto Roasters, a fast food joint which came with a giant towering wheel being used to cook alien meat, and Docking Bay 7, which is where I chose to get a taste of the Black Spire Outpost.

Right in the heart of the action, the restaurant, as its name suggests, looks like a converted spaceship hangar, with everything from the menu to the

bowl I was served my food in creating a story behind my dining experience.

Of the several options available I went for the Endorian Fried Chicken Tip Yip (fried chicken and mashed potatoes in gravy). The presentation was excellent and for fast food, it was good quality, though at US\$20 for a meal and a drink, it felt slightly overpriced.

The main event

After eating, I went to the star attraction – the famous Millennium Falcon, which is home to Smuggler's Run – a simulator offering guests the chance to fly the famous spaceship.



MYSTERY SHOPPER

- The queue for the ride was more than two-and-a-half hours, so I opted for the single rider queue to speed things up. The wait was still around an hour.

After spending quite some time engrossed in Galaxy's Edge, I found myself standing on a flight of stairs next to a fire exit, waiting to ride the big new attraction. There were some games available on the Disney app but not enough to keep someone entertained for that long.

The experience offers three different roles – pilot, gunner and engineer. In the final boarding area – which brings you inside of the Falcon – groups of six are given their role. I was handed the role of pilot. Single riders are assigned empty slots in odd-numbered group. I was sent into the waiting area and told to have a look around. It was only after a minute or so of looking, that I realised there was actually a boarding queue here with groups of six standing together to go on the ride. After a little confusion, I found the group I'd been added to and headed for the cockpit of the Falcon.

Queuing aside, the ride experience – a four-and-a-half-minute interactive



Rise of the Resistance was a later addition to the land

“smuggling mission” – is phenomenal. There were two people working together for each of the three roles. As the pilot, I was in charge of flying up and down, while my co-pilot was flying left and right. We also had moments during the ride where we had to press certain buttons and pull certain levers to, for example, go into hyperspace.

This is probably the closest anyone will ever get to flying the Millennium Falcon for real. It really feels like you are in control and that your actions matter. If you fail to turn or pull up, you will bump into things, if you don't destroy an enemy ship, you're going to take damage and feel the impact. At the end of the

experience, you get a score based on flying, shooting and repairs, breaking down how well each rider did in their role.

The Dark Side

Venturing on, I came across an area occupied by the evil First Order. Of course, there was a store, kitted out to look like a military depot. Prices varied, with a top of the line stormtrooper helmet costing in excess of US\$500.

Parked in this area is one of the First Order's TIE Echelon starships, which in Star Wars canon are used for troop and cargo transport. The area also acts as a live action stage, where Kylo Ren arrives on Batuu in order to track down Rey.

This is probably the closest anyone will ever get to flying the Millennium Falcon for real. It really feels like your actions matter



A life-size replica of the Millennium Falcon is one of Galaxy's Edge's star attractions



The land depicts the presence of both the First Order and Resistance

More Retailtainment

Dok-Ondar's Den of Antiquities was one of the best examples of retail meeting entertainment. Doubling as a Star Wars museum, this "junk store" is filled with treasures and iconic objects from across the entire franchise. A large tank features a baby dianoga – better known as the trash compactor monster from the original *Star Wars* film. Other items on display include an array of helmets, a stuffed Wampa and even an easter egg in the form of the Arc of the Covenant from George Lucas' *Indiana Jones* for really eagle-eyed visitors.

Among the purchasable items visitors can get their hands on are impressive-looking holocron cubes for both the light and dark side.

Nearing the end of my exploration of Black Spire Outpost, I came across the Droid Depot. In this store, guests can purchase and build their own unique droid, with more than 280,000 ways to create an R-series or BB-series using all the available pieces. It features a conveyor belt with different parts that guests use to build their droid before selecting a personality circuit and taking it to an activation centre.

A sense of wonder

The mystery of Galaxy's Edge is both a compliment and a criticism. Unless you are thorough in your exploration, you can very easily miss something.

WHAT'S THE SCORE?

Staff:	9/10
Cleanliness:	10/10
Experience:	9.5/10
Value for money:	5/10
Toilets:	7/10
Overall experience:	9/10

Savi's Lightsabres for example – an experience where you assemble your own lightsaber – is hidden in the land for a reason. In the story of Galaxy's Edge, the Resistance don't want the First Order to know of its existence. Sadly however this meant I too was unaware and missed it.

Navigation can be improved by deciphering the Aurebesh language, which can be translated using the *Star Wars: Datapad* app but if you haven't done your research in advance, there's a good chance you won't know that this is on offer. I downloaded the app on the day, but couldn't get to grips with it (I seemed to be stuck in the Disney Play part rather than the Datapad part) and quickly dropped it in order to focus on the land rather than my phone.

Conclusions

Simply put, this is the best immersive visitor experience I have ever seen.

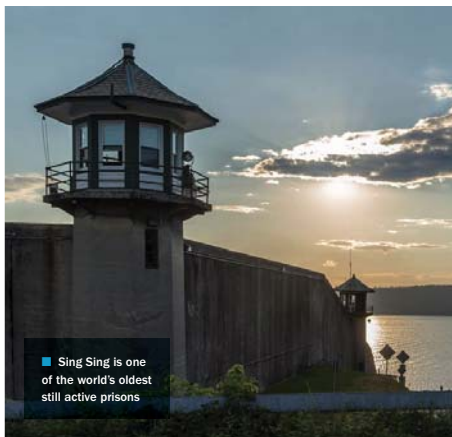
Harry Potter was going to be hard to top but Disney has succeeded with their attention to detail in creating this masterpiece.

The value for money is the only thing that lets it down. Considering the US\$100 per person price tag alone to enter the park, you're looking at an expensive day to live out a full *Star Wars* fantasy. It may have been a costly project but pricing out a park ticket, buying a meal, getting my own lightsabre, building a droid and investing in jedi clothing – what I would characterise as the "full" experience – would have cost in excess of US\$600. Indeed, there are more than 700 unique items for sale through the land. I read to think what the combined total of all that would be.

Of course, spending is optional once you're inside Galaxy's Edge and even without spending a penny, you can still have a great time. With the land however set out largely as a retailtainment experience, you will probably want to splash the cash when you get there.

The addition of *The Rise of the Resistance* has certainly added to Galaxy's Edge. The ride was a couple of weeks from launch when I visited, but reports suggest the queuing experience is much more engaging than *Smuggler's Run*. If you're a *Star Wars* fan with a nice bit of change in your pocket, I highly recommend visiting Galaxy's Edge. You definitely won't be left disappointed. ●

UP THE RIVER



Sing Sing – one of the world's oldest prisons – is about to open a museum dedicated to reforming the criminal justice system.

Tom Anstey speaks to its director to find out more

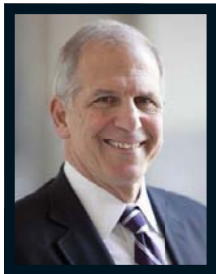
In 1825, the State of New York purchased a large plot of land overlooking the Hudson River.

Covering 526,000sq m (5.6 million sq ft) the site wouldn't become home to a cultural institution however, rather one of the most famous correctional facilities anywhere in the world – Sing Sing Prison.

Still in operation 195 years later, plans are in the works to open a major museum and education centre dedicated to the prison's history and the reform of the US justice system.

"There are a number of important prisons around the country and there are some outstanding prison museums in existence," says Brent Glass, a national leader in the preservation, interpretation and promotion of history, and the project's interim executive director. "Sing Sing is unique because every chapter in criminal justice history has had some of its pages written there both in terms of punishment and in reform."

Glass, the former director of the Smithsonian National Museum of American History, has served as



■ Brent Glass, interim executive director, Sing Sing Prison Museum

a senior advisor to more than 70 cultural and educational institutions across the US, including the Abraham Lincoln Presidential Library, the Presidio Trust and Washington's Diplomacy Center.

For almost five years, Glass' focus has been on Sing Sing, where he's been working to make the US\$50m project a reality.

Prison break

Working closely with the Department of Corrections, the phased project will open up two of the active prison's buildings to the public, telling the story of 200 years of incarceration while also

encouraging visitors to reimagine criminal justice.

Called the Sing Sing Prison Museum, the former Powerhouse, located outside of the prison walls, will be transformed into the museum's "Preview Center", while the prison's historic original cellblock will be made accessible to outside visitors for the first time in its near 200 year existence.

"The Powerhouse provided electrical power to the prison for more than 30 years," explains Glass. ▶

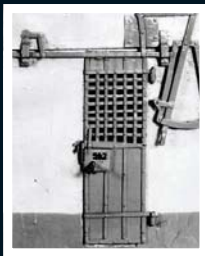
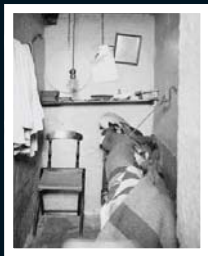


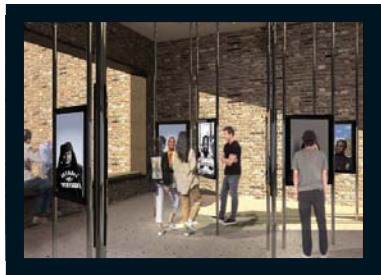
■ Lewis Edward Lawes was a prison warden and a proponent of prison reform

SING SING IS UNIQUE BECAUSE EVERY CHAPTER IN CRIMINAL JUSTICE HISTORY HAS HAD SOME OF ITS PAGES WRITTEN THERE BOTH IN TERMS OF PUNISHMENT AND IN REFORM



■ In the early 20th century, prison reform initiatives resulted in dramatic changes in the treatment of prisoners at Sing Sing





■ The museum is designed to have a positive impact on prisoners, workers, victims of crime and families

- “The other building – the original cellblock – was built in 1825 by prisoners. It functioned as the main residential structure for about 100 years through the 19th and early 20th century. That structure is a ruin now but there’s enough of the building left that we want to bring people in to see this extraordinary, very monumental space that at one point housed 1,200 men and, for a brief time, women.”

Reforming justice

An integrated design team made up of Ennead Architects and Thinc Design, as well as restorative justice and trauma-informed specialists Designing Justice + Designing Spaces, have created the concept plan for the museum, which will also act as a site for programmes on criminal justice and a venue for reentry counselling for formerly incarcerated men and women.

According to Glass, the museum will have two main goals: “We want to tell this extraordinary story of Sing Sing Prison, which covers just about every chapter in criminal justice history. We also want to engage our visitors in contemporary issues concerning criminal justice and hopefully reimagine the criminal justice system in the US, taking action to build a better society.”

“People will hopefully leave thinking about why we have prisons and what their purpose is. We want to leave that question open-ended enough so that when someone comes and learns about the history of Sing Sing, they’re also challenged to think about today’s criminal justice system. They will come away, hopefully, with some new ideas about why we have prisons.”

The Preview Center is expected to be completed by the end of 2020. Covering 2,600sq ft (241.5sq m),

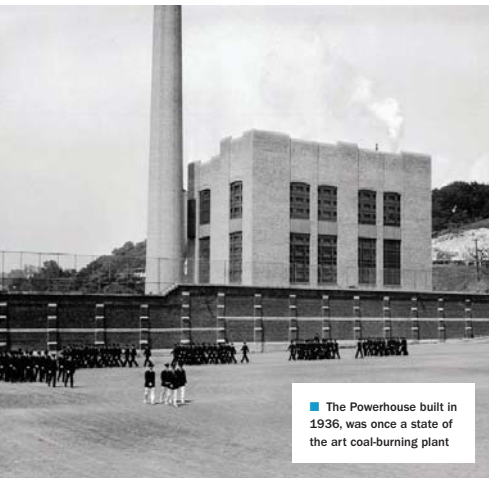
the space will be large enough to house temporary exhibits while introducing a number of key concept to messages to its visitors. In addition to exhibits and programmes, the top floor of the Powerhouse will be dedicated to a conference space entirely dedicated to the criminal justice and reform system.

The second larger phase of development will see the Cellblock made accessible by connecting it directly to the Powerhouse with a 300ft-long (91.5m) tunnel.

“We’re actually going to break into the prison by building this connecting corridor,” says Glass. “The cost of that could be anywhere from US\$7m to US\$10m depending on the materials used and the method of construction. We’re not going to fully restore the cell block, but we are going to make it stable enough so that visitors can come in safely and see this extraordinary monumental space.”

The prevailing form of punishment at Sing Sing Prison followed the “Auburn System” in which prisoners were confined to solitary cells at night and worked silently in “congregant” labour groups during the day. The Cellblock, while completely empty, will tell this story, with technologies such as virtual reality and digital protection being considered to create an immersive experience that allows visitors to better understand what the block would have been like with more than 1,200 inhabitants.

“Right now it’s quite an eloquent, almost Cathedral-like, space. But at one point it was filled with cells in which people were imprisoned,” says Glass. “We want to challenge people’s imaginations – what did incarceration mean 200 years ago compared to what it means today?”



■ The Powerhouse built in 1936, was once a state of the art coal-burning plant

WE WANT TO CHALLENGE IMAGINATIONS - WHAT DID INCARCERATION MEAN 200 YEARS AGO COMPARED TO WHAT IT MEANS TODAY?

An educational approach

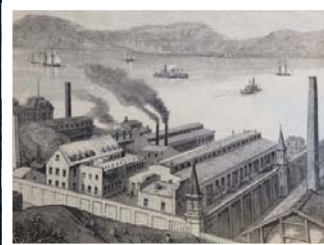
Sites such as prisons often try to appeal to a broad audience as an attraction, with offerings such as ghost tours and horrible histories included. Glass however, doesn't want to sensationalise the subject.

"We don't have to improve on the story of Sing Sing," says Glass. "We want to treat our visitors at a high level and there are some sensational stories already there. Over two centuries, some very high profile men and women were incarcerated at Sing Sing. Probably the most notable from an international standpoint were Julius and Ethel Rosenberg. They were found guilty of espionage during the Cold War period and are the only people in US history ever to be executed under espionage charges.

"We're trying to address a number of constituencies and stakeholders on the presentation of the project. Obviously, there are people who have gone to prison and their families but also the correctional officers and staff members who work at the prison. Another group of people are those who have been victims of crime and survived crime and their families. We're speaking to and consulting with all these constituencies to makes sure that we tell a story that is very nuanced in many ways and complex. We're not taking a partisan position."

Focusing on the real issue behind crime and incarceration, this leads the museum experience down a particular path.

"We want to identify where the criminal justice system works and where it doesn't work," explains Glass. "We want to let people know this isn't a new issue. This has been going on in our national conversation for at least 200 years. What is justice? ▶



■ The prison was built on the east bank of the Hudson River

SING SING TIMELINE

1825

The prison is built by inmates

1826

Construction is completed and Sing Sing officially opens

1890

William Kemmler is the first person in history put to death via the electric chair

1891

The slang expression "up the river" is coined to describe someone in prison or heading to prison (Sing Sing is up river of New York City)

1914

Thomas Mott Osborne is appointed warden and goes on to reform the notorious prison system

1920

Lewis Lawes joins as warden and spends 21 years modernising the prison

1943

The original cell block is closed with its metal bars and doors donated to war effort

1989

Sing Sing is accredited by the American Correctional Association, establishing a set of national standards

2020

Sing Sing houses more than 2,000 inmates, with about 1,000 people working there and 5,000 visitors per month



■ Sing Sing was also the site of the infamous "Death House" where 614 executions by electrocution took place between 1891 and 1963

- What are prisons for? Are they for punishment? Are they for rehabilitation? What happens when someone leaves prison?"

For the community

The museum plan is very much community-driven. From the board to local schools, the Ossining community is getting its say when it comes to the museum's development.

The New York State Department of Corrections and Community Supervision, the body which managed the 1,500 inmates currently held in Sing Sing, is a key partner in the plans. The village of Ossining where the prison is located is also involved along with a number of bodies representing local and state government.

In addition to these bodies, the museum's board – all local to the area – is working with a number of community groups that operate in Ossining and work with prisoners on various rehabilitation programmes.

"There's an organisation called Hudson Link for Higher Education in Prison. They're a group that provides educational programmes for the men at Sing Sing and at other correctional facilities in New York.

"The idea is that many of these people accumulate or earn credit for college degrees. They've been working for the past 20 years with the men in these various institutions. Through the programme, more than 800 people have graduated with college degrees.

"There's another organisation called Rehabilitation Through The Arts, which is a group that produces theatrical performances at Sing Sing and other institutions, giving these men some confidence, morale and skills. Whether or not they actually go into dramatic work outside prison isn't as important as to what they learning as far as their character and development are concerned."

The museum is also developing a criminal justice curriculum for local schools, working particularly with Ossining High School and a neighbouring high school in nearby Peekskill.

"Students are going to be one of our biggest sources of attendance," says Glass. "Most museums have anywhere between 30 and 50 per cent of their attendance coming from student visits, so it's really important to us that we involve students and faculty in the planning of the museum."

Drawing tourists

With projected visitor numbers of more than 130,000 people a year when it opens, the museum could prove a big tourist draw for Ossining, with predicted spending



■ The museum will display the Sing Sing Prison story as it unfolded over time

for Westchester County totalled at US\$24m. Those numbers could increase significantly with the full opening of the museum in 2025, which is easily accessible from New York City.

"We want to have an economic benefit for the local community, encourage tourism to Ossining and want our visitors to stay and go to restaurants and gift shops and visit. It's a beautiful and historic community right on the Hudson River," says Glass.

"Because of its location and because there's always been a sense that we could bring people visiting the state or from New York to this location – It's a very big pool of potential visitors.

"We're going to encourage a number of different ways to visit the site. The trains that run from Grand Central Terminal in New York stop very close to the Powerhouse. It's a 10-minute walk and the train journey is 45 minutes. There's also a ferry from the other side of the Hudson River that stops right in Ossining."

Unlocking potential

So where are we now? "I'd say we're in stage '1A'," says Glass. "We have our plan, we have our finances and we have our vision. We've worked through our mission statement of who we are. Hopefully, by Q2, we'll actually start to see some dirt fly and some construction work begin at the Powerhouse.

"The work isn't going to take very long. We're talking about a relatively small space. We have to do some roof repairs but we don't have to reroof the entire building. We also have to replace some windows. Industrial buildings are very flexible spaces and I'm confident we'll have the museum open by the end of this year.

"All the organisations that are already functioning in the area, including Hudson Links and the dozens that are doing really good work on this subject – will be able to use this institute as a meeting space. We envision events including conferences, seminars, symposiums and lectures taking place at the museum. It will represent a powerhouse of ideas as well as being the Powerhouse of the prison itself." ●



■ Sing Sing has become an infamous icon in popular culture over the years



SUPER AIR RACE

SUPER AIR RACE

The Super Air Race is an exciting new upgrade of the popular Zamperla thrill ride. 24 riders in six, four seater airplanes are hoisted upside down to a height of 14.7m (48ft.). Super Air Race has a high impact aesthetic thanks to the unique movement, world-class light package, and themed capabilities. This ride is sure to draw a crowd wherever it goes!

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THE CARBON CRISIS



If the school strikes, Extinction Rebellion movement, Greta Thunberg and David Attenborough haven't yet had an impact, then surely the uncontrollable fires in the Amazon and Australia must have hit home that the climate crisis needs action from everyone right now. But are the tourism and attractions industries doing enough? Kath Hudson reports...

In light of the challenges facing the world, business as usual is increasingly recognised as a poor business strategy; the majority of consumers no longer want to support companies that don't care about their impact on the planet. Many consumers - particularly millennials, who are projected to spend US\$1.4tn this year - want to support companies that are endeavouring to minimise their impact.

According to research from *booking.com*, 87 per cent of global travellers say they

want to travel more sustainably. Research by World Wildlife Fund in Greta Thunberg's homeland - Sweden - found that 23 per cent of Swedes have abstained from travelling by air in the past year to reduce their climate impact, while train use jumped to a record 32 million journeys.

As the appetite for flying declines, Scandinavian Airlines has had to respond. It's replacing older aeroplanes with more fuel efficient ones, is seeking to use more biofuel and invest in energy projects which generate a compensation equivalent to the

amount of CO₂ emitted, as well as asking customers to pre-book food.

Tourism and attractions can be expensive industries in terms of carbon, but attractions also offer a great way of subtly getting the eco-friendly message across and nudging visitors to make changes. What's more, investing in decarbonising initiatives doesn't have to negatively impact the bottom line.

So what's the way forward? What are the quick wins and longer term recommendations? We ask the experts...



Emma Alesworth

**Eco Attractions Group:
executive director**



**ENERGY PRODUCTION HAS
A BIG CARBON FOOTPRINT
AND THE MORE VISITOR
ATTRactions CAN DO
TO REDUCE ENERGY
COMING FROM FOSSIL
FUELS, THE BETTER**

Fifteen per cent of carbon in the UK comes from cars and we travel more for leisure than anything else – 21 per cent of all distance travelled. So visitor attractions need to start taking responsibility for the carbon footprint from visitors coming by cars powered by fossil fuels, by making it easier to use public transport, or electric cars, as well as investing in carbon offsetting.

By providing multiple charging points, there's an opportunity for attractions to benefit from installing trickle charging units, so visitors stay longer, as well as adding donation buttons.

A number of Eco Attractions' members are now successfully working with Good Journey to promote car free journeys to visitor attractions, including Wildwood Trust in Kent, UK. Blenheim Palace increased the number of car free visits from 5,000 to more than 24,000 in one year, through offering a 30 per cent discount on the ticket price and door to door travel information through Good Journey. The bottom line has not been hit as visits have increased from overseas visitors and those who don't drive.

The café is another place where wins can be made. Ditch single use plastic and offer water fountains, jugs and reusable cups or those made from plant-based alternatives and say no to peat and palm oil. Stopping single procurement chains and sourcing locally can also have a huge positive impact. Offering homemade and vegan options also helps keep the carbon footprint down, as can developing composting facilities.



■ **A number of attractions are working to reduce their carbon footprint**

Energy production has a big carbon footprint and the more visitor attractions can do to reduce energy coming from fossil fuels, the better. Switch to a green energy supplier, or, even better, invest in on site solar, biomass, geothermal or wind generated power. All heating at Pensthorpe Natural Park is from a ground source heat pump from their lake. The Living Rainforest switched to solar panel and biomass heating in 2006, which has halved fossil fuel usage and energy bills and resulted in a saving of 220 tonnes of carbon each year.

Water is another important area to consider. The installation of low flush or dual flush toilets and waterless urinals, cuts down on water usage considerably. If space allows, wetland treatment systems reduce pressure and usage from the water industry and increases on site natural environments, which increases biodiversity and mops up carbon. The National Botanic Garden of Wales also uses wetland treatment systems to water their plants.

Once you have made the changes, encourage your staff to do them at home and, most importantly, tell your visitors about these changes to inspire them. ▶





John Challen

**Centre for Alternative Technology (CAT):
head of eco centre**

Having worked in the museums sector prior to joining CAT and being involved with a number of major projects, I saw that it was common for sustainable energy options and aspirations to be “value engineered” out as the projects progressed.

Twenty years later, this no longer needs to be the case and it's worth taking the long view. Green technology has matured considerably, options have widened and become mainstream and there is also the opportunity to connect with other operators happy to offer their experience. If your attraction is undergoing any type of refurbishment, it makes sense to invest in making it as sustainable as possible. Investments will be clawed back in the future, as a sustainable building should be cheaper to run in the longer term.

Both visitors and funders are keen to know what actions attractions are taking regarding the environment. We've seen attractions operators being driven by legislation to be more robust about health and safety, as well as food and hygiene and I think green credentials will come next. There are various green accreditation bodies, including Green Tourism and Green Keys, and I would recommend an audit.

When reducing the carbon footprint, every area of operation needs to be considered. For example, attractions are very often on large estates which are constantly mowed. Leaving areas to become wild – or planted as wildflower meadows – cuts down on the work for the grounds staff and becomes a resource for mopping up carbon and supporting local biodiversity. If you make this clear to visitors, it becomes an important part of your message.

Sustainability efforts are being noticed not only by visitors but also funders of attractions



IF YOUR ATTRACTION IS UNDERGOING ANY TYPE OF REFURBISHMENT, IT MAKES SENSE TO INVEST IN MAKING IT AS SUSTAINABLE AS POSSIBLE



AN EFFORT FOR SUSTAINABILITY

- **Six Flags** has committed to making all of its properties energy efficient and sustainable with the use of solar energy. Three of its parks are now run almost entirely by solar power: Six Flags Discovery Kingdom in Vallejo, California; Six Flags Magic Mountain near Los Angeles and Six Flags Great Escape in Jackson, New Jersey, which has 60,000 solar panels. This will offset more than 24,000 tonnes of carbon dioxide emissions.
- **Disney** uses LED lighting, has a robust recycling system and sends animal waste to a composting facility. Hotel guests are encouraged to reuse towels and sheets. Reclaimed water is used for 30 per cent of park needs and 80 per cent of irrigation needs. Disneyland's park train is powered by used oil from its restaurants. The company is also involved with a number of charitable conservation projects.
- **Merlin Entertainments** is part of the UK Carbon Reduction Commitment energy efficiency scheme and each year budgets for environmentally focussed initiatives, such as low energy lighting and managing water efficiently. It is working to remove single use plastic from the business and seeking out environmentally responsible businesses through its supply chain.



Kath Cockshaw

**Marks Hall Estate:
director**

It's our long term aim to be a carbon positive site. As a starting point, during the past year we've gone through every area of our operation to look at simple changes we could make for sustainability.

To kick it off, we brought in a sustainability expert who did a presentation about climate change and empowered our staff to make changes. They immediately got on board.

It cost nothing to go pesticide free in the nursery and walled garden and no difference in cost to switch to peat-free compost. The installation of a drip irrigation system in the nursery incurred an upfront investment, but makes better use of water.

In the shop, we've done away with plastic bags and have a new line in eco-focussed stock, such as bamboo keep cups, bee related products and educational books from National Geographic and the Woodland Trust.

In the café, we're going single use plastic free, offering glass bottle fruit juices and canned water. It will cost more but it's the right thing to do. Going forward we will introduce a filtration system so we can offer free tap water.

In the office, we've introduced changes which don't cost anything, but just require a mindset shift, such as printing less, implementing a reduced paper invoice system, using paper clips instead of staples and recycling cartridges from printers and photocopiers, as well as reminding staff to turn off lights and close doors.

In the next two-to-three years, we're starting building projects and plan for these buildings to be carbon positive.

Eden plans to be carbon positive by 2023. The main route to this is via our geothermal project, which involves drilling a 4.5km (2.8mi) hole down into the earth and pumping in cold water, which is heated by the volcanic rocks and returned to the surface at 185 degrees. This will then be pumped through a network of pipes around the site, providing heat to all the buildings. Phase two will involve a second hole, which would provide energy to power 4,000-7,000 local homes, making us a carbon positive business (See AM Issue 4 2019, p20).

On site, we allocate spaces to sequester carbon via wildflower meadows, tree planting and a bog. We compost waste food and don't send anything to landfill. Staff uniforms no longer have microfibres.

People want to experience joy when they visit attractions, so our approach is nudging, rather than preaching. For example, we introduce them to veganism through delicious food choices. On Global Climate Action Day last September, we gave free access to the attraction and every visitor could plant an acorn on site to feel they were making a tangible contribution.

When visiting attractions, everyone has made a journey, will go to the toilet and have something to eat and drink, so those



Gordon Seabright

**The Eden Project:
outgoing CEO**

are three definite touch points to make a difference. Make it easy to arrive via public transport, make the bike parking the closest and make it possible to charge electric cars. Use grey water for toilets. Think about your food – is it fair trade? Is it local?

Remove single use plastics. Bottled water was a no brainer to stop. If you can't do good business you shouldn't be doing business at all. ●

“ IF YOU CAN'T DO GOOD BUSINESS YOU SHOULDN'T BE DOING BUSINESS AT ALL ”



**Wildflower meadows
act as carbon sponges**

NEXT STEPS...

- The drawdown challenge can help you find out which solutions will have most impact on your carbon footprint: www.trustforsustainableliving.org/drawdown
- Eco Attractions Group is happy to give advice to operators looking to reduce the carbon footprint.
- Good Journey will help drive car free visits to your attraction.
- Ecocentricity and Good Energy provide energy purely from renewables.
- CAT has been pioneering heating technology since the 1970s and will give advice.



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TEA THEA AWARDS 2020

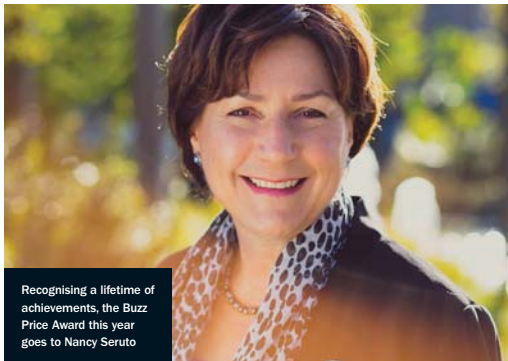
The Themed Entertainment Association's Thea Awards were created to bring recognition to achievement, talent and personal excellence within the themed entertainment industry. Now entering their 26th year, we take a look at this year's winners.



THE BUZZ PRICE THEA AWARD WINNER

**Nancy Seruto, Shanghai Disney
Resort Creative Executive**
Walt Disney Imagineering

"Nancy Seruto brings a rare blend of business acumen and creative talent, plus the ability to lead highly creative and interdisciplinary teams in a way that brings out the best in those around her. She has also been an active leader involved in promoting cultural exchange and supporting initiatives that foster inclusivity. Her 30+ year career has taken her around the world and touched pretty much every discipline and market sector of themed entertainment, including theatre and performing arts, touring exhibits, museums, theme parks, retail, restaurants, live events and casinos." - *Judging panel*



Recognising a lifetime of achievements, the Buzz Price Award this year goes to Nancy Seruto



THEA CLASSIC WINNER:

Pageant of the Masters
Laguna Beach, CA, US

One of the most unique productions in the world, the Pageant of the Masters blends live performance, storytelling and the theatre arts for an experience that has been enjoyed by some 140,000 guests. Taking place every summer since 1933, the show re-creates famous works of art over 90-minutes, with a live narrator guiding the audience through the story of each piece.



Award winners were revealed at the 2019 IAAPA Expo in Orlando, US

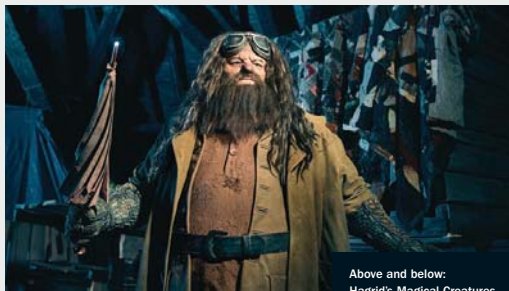


TEA PETER CHERNACK DISTINGUISHED SERVICE AWARD WINNER:

Wendy Heimann-Nunes
Nolan Heimann LLP

Honouring the late Peter Chernack and recognising exceptional volunteer service to the Association, the Distinguished Service Award this year goes to Wendy Heimann-Nunes

The 26th annual Thea Awards will be formally presented in Anaheim, California, this April during the TEA Thea Awards Gala, which takes place during the annual TEA Summit. For more information go to www.teaconnect.org



Above and below:
Hagrid's Magical Creatures
Motorbike Adventure at
Universal and Walibi's
Popcorn Revenge

THEA AWARDS FOR OUTSTANDING ACHIEVEMENT WINNERS:

■ **Attraction**
Hagrid's Magical Creatures
Motorbike Adventure
Universal Orlando, USA

■ **Theme Park**
Warner Bros World Abu Dhabi
UAE

■ **Museum, Limited Budget**
The Cool Planet Experience
Wicklow, Ireland

■ **Family Entertainment Center**
Wonderbox at Paradise City
Incheon, South Korea

■ **Museum Upgrade**
Fram Museum
Oslo, Norway

■ **Museum Exhibit**
The Hebrew Bible
Experience, Museum of the Bible
Washington DC, US

■ **Connected Immersion**
Jeff Wayne's Musical Version
of The War of the Worlds
London, England



■ **Connected Immersion, Limited Budget**
Poverty Encounter,
Children's Hunger Fund
Sylmar, CA, US

■ **Attraction, Limited Budget**
Popcorn Revenge
Walibi, Belgium

■ **Brand Experience**
The Google Assistant Ride,
2019 CES Trade Show
Las Vegas, NV, US

■ **Attraction**
Le Premier Royaume,
Grand Parc du Puy du Fou
Les Epesses, France

■ **Live Show Spectacular**
The Legend of the Gods,
Huaxiacheng Tourism Scenic Area
Weihai Huaxia City, Shandong, China



■ **Attraction**
Millennium Falcon: Smuggler's Run
Disneyland Resort, CA, US

■ **New Park Land**
Star Wars: Galaxy's Edge
Disneyland Resort, CA, US

■ **Technical Innovation**
Christie Eclipse 4K RGB
Pure Laser Projector

BRASS RING AWARDS

The IAAPA Brass Ring Awards recognise excellence from operators, individuals and projects across every sector of the global attractions industry. Revealed at the annual IAAPA Expo in Orlando and considered the industry's most prestigious honour, we take a closer look at 2019's winners.



Top Family Entertainment Center (FEC) of the World

Cinergy Entertainment Amarillo,
Amarillo, Texas, US

Opened in October 2018, Cinergy's 90,000sq ft (8,300sq m) Amarillo Entertainment Center is an FEC offering movies, bowling, laser tag, arcade games, escape rooms and more. It also features multi-sensory interactive attractions such as Hologate and an XD 4D Dark Ride. Including its award-winning Amarillo FEC, the company operates a total of five such ventures across Texas and Oklahoma.

Food and Beverage Excellence

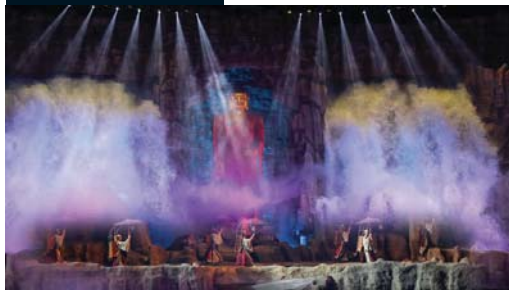
Best New Menu Item – Annual Attendance Less than 1 Million

Unicorn Cotton Candy Tacos,
Jake's Unlimited, Mesa, Arizona, US

Best New Menu Item – Annual Attendance More than 1 Million

BLT Panzanella Bowl,
San Diego Zoo, San Diego, California, US

The Legend of Camel Bells is a dramatisation of Chinese culture



Games and Retail Excellence

Best Plush

Porg,
Disney Parks, US

Best Apparel

Children's Shaun the Sheep Hooded Sweat,
Paradise Country – Gold Coast Australia

Best Hard Good Item

Savi's Workshop – Handbuilt Lightsabers,
Disney Parks, US

Best Visual Merchandising

Droid Depot: Custom Astromech Units,
Disney Parks, US
Build and take home your own droid at Star Wars: Galaxy's Edge (for more see p62)

Best Midway Game Operation

Morey's Piers Game Operation
Morey's Piers and Beachfront Water Parks, Wildwood, New Jersey, US

Judges Award: Best Plush Item

Little Ndaba
Naples Zoo, Naples, Florida, US

Human Resources Excellence

Best Employee Engagement Initiative – Annual Attendance Less than 1 Million

Ferrari World Abu Dhabi
UAE

Best Employee Engagement Initiative – Annual Attendance More than 1 Million

Santa Cruz Beach Boardwalk
Santa Cruz, California, US

Best Employee Reward and Recognition Program – Annual Attendance More than 1 Million

Europa Park
Rust, Germany

Best Innovation in a Training Programme – Annual Attendance Less than 1 Million

Pacific National Exhibition
Vancouver, British Columbia, Canada

Best Innovation in a Training Programme – Annual Attendance More than 1 Million

Whiting's Foods on the Santa Cruz Beach Boardwalk
Santa Cruz, California, US



Morey's Piers won a brass ring for Best Midway Game Operation



Opened to the public in May 2019, Hershey's Unwrapped takes families on a fun chocolate tasting adventure

Live Entertainment Excellence

Best Atmosphere/Street Show Performance/Act

Green Army Drum Corps

Disney's Hollywood Studios, Orlando, Florida, US
A live show at Toy Story Land in Disney's Hollywood Studios, the Green Army Drum Corps are a talented band of drummers who deliver high-energy drum performances. The troops march through Toy Story Land several times per day, playing their percussion instruments as they go.

Best Performer

Annie Huckaba

Dollywood Theme Park,
Pigeon Forge, Tennessee, US

Best Live Edutainment Show

Hershey's Unwrapped

Hershey's Chocolate World,
Hershey, Pennsylvania, US
Opened in May last year, Hershey's Unwrapped offers visitors the chance to see, touch, hear, smell and taste chocolate in an immersive and fun-filled educational experience. Through the journey, a quirky professor takes guests into the chocolate lab, where they can taste some of the brand's most popular chocolates.

Best Theatrical Production: Annual Attendance More than 1 Million

Legend of Camel Bells

Huaxia Cultural Resort - Xi'an,
Shanxi Province, China
Set inside a purpose-built, 3,000-seat, revolving theatre at Huaxia Cultural Tourism resort, the Legend of Camel Bells features stunning stage effects, massive props, extreme scenery, a huge cast, animal actors, a 15m-tall volcano and snow mountain, an 18m-high Buddha and a 20m-high waterfall. All of the action takes place in front of a 4,000 sq m (43,000 sq ft) LED screen with the show telling the story of China's Silk Road.



Paddington on Ice features award-winning international figure skaters

Most Creative Christmas Show

Up on the Rooftop

Hersheypark, Hershey, Pennsylvania, US

Most Creative Halloween

Haunt, Show, or Experience

Below

Walibi Holland, Biddinghuizen, Netherlands

Most Creative Multimedia Spectacular

Dancing Islands

Fantawild International Limited,
Shenzhen, China

Most Creative Property-wide Event:

Annual Attendance Less than 1 Million

Winterfest

Ferrari World Abu Dhabi, Abu Dhabi, UAE

Most Creative Property-wide Event:

Annual Attendance More than 1 Million

SeaWorld Christmas Celebration,

SeaWorld Orlando, Orlando, Florida, US

Most Creative Show Featuring Animals

Sea Lions Tonite

SeaWorld Orlando, Orlando, Florida, US

Most Creative Sports/Stunt Show

Paddington on Ice - the Grand Voyage,

Europa-Park, Rust, Germany
Featuring 18 international figure skaters, Paddington on Ice is a spectacular 30-minute performance based on the beloved children's character, who is on the hunt for his missing secret marmalade recipe.

Spirit Award

Katja Mack

Europa-Park, Rust, Germany

Excellence in Marketing

Best Digital Marketing Campaign

Snake

Gröna Lund, Stockholm, Sweden

Best Integrated Marketing Campaign

Skin Exhibit Integrate Campaign,

California Academy of Sciences,
San Francisco, California, US

Best Outdoor Advertisement

2018 San Diego Zoo Jungle Bells Campaign

San Diego Zoo Global,
San Diego, California, US

Best Public Relations Campaign

Six Flags St. Louis - Coffin Challenge,

Six Flags St. Louis, Eureka, Missouri, US

Best Radio or Streaming

Audio Commercial

Dino Roar Valley

Dino Roar Valley, Lake George, New York, US

Best Social Media Campaign

You Can't Do This At Home Campaign,
Silver Dollar City, Branson, Missouri, US

- Best Television or Digital Video Commercial – Annual Attendance Less than 250,000
Stupet – Where Heroes are Born, Rogaland Fritidspark AS – Kongeparken, Ålgård, Norway

Best Television or Digital Video Commercial: Annual Attendance 250,000 – 1 Million
Be A Kid With Your Kid
Silverwood Theme Park, Athol, Idaho, US

Best Television or Digital Video Commercial – Annual Attendance More than 1 Million
Skin Exhibit Advertising Campaign,
California Academy of Sciences,
San Francisco, California, US

Best Exhibit Awards 2019

IMAGE AWARD WINNER

Bob's Space Racers

Booth Size 100 – 199 Square Feet
Party Cannon

Booth Size 200 – 399 Square Feet
Imagination Corporation

Booth Size 400 – 499 Square Feet
Backyard X-Scapes Commercial

Booth Size 500 – 899 Square Feet
Arihant Water Park Equipment

Booth Size 900 – 1,200 Square Feet
Tree-Mendous Aerial Adventures

Booth Size 1,201 and Larger Square Feet
Bob's Space Racers



WhiteWater's Spinning Rapids Ride is the longest of its kind in the world

Best New Product Exhibitor Awards

Major Ride/Attraction (Product cost less than US\$2 million)
Zamperla, Nebulaz

Major Ride/Attraction (Product cost of US\$2 to US\$5 million)
WhiteWater, Spinning Rapids Ride
Installed in Shanghai Haichang Ocean Park, China, Lava Drifting is not only the longest spinning rapids ride in the world at 1km (0.62mi), but also the world's first spinning rapids ride with actual rapid rivers. The water ride depicts a volcano theme while combining the spins and twists of an exhilarating river rapids journey that culminates with the oscillating movements and steep drop from the wings of a Manta.

Major Ride/Attraction (Product cost of US\$5 million or more)
Intamin, Dueling LSM Triple Launch Coaster - Dueling Dragons
A new rollercoaster from Intamin recently made its debut at Guangzhou Sunac Land in China, with the new dragon-themed addition seeing a suspended and sit-down train duel with each other through the course of the ride. Utilising Intamin's LSM drive system, both trains are simultaneously launched, with five 'near-miss' situations and a visually impressive simultaneous loop, with the sit down train on the inside and the suspended train passes on the outside.

Kiddie Ride/Attraction
Treetop Trekking, TreeWalk Village

Water Park Ride/Attraction (Product cost of less than US\$1 million)
WhiteWater, Tailspin

Water Park Ride/Attraction (Product cost of US\$1 million or more)
ProSlide Technology, Dueling PIPElineBLAST / FlyingSAUCER

Intamin's Dueling Dragons features both a suspended and sit-down train

Technology Applied to Amusements
Dynamic Attractions, Loading / Unloading system

Food Services
VITO Fryfilter, VITO 80 oil filter system - connect

Merchandising and Retail Products
NXT Capture, NXT Spinning Video

Games & Devices (Arcade and Video Games and Equipment)
Bay Tek Entertainment, Connect 4 Hoops

Games and Devices (Midway Games and Equipment)
Bob's Space Racers, Hang Time

Services, Equipment and Supplies
Redemption Plus, Redemption Plus Service Packages

Best New Product Concept Award: Major Ride Attraction
Wiegand Josef, SlideCoaster

Best New Product Concept Award: Major Ride/Attraction
Holovis, Li-Fly
Li-Fly by Holovis uses 5-DOF motion systems that securely hold and tilt 100 guests into a prone position before elevating them over a highly immersive ultra-high-resolution dome. This solution advances and transforms traditional Flying Theatres from passive lean-back seated experiences into active ones that deliver more realistic sensations of flying.

Best New Product Concept Award: Other Product/Service
Gatemaster Technology Corporation, ParkTrainer

IMPACT AWARD WINNER

ProSlide Technology
The Impact Award is presented to a Best New Products winner at the Brass Ring Awards, for a product or achievement that is likely to have the most significant impact on the attractions industry in the foreseeable future. ●



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IAAPA ATTRACTIONS EXPO

The epicentre of the attractions industry welcomed more than 40,000 of its members in November, with delegates from over 100 countries gathered in Orlando for the annual IAAPA Expo. Attractions Management was on-hand to see what was on offer.

Emphasising diversity and highlighting the more than one billion people the industry serves each year, the IAAPA Expo started off in earnest with its Kickoff Event – a celebration of the attractions industry and the people that work in it.

Jonathan Lee Iverson – the last ringmaster the Ringling Brothers and Barnum and Bailey Circus – played host, introducing IAAPA's president and CEO Hal McEvoy.

"You create memories, you create magic, you stimulate economies, and you provide jobs," said McEvoy addressing the audience. "We're lucky to work in a field that is all about making people happy and creating opportunities."

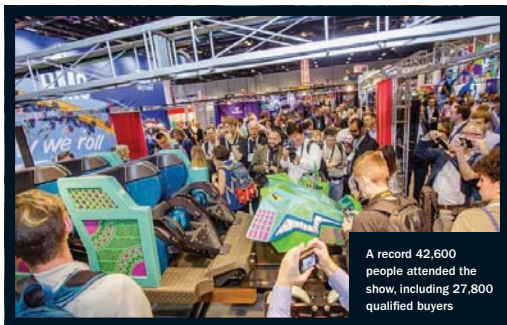
The Kickoff also saw Amanda Thompson officially take up her role as IAAPA chair for 2020, replacing the outgoing David Rosenberg of Monterey Bay Aquarium.

"I've got lots of plans for the year," she said. "I'm going to make a difference, and try and listen to as many people as I possibly can. We have a great future."

Living legends

During the Kickoff, IAAPA added two legendary members of the attractions industry to its prestigious hall of fame.

The first was Frederick Langford, the father of the modern-day waterslide.



A record 42,600 people attended the show, including 27,800 qualified buyers

Before 1978, a waterslide was a concrete chute embedded into a hillside, which had to follow the path of the hill it had been dug into. In 1978, Langford introduced a fibreglass alternative, meaning these flumes could be lifted off the ground and onto wooden supports. Langford's firm, Surf Coaster Corporation, would go on to design and build water slides in more than 50 parks around the world.

"I've had a normal share of accomplishments," said Langford. "But nothing compares with this honour."

The second Hall of Fame inductee is famous around the world for his rides and theme park attractions. When he took over the Zamperla Company in 1994, Alberto Zamperla helped his family business grow from manufacturing 50 rides annually to more than 200. Alberto has also worked to support the global attractions industry, serving as the founder and first chair of the European Suppliers Association (EASIS), which later became the Euro Attractions Show, last year rebranded as IAAPA Expo Europe.

"I'm honoured to receive this award in the presence of so many leaders and colleagues," said Zamperla. "I'm also happy to join past recipients, for who I have a deep admiration and respect."

Honouring service

The opening ceremony also recognised Hank Salemi, park president at Six Flags Great America, with the Special Service Award. For more than five years, Salemi has served on the IAAPA board as its treasurer and chair of the Compensation Committee. The Service Award recognises his commitment and exemplary service to IAAPA, where he was critical in guiding

FUNDRAISING

Celebrating 25 years of partnership, IAAPA Expo attendees raised US\$155,000 for Give Kids The World (GKTW) Village through corporate donations and an annual series of events, including a golf tournament, motorcycle ride, fun run and walk. Since first partnering with GKTW, IAAPA has raised more than US\$1m, helping make magical memories for children with critical illnesses and their families.



■ A 5K run takes place each year



International leaders and decision makers from around the world came together to buy, learn and network



MORE THAN EVER TODAY, PEOPLE VALUE EXPERIENCES
OVER THINGS AND WE'RE SEEING THIS EVEN MORE SO
WITH MILLENNIALS, GENERATION X AND GEN Z

major projects for the organisation, including the relocation of its headquarters to Orlando and the selection of Hal McEvoy as its new president and CEO.

Education

A host of education sessions took place through the week. Carnival Cruise Line president Christine Duffy presented the keynote speech. Duffy shared how the cruise and attractions industries go hand-in-hand, both sectors encapsulated within the "experience industry".

"More than ever today, people value experiences over things," she said. "And we're seeing this even more so with millennials, Generation X and Gen Z."

Three industry experts were on-hand to share decades of experience during the ever-popular CEO Speaks panel.

Margo Manning, COO of Dave & Buster's, thought people should take things slower, saying "if you throw a bunch out there and ▶



HAL MCEVOY

"Our members are focused on important issues such as safety and sustainability and they look to IAAPA to guide the conversation and take positive action.

"We also continue to see more Young Professionals attend the Expo, as members send their up-and-coming leaders to attend the education sessions and learn from industry leaders.

"This year's event had record attendance, many sold out events, and positive feedback from our attendees and exhibitors. The IAAPA team coordinated one of the strongest Expos we have ever hosted."



■ Hal McEvoy has led IAAPA as president and CEO since October 2018

SHOW REVIEW

- ▶ just hope that it works, it puts a strain on your team and leads to inconsistency in terms of the guest experience”.

Ryan Stana, founder and CEO of RWS Entertainment Group said that having a strong vision was the key, allowing employees to move on with their own projects under a guiding principle. “If you feel uncomfortable with that, do specific check-ins,” he said. “Maybe I’ll be there to guide them, or maybe they will be doing so amazing, I’ll tell them to keep going.”

Michael Browning, CEO of Urban Air Adventure Parks, had the final say: “Cared for employees care for your guests,” he said. “Yoga classes and a ping pong table are not caring – those are perks. They’re going to see through that. Understand what makes them tick and show you care.”

Bob Roger’s Legends Panel (see p58), saw Disney Imagineers Scott Trowbridge, Margaret Kerrison, Chris Beatty and Anisha Deshmene speak about the creation of Galaxy’s Edge, revealing how they created a new type of storytelling never-before-seen in theme parks.

Show floor

The largest show floor in IAAPA’s history – much of which spilled out into the car park under temporary housing thanks to its size – this year’s event featured 1,146 exhibiting companies, with more than 585,000sq ft (54,300sq m) of indoor and outdoor exhibition space. 42,600 attendees – 27,800 of them qualified buyers – came together during the week.



Holovis, ETF and Merlin Entertainments unveiled the all-new Lego Factory Ride during this year’s IAAPA show

NBA legend Shaquille O’Neal was the big surprise for the show, with Shaq assisting in the reveal of Bolt, Maurer Rides’ new sea coaster. Set to debut in 2020 on Carnival’s Mardi Gras ship, the ride will offer 700ft (213m) of twists and turns in a vehicle that can reach speeds of up to 40mph. The electric car accelerates faster than a Porsche 9/11, with speed manually dictated by the rider.

Ahead of the launch of Legoland New York on 4 July 2020, Holovis, ETF and



Merlin unveiled the all-new Lego Factory Ride. Using a combination of technologies, the dark ride will turn guests into Lego mini-figures using on-ride HoloTrac technology.

“We’re going to be analysing guest’s hair colours, looking at their hairstyles, deciding whether they have glasses on and the colour of their clothes,” said Holovis CEO Stuart Hetherington. “Then in real-time, they’re going to be transformed into a life-size Lego figure in a seamless experience done as guests pass through the ride.”

Knott’s Berry Farm celebrates its 100th anniversary in 2020. As part of this celebration, representatives of the historic theme park unveiled plans by Triotech to revive its iconic Beary Tales ride, which ran from 1975 to 1986.

A modern rethinking of the attraction, Beary Tales: Return to the fair, is Triotech’s “largest-ever project”, according to its founder, president and CEO, Ernest Yale, “We will be taken through reimagined scenes reminiscent of the original ride,” said Yale. “The goal for us is to capture the spirit, creativity and originality of Knott’s Beary Tales.” ●

IAAPA returns to the Orange County Convention Center from 17-20 November. For more information, visit www.IAAPA.org/IAAPAEpo

AMANDA THOMPSON

“Due to the huge numbers that the Expo attracts we are expanding the size of the event for 2020. IAAPA Expo 2020 will be in the South and West halls of the Orange County Convention Center for the first time. This allows us to have more education session rooms, more special event space and allow for more exhibitors on the tradeshow floor.

“I loved seeing all of the new innovative ideas in the exploration station and I would like to see even more exciting innovations to take us into the 2020s.”





Brazil's Museu Nacional will be transformed following the devastating fire in 2018

SQUARE ONE

In September 2018, a fire gutted the 200-year old Brazil Museu Nacional – the biggest natural history museum in Latin America – decimating its collections. In its wake, the team are rebuilding the institution and planning to create a new model for natural history museums across the continent. The museum's director, Alexander Kellner, speaks to Kath Hudson...

Described by the former environment minister, Marina Silva, as a "lobotomy of the Brazilian memory," the fire of the former palace which housed the Museu Nacional was devastating.

The museum housed artefacts from Egypt, numerous specimens reflecting South American biodiversity, Greco-Roman art and some of the first fossils found in Brazil. Thanks to a faulty air conditioning unit, millions of years worth of history were lost in an instant.

Since the fire, the team has been busy salvaging what they can of the remaining artefacts and focusing on plans to rebuild. However, having lost so much of their collection, museum director, Alexander Kellner is clear that the support of the international museum community, and in particular the donation of original specimens, is needed in order to achieve their aims.

"We now have the opportunity to establish a natural history museum which



Alexander Kellner, museum director

could be a model in South America, but this can only be achieved with international help," he says.

"The international museum community has been very supportive in terms of letters – which we can show to the government to support our cause – but now we're starting the phase where we have to translate some of the letters into action. Germany is helping

a lot and has made many promises, but we would love to have more contacts with foundations and are looking forward to receiving collections of original material."

Exemplary model

A couple of initiatives are in the pipeline to rally the international museum community. In the coming months Kellner will be travelling around the world, talking to other museums about the possibilities of being given exhibits for the new collection.

The team will also be hosting a three-day conference in October. This event will not purely be used to raise awareness and show support for the rebuild,



A huge restoration and recovery effort is currently underway at the museum



Since we've had the fire, we have the opportunity to create a new model for natural history museums

► but to discuss the role which natural history and anthropological museums now have in society.

"We didn't want this, but since we've had the fire, we have the opportunity to create a new model for natural history museums," says Kellner. "We want our new site to be an exemplar model. But also we want to open the discussion about the future role of museums."

"What do museums mean in society? What constitutes a modern natural history museum? What are the demands of society and how can we adapt? What do we do for society and what should we be doing? This is relevant to us because we're rebuilding, but we also think it's useful for others to discuss."

Clean slate

Around 70 per cent of the collections were completely destroyed. As Kellner pointed out in the wake of the fire, the collections were only part of the museum's purpose. It's part of the Universidade Federal do Rio de Janeiro and runs graduate programmes and is involved with important research.

"The museum had three main areas of work - education, exhibition and the generation of science," he says. "We can still generate knowledge."

The restoration of recovered materials should be finished within the next three to four months and the refurbishment of the museum is also due to be finished in March. Obviously safety and security are of prime importance to the new build, ensuring that collections and people are secure.

While the outer façade is restored to its former glory, the interior will have a clean slate to create modern exhibitions. Around US\$5m of funding has been secured for the internal displays and work inside is slated to begin in Q3.

Holograms and interactivity are both on the table as ideas for reimaginings of previously destroyed exhibits but Kellner says the options are very much still open.

"We're still working on how to represent items that were lost and these are all possibilities," he says. "Inside the palace, we have no limits to what we can create. The façade will be restored as it was, but internally, everything will be new."

"We will present the entire history of Brazil, including the emperors and gaining independence from Portugal. But the rest of the content will be new and contemporary, with great interactions and facilities. It will be a modern museum of natural history and anthropology, so we're very excited about that."

New paradigm

Further to the rebuild, a couple of other projects are currently underway. The government has donated 44,000sq m (473,600sq ft) to create a laboratory and a 1,500sq m (16,145sq ft) education centre for children. The plan is for the space to host permanent exhibitions with material which was not destroyed in the fire, to showcase the restoration work, as well as to show temporary exhibitions from other museums.

"We are currently looking for funding for the education centre," says Kellner. "Once we have this, we can move very fast. We would like to have it open in the first semester of next year." Overall, there are plans to launch the new look Museu Nacional this year and open part of the palace to the public in 2022, to time with the bicentennial commemoration of Brazil's independence, which started at the palace.

Despite the sadness, frustrations and challenges, Kellner, says he feels optimistic about the future: "I have a company working on the rebuild. I have a 44,000sq m (473,600sq ft) terrain which will have labs up and running by the end of the year and this is the opportunity to establish a model for what museums in South America could be like, so I'm really looking forward to that. It is challenging, but also exciting. We just need to twist some more arms. And we're waiting for you. Donate some specimens." ●



Artefacts had to be recovered from the ashes of the museum



Some of the museum's exhibits represent millions of years of Brazil's history



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● New galleries tell the story of the Empire State Building and its impact on pop-culture over the last 90 years

Callum Cooper on Empire State Building's new permanent exhibition

Creative digital studio Squint/Opera has completed the final phase of a permanent immersive digital exhibition at the Empire State Building.

Part of the iconic New York building's reimagined Observatory Experience, the exhibit spans more than 35,000sq ft (3,250sq m) and features large scale projection-mapped displays and single-use virtual viewers.

The experience was developed in partnership with design firm Thinc and audio studio

Antfood, with Squint/Opera creating digital elements for more than 40 exhibits.

Using photography combined with 3D models, historic footage and visual effects, the immersive experience allows visitors to step into historic street scenes and scenes featuring the construction of the iconic New York City landmark.

A VR animated film featuring King Kong allows guests to watch as the giant gorilla climbs the Empire State Building. As part of the experience, guests can



● Callum Cooper, Squint/Opera

climb into Kong's hand, which rumbles in sync with his roars.

"The Empire State Building's Observatory Experience exhibition was ambitious from start to finish," said Squint/Opera director Callum Cooper. "It gave our creatives the opportunity to collaborate with historians and top film talent to create an experience which brings together the physical and the digital."

ATTRACTIONS-KIT KEYWORD

SQUINT/OPERA

● Geppetto enables park operators to offer 'live' animated shows where the animated characters are able to interact in real-time



Super 78 partners with Microsoft on real-time animation platform

Super 78 Studios, a media-based attractions design firm based in Los Angeles, US, has partnered with Microsoft Surface to launch Geppetto v. 2020 – an updated version of the company's existing Geppetto software.

A real-time animation platform, Geppetto enables operators to offer 'live' animated shows where the animated characters are able to interact with guests without the need for motion capture suits.

The technology has been used to power a number of live interactive character experiences around the world, including

Donkey Live! at Universal Studios Singapore and The Smurfs Village Playhouse at Motiongate Dubai.

Designed to be more user-friendly, Geppetto v. 2020 – which is powering 20,000 Leagues Under The Sea: An Interactive Adventure attraction at Moody Gardens amusement park in Galveston, Texas – has an improved user interface, which gives performers fingertip access to their character, giving them more control over their interactions.

The guest experience has also been improved, with Geppetto v. 2020 offering realistic graphics and extreme visual effects in



● Dina Benadon, Super 78

real-time, as well as choose-your-own-adventure storytelling.

"Today's consumers expect immersive experiences in everything they do and we created Geppetto to deliver on that expectation with some of the world's most beloved animated characters," says Dina Benadon, CEO of Super 78. "The fact that we were recognised by the Microsoft Surface team as innovators makes me very proud of the millions of smiles we've delivered."

ATTRACTIONS-KIT KEYWORD

SUPER 78

Digital Projection delivers journey through time at St Stephan's Cathedral, says Mark Wadsworth

St Stephan's, a Baroque cathedral in Passau, Germany, celebrated its 350-year history with Symphony of Light and Sound – a spectacular video mapped show, projected onto the cathedral's façade.

The cathedral, which was built in the 17th century, has its story told through the multi-media show, which chronicles its entire history.

It was delivered by German company GF Bühnenfabrik and is powered by Digital Projection's M-Vision Laser 18K – a single-chip DLP projector that offers



● Mark Wadsworth, Digital Projection

an output of 18,000 lumens and 10,000:1 contrast ratio.

"Thanks to its high brightness output and performance, a single projector was able to map the entire cathedral to deliver a pristine show, which exceeded the expectations of the organiser," says Mark Wadsworth, VP of Global Marketing at Digital Projection.

The projector was designed to be used as a large-screen solution for installations and events, where ample light output is required. It features a motorised zoom and focus, as



● The show is powered by an M-Vision Laser 18K projector

well as a DisplayPort capable of accepting frames up to 60Hz, HDMI 1.4 for Frame Packing and Top Bottom 3D formats.

ATTRACTIONS-KIT KEYWORD

DIGITAL PROJECTION

Holovis' Heidi Pinchal announces Discovery partnership

Discovery Destinations, a leader in real-world entertainment, has announced a new strategic partnership with UK-based experience design firm Holovis.

Holovis will act as a technology partner for the company and will add new dimensions to its existing experiences, through the implementation of multi-sensory and immersive effects, as well

as creating new immersive experiences designed to inspire, inform and entertain.

"Through this partnership, we're aiming to engage all five senses to deliver sensational experiences that have never been done before with our content," says Christine Wacker, VP of Location Based Entertainment at Discovery. "This will make the experiences even more powerful and ultimately memorable."

Holovis will deliver scalable turnkey solutions combining AV, intuitive interactivity and emerging technologies across Discovery's entire entertainment portfolio, which includes themed entertainment spaces, hotels, live shows, exhibits and cruise ships.

"We will also be looking at ways to extend and enhance the experience even further utilising our proprietary software suites such as HoloTrac,"



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● Holovis will supply turnkey solutions for Discovery

says Heidi Pinchal, business development at Holovis.

"Guests are identified through a powerful attribute recognition engine and their personalised adventures are driven through modules including gesture and object recognition. This allows frictionless and intuitive interaction with the space to enjoy nonlinear narratives and experiences.

"By putting them in control

of their own adventure they can influence the virtual world around them for experiences that different every time depending on their interests, mood and how they choose to engage."

ATTRACTIONS-KIT KEYWORD

HOLOVIS



● Heidi Pinchal, Holovis

S&S's Josh Hays says new Axis Coaster offers rider experience 'unlike any other'

US roller coaster manufacturer S&S Worldwide has announced the launch of the Axis Coaster – its new rotating rollercoaster.

Using 4D vehicle technology, the new ride rotates guests around the track to make them feel like they're flying. It also features customisable layouts

that can be adapted to suit space restrictions and can be configured as either a thrill ride or a family-friendly coaster.

"This ride offers an experience unlike any other to its riders," says Josh Hays, executive director of Sales at S&S. "The Axis coaster rotates around the axis of the track. That means that the rider could be above the track, below the track or swinging out to either side. Riders will be surprised by the way the train twists and turns, and our engineers at S&S have ensured that the vehicle will do exactly what it's designed to do."

Preston Perkes, director of administration at S&S, added: "This ride has been in the works for three years now. It



● Josh Hays, S&S

started as a concept from one of our employees and evolved to what we are bringing to the market today. There are things you will be able to do on this coaster that you can't do on any other ride in the world."

ATTRACTIONS-KIT KEYWORD

S&S WORLDWIDE

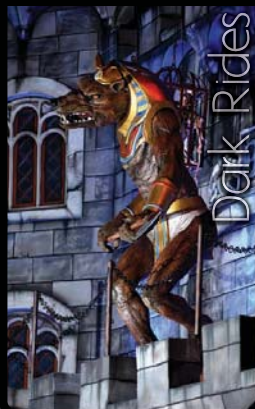


● The Axis Coaster was launched at the IAAPA show in Orlando

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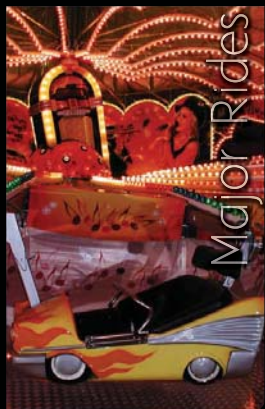
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Dark Rides



Bumper Cars



Major Rides

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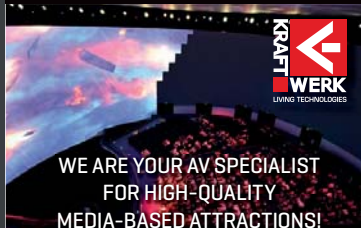
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