SARAH ROOTS

Applying lessons learned in London to the Harry Potter Studio Tour Tokyo
40 years

OF TRANSFORMATIVE, HUMAN EXPERIENCES.
BRC Imagination Arts is a full-service, strategic design and production company that translates brand and cultural stories into transformative, human experiences. For 40 years, we’ve stood on the front lines, helping our clients build more meaningful, enduring relationships with audiences around the globe.

Our unique body of work has earned us over 400 awards for some of the most respected and acclaimed brand and cultural destinations in the world.

Learn more: www.brcweb.com

Rock and Roll Hall of Fame | Cleveland, Ohio
CREATING INSPIRING DESIGNS

We create engaging entertainment experiences.

FORREC.COM
Nine months have passed since the murder of George Floyd ignited the Black Lives Matter movement, causing many to pause, reflect and commit to change.

BLM didn’t make demands – protesters were simply saying, this is a catastrophic problem but not of our making, we’ve done nothing wrong. What are YOU going to do about it?

The global response was immediate and unprecedented, with organisations, private individuals and corporations promising change.

Museums found themselves facing hard questions: had they been founded or funded by slave owners? Were collections gathered during colonial plundering? Were they displaying human remains?

These soul searchings have led to initiatives to right wrongs and on page 34 we investigate actions being taken by museums around the world in relation to BLM and hear their views about the challenges ahead.

Many BLM protests focused on the statues of controversial figures, with repeated calls made for them to be destroyed or ‘put in a museum’.

This has raised questions about how we deal with objects associated with slavery and racism and the role museums will play.

Some governments have passed legislation to protect historic monuments, while acknowledging their past, with an instruction to ‘retain and explain’, rather than destroy, in all but the most ‘exceptional circumstances.’

However, many museums are baulking at the idea of becoming ‘dumping grounds’ for artefacts associated with racism and prejudice.

A new review from Historic England has revealed the extent of this challenge in just one country. Commissioned in 2020 and published in February 2021, The Transatlantic Slave Economy and England’s Built Environment traces hundreds of associations between the slave trade and monuments, people and buildings, to guide the way history is honestly recorded and interpreted.

Museums have a vital role to play in this process of reparative history and we must find a balance between removing artefacts that cause distress and whitewashing history.

The way histories are retold will also enable museums to be responsive to the needs of diverse audiences – in some cases, telling their stories for the first time – as professionals in the museums sector work to address this complex challenge.

Liz Terry, editor, @elizterry

We must find a balance between removing artefacts and whitewashing history
05 Editor’s Letter
Liz Terry takes a look at where the attractions industry is in 2021

10 People: Brent Bushnell
Two Bit Circus has pivoted to an innovative online model aimed at keeping its community in touch

12 People: Michel Linet-Frion
After decades creating for Disney, Grévin and Center Parcs, Linet-Frion has launched his own consultancy

14 People: Anthony Rawlins
The Digital Visitor CEO explains a new whitepaper on how attractions can survive 2021 and beyond

16 News
The latest news across science centres, museums, waterparks, zoos and aquariums, theme parks, visitor attractions and more

26 Sarah Roots
Warner Bros’ Sarah Roots shares exciting details of the second Harry Potter Studio Tour, set to open in Japan in 2023

34 Black Lives Matter and museums
Many museums expressed solidarity with the Black Lives Matter movement, but is it leading to actual change? We ask the experts

44 Alone with Vermeer
The Mauritshuis in The Hague has allowed visitors one-to-one time with Vermeer’s View of Delft, ‘the most beautiful painting in the world’

46 Into the deep
Merlin and the Sea Life Trust share the highs and lows of the epic journey to get two whales to their new home in the world’s first beluga whale sanctuary in Iceland

54 Sea change
Edge Innovations’ incredibly life-like robot dolphins could spell the end of marine mammals in aquariums, says CEO Walt Conti
58 Bob Rogers
As BRC Imagination Arts celebrates 40 years in business, its founder celebrates his team’s achievements

66 Bringing digital to life
Extended reality technology provides opportunities to connect with audiences in amazing new ways

74 Phil Hettema
The Hettema Group president on weathering the pandemic and creating powerful experiences

80 Award season
A celebration of the winners from the TEA’s recent Thea Awards

82 Tough art
A Pittsburgh museum is challenging artists to create displays tough enough for an audience of children

86 Dorte Mandrup
The Danish architect is designing the Exile Museum in Berlin and a climate change museum in Greenland

92 Linda Dong
China Leisure’s president talks about partnering with Nickelodeon

94 Product round-up
TechnoAlpin teams up with Swarovski and a jaw-dropping Star Trek LED display in China
Terry Stevens gives a unique insight into 50 of the world’s great tourist destinations focusing on how they are successfully managed in this competitive marketplace.

“This is not a typical brochure language-driven, promotional bucket-list guidebook. Stevens gives these destinations real world context. He tells us its personality, its mood and not just the reason for being but its reason for resilience, perseverance and ultimate success.” Peter Greenberg, CBS News

Paperback • 250 x 200mm • 224 pages
ISBN 9781913134952 • RRP £20

20% OFF AT WWW.GRAFFEG.COM WITH CODE: LM20

www.graffeg.com
+44 (0)1554 824000 • sales@graffeg.com
Since its launch in 2012, Two Bit Circus has aimed to bring people together “elbow-to-elbow to play, eat, drink, and generally experience life at the highest resolution.”

Now – at a time when the COVID-19 pandemic means that elbow to elbow socialising is a long way from most people’s realities – the team behind Two Bit Circus have pivoted to an online model which enables them to continue to bring the Two Bit community together.

“It’s really been a weird, hard, traumatic time,” Brent Bushnell, the son of Atari co-founder Nolan Bushnell, told Attractions Management. “Our doors have been closed since March, but we’ve learned that we’re not just a location-based entertainment company, we’re a social entertainment company. Online was always on our roadmap, but it just wasn’t a priority yet. Closing the park made it a priority; we pivoted instantly. With our new Remote offering, we now have a whole online product line that’s so much fun.”

Launched by engineers Brent Bushnell and Eric Gradman, Two Bit Circus started by creating interactive experiences and brand activations for festivals and corporate events. STEAM Carnival followed, a touring, pop-up-style event with the aim of creating a positive narrative around the STEM subjects (science, technology, engineering and maths) with the addition of art (the A in STEAM), which helped to combat the ‘boring’ stigma of traditional STEM subjects and encouraged “creative, out-of-the-box thinking necessary for engineers and future inventors”.

Entrepreneur and engineer Bushnell has pivoted Two Bit Circus to digital

Online was always on our roadmap; closing the park made it a priority

Brent Bushnell Co-founder, Two Bit Circus
The event, which reimaged the traditional carnival using “robots, fire and lasers,” kicked off in Los Angeles and San Francisco, before expanding worldwide in 2019.

In 2018, Bushnell and Gradman launched the first of a planned series of micro amusement parks in Los Angeles, providing a permanent home for a range of immersive entertainment games and experiences. Attractions at the 40,000sq ft entertainment complex include a range of immersive adventures such as story rooms, arcade games, private gaming lounges, a games arena and Club01 – described as a “100-seat interactive game show theatre.”

**TWO BIT REMOTE**

With the park closed and the Two Bit team working from home, “the crew went a little stir crazy and channelled their excessive energy into building a platform full of fun games that could bring people together,” says Bushnell.

The Remote offer is a play-from-home show emceed live by an experienced Two Bit Circus human host and “state-of-the-art GameShowBot3000”. Together they lead players through a variety of games with “hilarious commentary and special guests, selecting lucky players to join live on the air alongside the at-home audience.”

“We built the whole thing from scratch, using some existing tools including Youtube and Amazon’s Cloud, but the software and the game experience is all of our original creation,” said Bushnell. “As well as the public shows – which run every Thursday on a variety of themes – we’re running private shows for teambuilding, birthdays and conferences.”

Two Bit Circus has also created Remote White Label so the software can be used and customised by others, and recently signed its largest white label customer, US family entertainment centre company Main Event.

The company is also scouting possible locations for more micro amusement parks across the US.

“As we perfect the one in LA, the opportunity to move fast with our expansion will become very real,” he said. “Ultimately, I could see room for 100 Two Bit Circus micro amusement parks in the US and 200 in Asia.

“This is a tragic moment for the locations based entertainment industry, but for those that survive there will be unbelievable opportunities on the other side.”

Brent Bushnell and Eric Gradman launched Two Bit Circus in 2012 (above). The LA park opened in 2018 (below)
After more than 30 years in the leisure and attractions industry working for Walt Disney Imagineering, Pierre & Vacances-Center Parcs, Grévin & Cie and Compagnie des Alpes, architect, designer and concept innovator Michel Linet-Frion has launched his own global consultancy firm. Studio Concepts and Innovations provides consultancy and design services for eco-friendly and storyline-led family leisure destinations and resorts.

“I’ve been intensively involved in designing world class attractions that create long lasting emotions and memories for many years,” Linet-Frion told Attractions Management. “My main aim is to trigger imagination – I want to make people happy, to give them the opportunity to disconnect from their daily life and reconnect with those they’ve chosen to visit our destinations with. “Nature is part of my signature philosophy; we care for her, she cares for us.”

GOING IT ALONE
With his new venture, Linet-Frion says he will use his expertise to help clients create memorable and original experiences.

“From the initial concept to the opening day, I can support developers at each stage of the process, providing the advice and expertise necessary to transform their visions and dreams into destinations,” he said. “I will make it simple for them, allowing them to focus on the big picture while I stay focused on the details.”
“To accomplish this, I’m assembling and partnering up with leading worldwide specialists in all fields to make sure all ‘our’ creations become success stories.”

THE DISNEY YEARS
After training as an architect, Linet-Frion deviated from classic architecture early on in his career when he joined Disney to help translate its concept for the European market. After eight years as a Disney Imagineer, he left for Parc Asterix, where he was in charge of developing concepts and masterplans for newly-acquired family entertainment sites. A range of other projects followed, including the reinvention of the St Malo Aquarium, the design of the award-winning Nautibus underwater ride and the Grévin wax Museum.

In 2006 he joined Pierre & Vacances-Center Parcs, where he worked as creative director, developing new sites and innovations for the company. After working for Center Parcs for almost 15 years, Linet-Frion said he’s ready for a change. “I’m not past-orientated; I like the future. I’m ready for the next new adventures and surprising encounters,” he explained.

AREAS OF EXPERTISE
Studio Concepts and Innovations provides consultancy and design services for eco friendly and storyline-led family leisure destinations and resorts. “Indoor waterparks and wellness centers are among my favourite specialties,” said Linet-Frion. “Family Fun Centers are also what I enjoy putting together because I like to surprise and go beyond the expectations of those that will come and enjoy them.”

LOOKING AHEAD
“My dream project is always the next one,” Linet-Frion said. “I’ve acquired a lot of expertise, allowing me to free up my imagination. “My international experience and never-ending desire for travel and discovery have given me deep insight into a wide variety of local cultures and atmospheres around the world. This diversity of experiences led me to a very specific, blended approach to the guest experience: staging it based on storytelling and authenticity above all. “The older I get, the more I hate anything fake. I hate fake people. I hate fake plants. I hate fake political situations,” Linet-Frion concluded. “My strongest driver in all I do is a quest for authenticity.” ●
or all the pain and misery the pandemic has wrought on our sector, it’s presented a major opportunity to permanently change and improve it,” says Anthony Rawlins, CEO of Digital Visitor.

“There are countless opportunities to kick-start this evolution, and it’s not change for change’s sake – it’s based on what consumers actually want, and what your businesses actually need.”

With this in mind, Digital Visitor has written a whitepaper, titled *An Industry Renewed*, to equip attractions with insights and ideas that will drive success in 2021 and beyond.

**AGILITY AND SHORT-TERM FOCUS**

“They say ‘necessity is the mother of invention’”, says Rawlins, “and, as an industry, we proved that in 2020. Think of those apps to order food and drink in pubs and museums creating digital tours and experiences. All that happened very quickly by focusing on the problem, identifying a short-term fix, and nimbly solving it with a ‘test and learn’ approach.

“It’s important to realise that in 2021 and beyond, we’ll need to keep hold of this ability to be agile and make it an integral part of our day-to-day business. When you think about what’s changed in the industry in the last 10 years, and what’s going to happen in the next two years, we need to prepare ourselves for continuous change. We have to embrace the mindset and approach to innovation that has enabled us to adapt to the current situation so quickly.”

**DIGITAL MARKETING**

“In March 2020, Digital Visitor surveyed 50 UK visitor attractions of all shapes and sizes and found the average marketing budget allocated to digital was around 25 per cent,” explains Rawlins. “Since then, there’s been a rapid and seismic shift in how marketing budgets are allocated in some previously resistant segments, and attractions are up-ending their budgets, spending more of it on digital marketing.

“This has many benefits – especially in the uncertain world we’re in right now. Firstly, it’s immediately optimisable. If it’s not working that day, you can change it. Secondly, you can turn it off instantly if something happens – you’re not committed to months of budget. If someone clicks on an ad, you know. If someone opens an email, you know. If someone visits a landing page then books, you know.

“In this context, digital marketing offers more visible and measurable value than traditional forms of marketing.”

This shift towards doing more digital marketing goes hand-in-hand with digital transformation, explains Rawlins: “If you offered booking by email or phone pre-pandemic and then shifted to online booking during it, will you (and more importantly, your customers) want to go back to the old ways after a vaccine arrives and normal service resumes? I seriously doubt it.”

**STAYING AND SPENDING LOCALLY**

“Over the next 12 months, we’ll all spend more time locally, which presents a great opportunity for attractions,” says Rawlins. “We don’t know how long lockdowns will last, so we’re not going to plan our six-hour trip to see our family, as we might be confined to quarters – or they might be.

“If we want to get away for a few days, it makes sense to look within an hour of where we live. Yes, it’s still relatively local, but given our confinement, it will still feel different enough and, no doubt, a world away.
“This desire to stay and spend locally opens up another opportunity by way of loyalty and membership programmes. For example, if an attraction offers people within 10-15 miles loyalty points every time they spend on food and drink, I guarantee they’ll pick up good local advocates in 2021. These loyalists are not only perfectly situated to keep coming back, but they’ll add extra clout to any local marketing.”

**SHORTER BOOKING CYCLES**

“When restrictions were lifted in summer 2020, hundreds of thousands of people went mad booking holidays, which proves that you need to be ready for this latent demand because it will explode again, as people will want to book once things open up,” says Rawlins.

“Consumers are being clever about how they plan their trips and will be making travel decisions based on the most recent recommendations, meaning their booking cycle has shortened to just a few days and in some cases the same day. When restrictions are eased, focus on encouraging visits in the immediate and near-term.”

**EXPERIENCE EXPLOSION**

“The ‘experiences’ market is set to take off like never before in 2021. Even before the pandemic, people were buying more of them and were happy to pay handsomely for the privilege,” says Rawlins. “Providing special money-can’t-buy-moments will exceed customer expectations and build confidence in what you’re offering, which in turn, raises the perception of value. I think the attractions market will rebound spectacularly as soon as it’s able, as we place an even higher value on the experiences we buy.”

Read the whitepaper at:
www.attractionsmanagement.com/digitalvisitor
**THE NETHERLANDS**

BRC to design new World Food Center

Experience designers BRC Imagination Arts (BRC) has been selected to design and produce the World Food Center Experience in Ede, the Netherlands.

The attraction will become an interactive platform exploring the impact of the world’s food choices and the importance of sustainable and healthy food production.

BRC’s concept will take guests on a personalised journey that will “challenge what they know about how food is produced and consumed, worldwide”.

The design will also look to encourage social discussions among visitors – and their communities – about the impact of the world’s food choices, climate change, and the importance of sustainable food production.

BRC is working with its Dutch partners, Heijmerink Wagemakers, key stakeholders from the World Food Center, the Netherlands government, the regional Foodvalley business community, research institutions and non-governmental organisations (NGOs) to design and build the immersive experience.

“The world needs to have these conversations about sustainability and we’re thrilled to be creating a platform for this dialogue,” said Brad Shelton, creative director at BRC.

More: [http://lei.sr/U8u3M_T](http://lei.sr/U8u3M_T)

**UK**

We The Curious to open biggest exhibition post-lockdown

We The Curious science and arts centre in Bristol, UK, will open the doors to its largest ever exhibition – as soon as COVID-19 measures are lifted.

Inspired by questions from the people of Bristol, the new What If? exhibition consists of 68 new exhibits and 25 art pieces clustered around seven questions on different themes.

It is marketed as the first major science centre exhibition in the UK which is centred on the curiosity of a city.

Designed by exhibition specialist Kossmanndejong and engineered by Bruns, ‘project What If?’ has been supported by a £3m grant awarded by the Inspiring Science Fund – a partnership between UK Research and Innovation (UKRI) and The Wellcome Trust.

“This is the biggest exhibition we’ve undertaken in our 20 years, which would be a challenge at the best of times, let alone during the pandemic lockdown,” said Donna Speed, CEO of We The Curious.

“It’s incredible that we’re ready to re-open despite the odds being stacked against us – I’m so proud of the team at We The Curious.”

More: [http://lei.sr/T6m3v_T](http://lei.sr/T6m3v_T)

We need to have these conversations about sustainability

*Brad Shelton*

**PHOTOS: WE THE CURIOUS**

*We need to have these conversations about sustainability*

*Brad Shelton*

**PHOTOS: WE THE CURIOUS**

*The exhibition is based on 10,000 questions by Bristolians*
A new virtual reality (VR)-based, interactive gaming attraction is set to launch in the West Midlands, UK during 2021.

To be operated by Atmos VR, the site will offer a multiplayer-type experience and be the first of eight locations planned across the country.

Atmos VR was founded by entrepreneur Kevin Blair and supplies “creative solutions in a virtual world”. Blair is also president of the Birmingham Chapter of the VR/AR Association.

The funding for the venture will come from Insight Media Fund, which is investing in a portfolio of digital media and live event entertainment ventures. It looks to invest in “single-purpose businesses which can provide capital growth”.

Kevin Blair, MD of Atmos VR, said: “Our aim is to bring creative content to life using the latest immersive technology, constantly evolving VR and beyond and pushing the experiential boundaries of immersive experiences.”

The first, West Midlands site is set to open in early 2021 and was picked by public entertainment specialists Britton McGrath Associates.

More: http://lei.sr/El4N7V_T

Meow Wolf creates mind-blowing Omega Mart

Omega Mart, a permanent visitor attraction and art installation built by Meow Wolf, is set to open in Las Vegas, US, this month (February 2021).

The attraction, dubbed “America’s most exceptional supermarket”, is located at Area15 – an experiential, 200,000sq ft retail and entertainment centre – and will feature more than 250 art projects created by 325 artists.

In total, Omega Mart will house more than 60 unique environments that include installation-filled rooms, terrains, and “portals to other worlds”. According to Meow Wolf – an arts and entertainment company famed for creating large-scale immersive art installations – the attraction will “transform family vacations into mind bending adventures”.

“Omega Mart is not a show, or an arcade, or a museum – and yet, it’s all of that and more,” Meow Wolf said.

“It is family friendly, open to humans of all ages – and that includes inner children.

“You might find yourself in a warehouse-sized playground, with slides bigger than your house.

“Or going through a real-life looking glass, into another world entirely.

“Think of the greatest amusement park you’ve been to – with a Vegas-style twist.”

More: http://lei.sr/6Wv4D_T

You might find yourself in a warehouse-sized playground, with slides bigger than your house

Meow Wolf

Interactive ‘free roaming’ VR experience to launch in 2021

A new virtual reality (VR)-based, interactive gaming attraction is set to launch in the West Midlands, UK during 2021.

To be operated by Atmos VR, the site will offer a multiplayer-type experience and be the first of eight locations planned across the country.

Atmos VR was founded by entrepreneur Kevin Blair and supplies “creative solutions in a virtual world”. Blair is also president of the Birmingham Chapter of the VR/AR Association.

The funding for the venture will come from Insight Media Fund, which is investing in a portfolio of digital media and live event entertainment ventures. It looks to invest in “single-purpose businesses which can provide capital growth”.

Kevin Blair, MD of Atmos VR, said: “Our aim is to bring creative content to life using the latest immersive technology, constantly evolving VR and beyond and pushing the experiential boundaries of immersive experiences.”

The first, West Midlands site is set to open in early 2021 and was picked by public entertainment specialists Britton McGrath Associates.

More: http://lei.sr/eSn7V_T
Work begins on €110m indoor waterpark at Liseberg

Building work has begun on a new year-round, indoor water park at Swedish theme park Liseberg in the city of Gothenburg.

The €110m park – called Oceana – is the second part of Liseberg’s expansion project, marking the park’s centennial in 2023.

The theme of the park has been inspired by Gothenburg’s history and the Swedish East India Company – combined with Liseberg’s own unique DNA.

Designed by Swedish architects Wingårdhs, the park will cover an indoor area of 13,600sq m and a further 4,000sq m outdoors. It will have a capacity of 1,750 guests at any one time.

In total, the park will feature 14 separate attractions designed and manufactured by WhiteWater, ranging from toddler pools to thrill rides.

Oceana is set to open in Q1 2024 and will complete the second phase of Liseberg’s planned expansion.

“We live in highly uncertain times, but both Liseberg – and our industry – will get through the crisis caused by the COVID-19 pandemic,” said Andreas Veilstrup Andersen, CEO of the Liseberg Group.

“The Liseberg expansion project does not just represent an investment to counter this crisis – but an investment in Liseberg’s next centennial.”

More: http://lei.sr/f7W7m_T

Paul Chutter named president of WhiteWater

Waterpark design specialist WhiteWater has named Paul Chutter as its new president. Paul is the son of founder and CEO, Geoff Chutter and has spent the past seven years with the business – primarily as chief business development officer. He has been instrumental in bringing WhiteWater’s technology company, Vantage, to market and is also founder of Endless Surf, which focuses on the surf pool market.

While Geoff Chutter will step down as president, he will retain his role as CEO.

“What we do, together with our clients, is very significant – we make moments that bring families together, something everyone recognises and values more than ever after the past year,” Paul Chutter said.

“To be able to work alongside my father and ensure that continues long into the future is a huge responsibility and honour.”

Geoff Chutter added: “It’s with tremendous pride I see Paul step into the role of president. I know that we have the best team in the industry and together we will continue to work tirelessly and deliver the very best products and guest experiences possible.”

More: http://lei.sr/R3B3w_T

It’s with tremendous pride I see Paul step into the role of president
Geoff Chutter

The expansion represents an investment in Liseberg’s next centennial
Andreas Veilstrup Andersen
ILMxLAB – a subsidiary of Lucasfilm – has launched a new virtual reality (VR)-based experience for visitor attractions. Based on the hugely popular Star Wars IP, Lightsaber Dojo will allow players to train with a lightsaber and the Force against waves of training droids and creatures from the movie franchise.

Wearing an Oculus Quest VR headset, fans will begin the experience by stepping into a pop-up training arena, created in collaboration with location-based VR company Nomadic. The app requires a 5G-enabled device and will allow users to stream high resolution ‘holographic’ videos of Sir David, which will present detailed graphics of plants and animals.

Vicki Dobbs Beck: “Lightsaber Dojo will bring that sense of wish fulfillment to fans.”

Lightsaber Dojo is an extension of the award-winning Vader Immortal: A Star Wars VR Series. ILMxLAB executive in charge Vicki Dobbs Beck said: “In Vader Immortal, audiences were able to feel what it was like to battle with a lightsaber in virtual reality. We’re thrilled to bring that sense of wish fulfillment to fans with Lightsaber Dojo.”

The first six Lightsaber Dojo pop-ups have been delivered to Cinemark Theatres and Simon Centers in the US and Canada. ILMxLAB is Lucasfilm’s immersive entertainment studio.

More: http://lei.sr/C4a8v_T

WORLDWIDE

ILMxLAB launches Lightsaber Dojo, new Star Wars VR

Broadcasters and natural historian, Sir David Attenborough, will front a new virtual app which will allow users to explore exotic plants and animals in their own surroundings.

Using augmented reality (AR), The Green Planet app is part of the UK government’s £28m “5G Create” project, set up to test and market the uses of 5G. The Green Planet app alone has received £2.3m worth of funding.

Developed by a consortium of creative and tech firms – London-based immersive content studio Factory 42 – the app will be available in “set locations” around the UK, including visitor attractions, such as Kew Gardens.

The app will demonstrate the power of 5G to a new audience Matt Warman

Matt Warman

More: http://lei.sr/g4A2d_T

Technologynews

UK

David Attenborough fronts natural world AR app

Sir David Attenborough will appear as a hologram

The app requires a 5G-enabled device and will allow users to stream high resolution ‘holographic’ videos of Sir David, which will present detailed graphics of plants and animals.

The app is one of nine projects to receive funding as part of 5G Create. The others include an initiative at the Eden Project in Cornwall, which will explore how 5G and 360 degree video can enhance the visitor experience.

UK

The app will demonstrate the power of 5G to a new audience Matt Warman

More: http://lei.sr/C4a8v_T

The Green Planet app alone has received £2.3m worth of funding.

The Green Planet app alone has received £2.3m worth of funding.

The Green Planet app alone has received £2.3m worth of funding.

The Green Planet app alone has received £2.3m worth of funding.

The Green Planet app alone has received £2.3m worth of funding.

The Green Planet app alone has received £2.3m worth of funding.
Disney reveals first visuals of new Star Wars resort

Disney has released the first visuals of its Star Wars-themed Galactic Starcruiser resort, which is set to open at Walt Disney World Resort in Florida this year.

The ambitious new attraction will offer accommodation in hotel ‘pods’, which are part of a new type of “ultra-deep immersion” experience into the Star Wars universe.

Each guest will be able to become the hero of their own adventure during a two-day, two-night stay. Guests will arrive and depart together at the Galactic Starcruiser Terminal, resembling a small, private cruise terminal.

They will then be directed into a “launchpad” and blasted into space, where they will arrive at the “Halcyon” for the two-day, immersive stay.

“This is a Star Wars vacation experience unlike anything Disney has ever created before,” said Jeremy Schoolfield, MD of Walt Disney World Resort PR.

“It will offer a two-night itinerary where guests arrive and depart together, similar to Disney Cruise Line. Unlike a typical cruise, you can become the heroes of your own Star Wars story in a new type of immersive experience.”

More: http://lei.sr/
Family Boomerang 'Volldampf' and sensational Suspended Thrill Coaster 'Hals-über-Kopf' are two highly themed coasters that feature a unique intertwined layout, crossing each other several times. The spectacular 30 meter high STC features numerous inversions, airtime moments, sharp turns and twists at a top speed of 80km/h – and is a world’s first!

Our dedicated workforce is your partner in co-creating the full ride experience. From designing the tracks and trains that fit your specific wishes to creating themes and complete storylines that are an irresistible magnet for new visitors.

WWW.VEKOMA.COM
**SOUTH KOREA**

**Designs revealed for Korean Museum of Urbanism**

Architects AZPML and UKST have secured the commission to design the Korean Museum of Urbanism and Architecture (KMUA), a £31.4m project in Sejong, South Korea.

The competition was organised by the National Agency for Administrative City Construction (NAACC), which is looking to establish a museum exploring the city’s history and the development of the built environment across the country.

With a total floor area of 17,050sq m, the museum will be part of a larger, 190,000sq m National Museum Complex planned for Sejong.

When open, KMUA will house a collection of full-scale pieces of architecture and will “remain under construction indefinitely”.

Designed to depict infrastructural scaffolding, the building will sit on a walled “treasure garden”, featuring architectural artefacts.

“The KMUA will become a center of archive, exhibition, education, and research for urbanism and architecture,” NAACC said in a statement.

“KMUA will also serve as a promoter of cultural awareness in urbanism and architecture for the general public, with goals of contributing to the betterment of the nation’s urbanism and architecture by establishing a national identity for Korea’s architecture and cities.”

More: http://lei.sr/k2f7G_T

**US**

**Museum devoted to the history of the US Army opens its doors**

A museum telling the story of the US Army has opened in Fort Belvoir, close to Washington, D.C.

The National Museum of the United States Army (NMUSA) is the first to outline the rich heritage of the oldest branch of the United States military and has been designed to serve as a centre of education and as the Army’s symbolic “front door”.

Rather than focusing on battles or wars, the content will centre on the individual soldier by walking visitors through every generation of the Army through a narrative of honour, sacrifice, and valor.

Designed by architects Skidmore, Owings & Merrill (SOM), the museum spans 84 acres across the Fort Belvoir Military Installation in Virginia.

The LEED Silver-certified museum is designed in a series of pavilions for exhibits and special events.

“Our partners at SOM did a magnificent job helping us envision a museum that would reflect the Army’s storied history and the service of the 30 million men and women who have worn its uniform,” said Roger Schultz, President of the Army Historical Foundation, the organisation that campaigned to construct the museum.

More: http://lei.sr/D6V3X_T
**Heritage news**

**UK**

‘Grandparent of skyscrapers’ to become attraction

Shrewsbury Flaxmill Maltings, one of the most important buildings of the UK’s industrial past, is to be restored and redeveloped as a heritage visitor attraction.

Built in 1797, the building is known as the “grandparent of the modern-day skyscraper”, due to its pioneering cast iron frame, which was the first of its kind in the world and paved the way for the development of skyscrapers.

It operated as a flax mill for almost a century, before being converted into a maltings – producing malt for the brewing industry for another century – before closing for the final time in 1987.

Design consultancy Mather & Co has won a competitive tender to support the restoration of the building.

The visitor experience will interpret the stories of the historic building and Mather has revealed plans to develop an “interactive and engaging scheme” which will give visitors an exciting and uniquely memorable experience.

Sarah Clarke, managing director at Mather & Co said: “We’re excited to get started on this truly transformational project.”

More: http://lei.sr/q5C9r_T

**US**

Underwater sculpture park ReefLine planned for Miami

ReefLine will feature art installations located around 20ft under water, which can only be viewed while snorkeling or diving

Designs have been revealed for an ambitious underwater sculpture park which will stretch across seven miles off the coast of Miami Beach, Florida, US.

Created by Architecture firm OMA and called ReefLine, the park is being developed by BlueLab Preservation Society in partnership with the City of Miami Beach and Coral Morphologic.

It will feature art installations located around 20ft under water, which can only be viewed while snorkeling or diving.

Conceived by cultural placemaker and BlueLab chair Ximena Caminos as a large-scale environmental public art project, ReefLine will provide a critical habitat for endangered reef organisms, promoting biodiversity and enhancing coastal resilience.

OMA will design the ReefLine’s masterplan, as well as a distinct sculpture within it, collaborating with a team of expert marine biologists, researchers, architects and coastal engineers.

The project will be completed in phases, with the first phase featuring permanent installations by Argentine conceptual artist Leandro Erlich and Shohei Shigematsu from OMA.

More: http://lei.sr/y5t5D_T

We’re excited to get started on this transformational project

Sarah Clarke

Sarah Clarke, managing director at Mather & Co said: “We’re excited to get started on this truly transformational project.”

More: http://lei.sr/q5C9r_T
Bristol Zoo to leave historic city site after 185 years

The owner of Bristol Zoo, one of the world’s oldest zoos, has revealed plans to leave its city-centre site and relocate all operations to a sister site 10 miles away.

Citing the financial shock caused by the pandemic, Bristol Zoological Society (BZS) said it will move Bristol Zoo to its Wild Place Project site in South Gloucestershire, in order to safeguard the future of the organisation.

The current Bristol Zoo Gardens site, a 12-acre plot in the Clifton area of the city, will be sold and turned into housing and an ‘urban conservation hub’.

The decision to relocate was announced after the second lockdown forced Bristol Zoo Gardens and Wild Place Project to close – and follows years of declining visitor numbers at Bristol Zoo.

The organisation had already been making operating losses in four of the last six years and COVID-19 had placed further pressure on it, as it was forced to close its doors during the peak UK spring and summer months.

Dr Justin Morris, Chief Executive of Bristol Zoological Society, said: “2020 was the most challenging year the Society has faced in its 185-year history. These challenges have had an enormous impact on our finances and it has caused us to radically rethink our plans.”

More: http://lei.sr/k2R7g_T

BIAZA membership for indoor rainforest zoo Plantasia

Plantasia, a rainforest zoo in Swansea, UK, has been awarded provisional membership of the British and Irish Association of Zoos and Aquariums (BIAZA).

The visitor attraction, which is owned by Swansea Council and managed by leisure operator Parkwood, has more than 40 different species of animal, with more than 10 per cent of those having some conservation concern.

Parkwood took over the management of the attraction in 2019, as part of plans to diversify its facility portfolio.

Plantasia first opened in 1990 but was closed in 2015 due to council cutbacks. The council agreed to invest £1.1m in the zoo and appointed Parkwood to operate it in 2019.

The membership means that Plantasia can now expand its collaborations and its conservation efforts and environmental educational programmes.

“Attaining BIAZA membership has been a goal for over half a decade, and when Parkwood became the operator of Plantasia, there was an objective to make it the best visitor attraction and zoo it could be,” said Michael Colwill, Plantasia’s zoo and education manager.

More: http://lei.sr/9n3U_T
Amusement Rides
Made in Italy since 1952

Sernaglia (TV) - ITALY
Tel +39.0438.966291
bertazzon@bertazzon.com
www.bertazzon.com

FUN HOUSES   SWING RIDES   BUMPER-CARS   DARK RIDES   FLAT RIDES

BERTAZZON
The Carousel Company
Following the announcement of the second Harry Potter Studio Tour in Japan, Magali Robathan speaks to Warner Bros’ Sarah Roots about how it will differ from the London tour, and the company’s other Harry Potter plans.

During what was a tough year for muggles, a bit of good news for Harry Potter fans came in August 2020 as Warner Bros, Studio Tours and Warner Bros Japan signed a deal to bring the Warner Bros Studio Tour Tokyo – the Making of Harry Potter to the Japanese capital.

The nearly 300,000sq ft attraction, which will be based on part of the grounds of the former Toshimaen Amusement Park in Nerima-Ku, Tokyo, will feature authentic recreations of films sets from the Harry Potter films, including the Great Hall inside Hogwarts, the Forbidden Forest and Diagon Alley.

The Studio Tour Tokyo – due to open in 2023 – will showcase original costumes and props, and invite visitors to experience scenes from the films firsthand. It will also feature landscaped open space just outside the Tour’s entrance with bespoke sculptures of characters from the films, which will be accessible to local residents and visitors.

The Tokyo Studio Tour follows on from the huge success of the Warner Bros Studio Tour London – the Making of Harry Potter, which has had more than 14 million visitors since its opening in 2012 and the first Harry Potter attraction in Japan, in Osaka. With that level of success, it was perhaps inevitable that the company would open a Harry Potter tour in the Japanese capital, and after extensive research, the Toshimaen site just outside Tokyo was chosen. “The intense Harry Potter fandom of Japan and the location of Tokyo with such a high population of people who love to engage with IP and have days out made
We’ll take the essence of the Studio Tour London and build on it using the lessons we’ve learned to create something even more amazing in Japan.

Roots joined Warner Bros in 2010 and led the London Studio Tour from design through to opening.
“We have the benefit of a brand new building in Japan and it’s bigger”

Sarah Roots, executive vice president, Warner Bros Studio Tours & Retail, speaking via video link.

“We’ll take the essence of the Studio Tour London and build on it using lessons we’ve learned to create something even more amazing in Japan,” she says.

Roots joined Warner Bros in 2010 in the early stages of planning the Warner Bros Studio Tour London and led the project from design and build through to opening, operation and growth. “It’s been a life-changing, all-consuming and very special decade,” she tells me, with highlights including the Royal Inauguration by the Duke and Duchess of Cambridge and Prince Harry, a visit from JK Rowling, “amazing relationships and feedback” from Harry Potter fans around the world and a major expansion of the studio in 2019, with the launch of the Gringotts Wizarding Bank film set and a new 17,000sq ft lobby and cafe.

A NEW EXPERIENCE

While the Tokyo Studio Tour will keep the essence of the London Tour, there will be several differences, Roots tells me.

The London Tour is based at Leavesden Studios in Hertfordshire, where all eight of the Harry Potter films were made, and features original sets, props and costumes from the movies. In Japan, the sets will be authentic replicas of the originals and this will allow a bit more freedom when designing the attraction.

“All of the favourites will be there – The Great Hall, Dumbledore’s Office, the Forbidden Forest – but we have the option of making changes to them,” says Roots. “We have the benefit of a brand new building in Japan and it’s bigger, so we’ll be able to make an enhanced Forbidden Forest, for example.”

The fact that the sets are being made from scratch also means they can be designed in a slightly different way, she adds.

“We’ll be replicating the sets with the original filmmakers – we’ll use the same authentic
processes for Japan, but the materials might be slightly different. The fact that the sets at the London Studio Tour are original is fantastic, but they’re very delicate because they were made for filming not for a visitor attraction. There’s an opportunity to make them more durable, which would allow visitors to have better access to them.”

There will be other small changes to the Tokyo tour. “The Japanese love photo ops, interactives and getting involved, and we’ll be adding a lot of interactivity and engagement into that tour,” says Roots. The Japanese tour will also benefit from the lessons learned at Leavesden, with some tweaks made in terms of the order and spacing of the attractions and the F&B offer.

“When I joined Warner Bros., the plan for the F&B at the London Studio Tour was for a small cart on wheels in the back lot. I knew that wouldn’t be enough so we put in a kiosk,
then a permanent building was added, then expanded, then covered. What we know now is that half way round the experience, people are hungry and tired and want to sit down and have something to eat and drink.”

GRAND PLAN
The attraction is part of plans by the Tokyo Metropolitan Government to develop a new public park on land that includes the Toshimaen Amusement Park, which closed in August 2020.

“We’re really excited about this site – it’s a fantastic location and it’s lovely,” says Roots. “It’s a site that is already established as a destination for residents, as it was previously home to an amusement park. It’s slightly different from the Leavesden site – it will still have a studio look and feel but it’s very green, with communal parkland around it. It will have a nice softness and calmness to it.”

At the start of 2020, things were looking incredibly positive for Roots and her team.

“We were doing so well as a business,” she says. “We had a brilliant year in 2019; we opened our new expansion, we broke our own records, with well over two million visitors and then, bang. Everything changed.”


The weeks and months that followed saw the team managing staff and working with furlough schemes, refunding several months’ worth of

“We broke our own records with well over 2 million visitors and then, bang. Everything changed.”
advance tickets and preparing to reopen safely. The shutdown also gave the company a chance to get ahead with future projects including the Tokyo development, says Roots. “The shutdown didn’t slow down that project – if anything, it just heightened the focus on it.”

When UK attractions were allowed to reopen following Lockdown 1, they had to adapt quickly to selling timed tickets in advance, something that the Studio Tour London had been doing since day one.

“When we launched we were probably the only attraction in the UK that sold all our slots via timed ticketing; it was one of the special things about the way we operated,” says Roots. “We’ve got this great working model of visitors coming and going all day, all pre-booked. It’s one of the benefits that makes our customer service so consistent.”

While the restrictions and lockdowns have been a blow, there have been unexpected positives says Roots. When the London Studio Tour reopened in August, it operated at around a third of its usual capacity, providing a unique experience for visitors.

“It was a VIP experience – you were getting amazing access to the sets and opportunities for photographs,” she says. “It feels like an exclusive tour. We always pride ourselves on our customer service and staff, but there’s something about this kind of approach that I think we and other attractions could take forward.”

What might that look like, I ask. “We pride ourselves on our highly rated experience and
value for money,” she says. “There are increased opportunities to embed more special features and behind the scenes access into the day-to-day visit, through additional, bespoke uplift options and tours. I’m looking to find ways to grasp some of the special, relaxed atmosphere from that period into the tour of the future.”

**HARRY POTTER STORE NYC**

Looking ahead, 2021 will see the opening of the world’s first official Harry Potter flagship store in New York City.

Located next to the Flatiron building at 935 Broadway, the 20,000sq ft store will house the largest collection of Harry Potter and Fantastic Beasts products in the world.

“We’ve taken everything we do well in the visitor attractions world and applied it to retail,” says Roots. “The store will be highly experiential with lots of engagement and interactivity, differentiated product and high levels of customer care. It should be a destination experience in its own right.”

Warner Bros is working with London-based design agency Household on the design of the store. “The level of theming of the store and the design is going to be a real eye opener for people,” says Roots.

When I ask Roots to sum up the decade since she joined Warner Bros, she shares several highlights, but it’s clear that her focus is firmly on the future.

“It’s been all-consuming, and it still is; there’s always something new and exciting happening,” she says. “That’s kept me motivated, focused and buzzing.”

"All parts of the Harry Potter portfolio are designed to be engaging and experiential"
The essential event for owners, managers and marketers of a visitor attraction, for opinion formers and tourism or heritage professionals.

VAC is a national conference organised by the industry, for the industry where you can:

• Get involved in a unique forum for industry professionals.
• Network and share experiences.

Don’t miss this opportunity to:

• Understand your business in the context of the wider visitor attractions market.
• Keep up to date and find new directions for your business.

Sign up for further updates at:
www.vacevents.com

THE ANNUAL NATIONAL CONFERENCE
OF VISITOR ATTRACTIONS
Thursday, 7 October 2021

Join our mailing list via the website to find out more about:

The essential event for owners, managers and marketers of a visitor attraction, for opinion formers and tourism or heritage professionals.

VAC is a national conference organised by the industry, for the industry where you can:

• Get involved in a unique forum for industry professionals.
• Network and share experiences.

Don’t miss this opportunity to:

• Understand your business in the context of the wider visitor attractions market.
• Keep up to date and find new directions for your business.

Sign up for further updates at:
www.vacevents.com

7 October 2021
Save the Date!
www.vacevents.com

Supported by:

Official Publication:

Attractions Management

VisitEngland
The graffiti on the statue of slave trader Edward Colston has become part of its story.
Growing up in Bristol in the UK, I had long been aware of the contentious nature of the statue of slave trader Edward Colston in the town centre and the desire by so many for its removal. However, when a Black Lives Matter demonstration in the summer of 2020 led to it being pulled down and thrown into the Docks, people all around the world started to take notice.

The statue is due to go on temporary display in Bristol’s M Shed museum, and a new commission has been set up by the Mayor of Bristol Marvin Rees to consult with the public about what should happen to it in the long term. Meanwhile, across the globe, museum professionals have been grappling for years with the issue of if and how to display objects and statues that relate to the transatlantic slave trade and colonialism.

Some say museums have a unique opportunity to openly and honestly discuss the brutal history these objects represent and the painful feelings they evoke, while others argue that exhibiting them could be hurtful for some visitors. Here we speak to some of the people engaged in these discussions.
What is the We Are Bristol History Commission?
The commission was set up by Mayor of Bristol Marvin Rees in the summer of 2020 – the toppling of the Colston statue was the starting point, but not the sole destination. Rather the Commission is a chance to ask a broad set of questions about the history of the city and to explore these together as a community over the coming couple of years. It makes sense to begin with the question, ‘What have we remembered?’ (and its corollary – ‘what have we forgotten?’)

But the Commission then wants to focus discussion around a series of other questions – Where have we come from? What have we made? How have we lived (and died)? What have we believed? What have we fought for (and fought over)?

“
It shouldn’t be a small elite that decides what happens to the statue

Professor Tim Cole
Chair, We are Bristol History Commission, Bristol, UK

The statue of slave trader Edward Colston was toppled and thrown into Bristol Harbour by BLM protesters

We are Bristol History Commission chair Professor Tim Cole (left) with the Mayor of Bristol Marvin Rees
What is the aim of the commission?
The aim is to have a period of reflection, exploration and deeper conversations about the history of the city and what’s made us who we are, so that we can think about that in terms of what we memorialise and what kind of city we want to be.

We’ve chosen to focus on a number of questions and use them as a stimulus for conversation – these begin with a question prompted by the specific events of the toppling of the Colston statue that broadens out to ask about what and who we have remembered in the city and who we’ve forgotten. We’ll use a range of media and will partner with different groups and schools to engage people and ask these questions.

What’s happening with the statue of Edward Colston?
The statue was fished out of the harbour and has been conserved by the M Shed museum in the state it was found [the damage to the statue and the graffiti sprayed onto it is being preserved as part of the story of the object]. It is now in the museum’s conservation sheds.

We’re currently working with the M Shed to put on a temporary display of the statue and the Black Lives Matter placards that were left around it – hopefully during the summer of 2021 – and to use that as a way to interact with people who visit the museum and engage the city in a conversation about the statue and its future.

The idea is that this is dialogue not monologue – it’s a great opportunity to display the statue so people can come and see it and be engaged in a conversation about what should happen to it in the longer term.

Why is it important to engage the community in the decisions around what to do with the statue?
That statue was put up by a small elite of people in the city; it shouldn’t be a small elite that decides what should happen to it now. It should be a democratic decision. The events of June 2020 represent an important historical moment for Bristol. The M Shed is a museum that tells the story of Bristol and its history, and this is an important part of that history. The museum wants to work with the commission and with the people of the city to decide how best to tell the story.

What will the display of the Colston statue look like?
We don’t know yet; that’s something we’re discussing. We see it very much as an initial temporary display, with the aim of getting feedback about what the permanent home should be for what is a challenging object. The display will pose questions and I’ll be very interested to hear the answers.

People may say the last place they want the statue is our museums or they might not. At this stage, nothing is decided.

The spirit of the history commission is to guide that process by posing questions and listening. It’s important that as many voices as possible are heard.
Museums aren't the garbage dumps of society

Jean-Francois Manicom
Curator of Transatlantic Slavery & Legacies,
International Slavery Museum, Liverpool, UK

Has the Black Lives Matter movement impacted the conversations and decisions you’ve been having at the International Slavery Museum?
The movement and protests haven’t really changed the conversations we’re having, because we’re deeply engaged in the legacy of slavery, and activism is in our very DNA – the museum was born from activism.

What the movement has done is to shine a light on the problem that our museum is speaking about. I do think the movement is changing things in British society, in highlighting the fact that slavery has a deep impact today.

What are your thoughts on the removal of the statue of Edward Colston in Bristol?
I wasn’t really surprised to see the statue of Colston torn down in Bristol. People have been trying to discuss this issue with the city council for years, but there’s a frustration that discussion and sitting around a table isn’t enough to change things. Sometimes engagement has to be more radical. If people were still just discussing the Colston statue with the council, do you think people would be talking about this internationally? Colston and what he represented is now being discussed all around the world.

Yes, removing the statue and dragging it through the streets was brutal, but the statue itself represents something very brutal. The legacies of slavery are brutal. Some people argue that by removing the statue you are erasing history, but I don’t agree with this. The statue wasn’t speaking about the history of the transatlantic slave trade or the brutal acts carried out by the UK, it was glorifying a person who benefited from slavery.

What do you think should happen to the statue?
My suggestion would be to take time over this decision; to have an honest and deep discussion about this with the authorities, museum professionals, academics, artists, local people. We shouldn’t automatically assume that a museum is the best place for it. Museums aren’t the garbage dumps of society, where you put the things you don’t want elsewhere.

What are the issues around exhibiting statues and artefacts relating to colonialism and the slave trade?
There’s a distinction between items that relate directly to the history of the transatlantic slave trade – which are very difficult to find – and statues and portraits of enslaved owners. The issue of whether to include statues and paintings of enslaved owners is a tricky one and something we discuss in our museum – including them in a slavery museum could be seen as another way of honouring the enslaved owners, and it could be hurtful for people to see them exhibited. Whether it’s correct or incorrect is a big discussion.

What lessons have you learned during your time at the International Slavery Museum?
The biggest lesson I’ve learned during my career – and my life – is that you should never sweep anything under the carpet. If you do, it will come back years, decades or even centuries later. Avoiding talking about things openly that happened in the past is a kind of sweet brutality. If you’re hosting an exhibition about someone who was involved in the slave trade and you don’t talk about the dark side of that person and what they did, that’s a kind of brutality in itself.

The Black Achievers Wall at the International Slavery Museum

A statue of the writer and abolitionist Olaudah Equiano at the museum
We must remain in a place of discomfort about matters of race relations in order for any constructive change to occur.

Christopher Miller
Senior Director of Education & Community Engagement, National Underground Railroad Freedom Center, Cincinnati, US

How should the museum sector respond to the Black Lives Matter protests and movement?
Change comes from a place of discomfort, hence we must remain in a place of discomfort about matters of race relations in order for any constructive change to occur. The protests are the product of outrage and frustration over a long-lasting system that continues to disenfranchise Black lives and disrupts genuine democracy and justice. National Underground Railroad Freedom Center plans to continue to be the convener of uncomfortable dialogue to foster and promote a spirit of justice and inclusive freedom.

Where do you stand on the wider discussion about the removal of statues and memorials relating to colonialism and the slave trade?
Even with the statues and memorials existing in public spaces, there’s never been any real educational communication about the violence and cruelty associated with these statues and memorials. Hence, their removal won’t eradicate the brutal past from our collective memory. Most of the statues and memorials were erected under a false narrative during a time when the US was at its lowest point in regards to race relations.

What do you see as the biggest challenges for museums in becoming the repositories for statues and artefacts relating to colonialism and the slave trade?
The biggest challenge is space – many museums do not have the capacity to exhibit these statues.

And what are the biggest opportunities?
The opportunities to correct and complete the false narratives through truthful interpretation.

What lessons have you learned that might be helpful for museums addressing these issues?
Foster a spirit of authentic truth and inspire the public we serve to be curious enough to seek the authentic truth. I want people to think critically about the past and how it has built our present.

Why is it so important to have museums dedicated to telling the story of the slave trade and its role in our history?
A good museum’s agenda is one that seeks truth and greater understanding about the social condition. The institution of enslavement is the most essential system in the development of the US. It framed our politics with the three fifths compromise, our economics with the production of cash crops such as cotton, and our social behaviour in regards to the social construct of race with the criminalisation of blackness with codes and laws. Race and slavery has been a continual factor in the development of the nation.
Museums are not analgesic spaces where controversial histories can be rendered safe and printed on souvenirs

Tayiana Chao and Olivia Windham-Stewart
Founders, Museum of British Colonialism

What are the aims of the Museum of British Colonialism?
The Museum of British Colonialism was founded in January 2018 by a group of women in Kenya and the UK who recognised the need for a space to restore and make visible the suppressed, destroyed, or under-represented histories relating to British colonialism. We're entirely run by volunteers in both Kenya and the UK from a very mixed range of professions and backgrounds. We're a virtual museum but the work we do also has a physical presence, for example, the first project and exhibition we embarked upon aimed to uncover and digitally reconstruct detention camps from the Mau Mau Emergency in Kenya.

Why is it so important to tell the story of British colonialism and what role should museums play in telling that story?
A triumphant and benevolent version of the story of British colonialism has been told for a very long time. This is far from the whole story and the lack of honest and self-reflecting analysis of this story has had real world consequences. It has also led to an inflated sense of moral high ground in Britain and other former coloniser countries making it very hard to challenge effectively.

Museums are guilty of portraying this skewed narrative of British colonialism, whilst at the same time having the power to correct it. We hope that other museums will follow our model and portray a fuller picture of the history which, no matter how controversial, needs to be told. This will include a difficult conversation that museums need to have about how some of the objects they display were acquired, and whether or not they should continue to be housed there.

How will ‘visitors’ access the stories that will come from the museum?
We’re primarily an online, digital museum however we do hold exhibitions, film screenings, and other events both in Kenya, the UK and beyond. With the global pandemic all our activities have moved online but we hope to return to the ‘real world’ at some point in the future.

Being a digital museum allows us to have many more ‘visitors’ than if we were tied to a physical space and we

Screening of Operation Legacy, a documentary co-produced by MBC about the Mau Mau Emergency
attract an audience from all over the world. While we believe it’s necessary to complement and realise our online work with physical events and interventions, we also believe in trying to take that work to people, rather than set a requirement that people come to us by establishing a central physical space. That’s a different way of thinking about doing museum work and it’s critical to our process.

What are your thoughts on museums becoming the repositories for statues, portraits and artefacts relating to colonialism and the slave trade?

Museums have long been considered repositories for statues and, more recently, that applies to those that have been toppled. But museums are not repositories for a nation’s unwanted junk, nor are they analgesic spaces where controversial histories can be rendered safe and printed on souvenirs. Museums should be spaces for learning, discovery, and the bringing together not only of objects, but also of people and stories.

The very idea of museums, from Renaissance cabinets of curiosity to the genocide-minded skull-collectors of the 19th century, is rooted in colonialism. Today, too many museums are dusty relics of the Empire itself, from their vapid architecture to their blood-stained collections. Those that lament the pulling down of statues as ‘destroying history’ have a similarly outdated understanding of heritage.

To build a Museum of British Colonialism we need to discard all of this heritage and imagine a museum without walls, curators, collections or gift shops.

What have you learned through the experience of establishing the Museum of British Colonialism that others could learn from?

It’s been an eye-opening experience. To engage with Britain’s colonial history, museums should be seen as spaces to explore what we don’t know, rather than present what we do know or what we want others to think. They are spaces for social, emotional and psychological exploration and connection and they can have an explicitly social justice mission.

The work is often in the process, rather than simply the display of objects; it’s in the coming together of communities; in the listening and the creation of work – they can be spaces of social and transitional justice, not just buildings that uphold and maintain certain immovable positions, narratives or objects.

Do you have any thoughts on what should happen to the toppled statue of Edward Colston in Bristol?

The conversations being had around the toppling of the statue have already provided more discussion of the history than the statue itself ever did. Our advice would be to focus on this discourse.

The important thing is not what happens to the statue, it’s what that means in relation to how people understand the history of their cities and communities and, ultimately, the country.
For those who have roots in regions of the world that suffered the violence of Empire, the Pitt Rivers Museum can be a very hurtful place to be.

Dr Laura Van Broekhoven  
Director, Pitt Rivers Museum, Oxford, UK

What impact has the Black Lives Matter movement had on the Pitt Rivers Museum?

For those who have heritage or roots in regions of the world that suffered the violence of Empire, the Pitt Rivers Museum can be a very difficult and hurtful place to be. Too often stories have been silenced and perspectives erased.

Because of its contentious history, its displays and the collections it stewards, over the past years the museum has been a site of protest for Rhodes Must Fall and Black Lives Matter activism. The museum understands how it has a responsibility to be held accountable concerning ongoing colonial complicities in its displays and collections and knows it has much work to do still.

You have been engaged in a decolonisation agenda at the museum for several years.

What have you learned?

That decoloniality is an iterative process that requires much flexibility and willingness to learn and rethink. It’s very important to remember that decoloniality did not start here or in our generation, it started with the long-standing resistance and resilience of Indigenous Peoples, who have been fighting coloniality for over 500 years and the struggles of the civil rights movements in many different parts of the world. Coloniality stretches out over many different aspects of life, and decoloniality therefore requires us to really deeply review some of the foundations of our thinking.

As part of an internal review you’ve pledged to remove human remains including shrunken heads from Ecuador and South America. Why did you make that decision?

The process ran over three years, since 2017, and included several aspects of the museum’s work. It was clear from the review that the introductory case and several specific case displays needed urgent consideration as did, more broadly, the displaying of human remains. Part of the review led to the removal of 120 of the human remains from display. Input from communities was vital – for instance with regards to the tsantsas, the museum worked with Maria Patricia Ordoñez of the Universidad de San Francisco in Quito to work with contemporary Shuar delegates and set up a project that included their voices.

The review has far reaching implications for the museum and has been the driver for projects: on re-labeling and for new collaborative approaches and changing the way we refer to cultural groups in our collection databases.

It has inspired an ethos of co-curation with community members and a programme of work that researches the composition of the collections and identifies which collections are contentious and were collected as part of processes of colonial violence.
DJW offer a way to interpret your story through the use of technology. We can provide Audio Visual consultancy, system design, supply, installation and provide a bespoke control system to suit your needs.

djwillrich.com
The Mauritshuis in The Hague turned the restrictions of the pandemic into a once in a lifetime experience for visitors, with a special exhibition that offered a chance for a personal encounter with Vermeer’s masterpiece, *View of Delft*.

Spending time alone with a great masterpiece – with the opportunity to more deeply contemplate and appreciate it – is an experience more usually reserved for the super-rich and celebrities who have ‘fixers’ to make their dreams come true.

Inspired by this concept and with a view to putting a positive spin on pandemic restrictions, art museum The Mauritshuis in The Hague, created an egalitarian version of the private viewing, making one of its star paintings – Vermeer’s *View of Delft* – available for one-to-one bookings as part of a special event called Alone with Vermeer.

Dubbed ‘the most beautiful painting in the world’ by author Marcel Proust, the painting was put on display for visitors in bookable 10-minute slots for sole viewings or viewings in small groups. The price of the ticket also included a full visit to the rest of the collection.

The Mauritshuis, based in a 17th-century mansion, is home to some of the most important paintings of the Dutch Golden Age, such as Vermeer’s *Girl with a Pearl Earring* and Rembrandt’s *Self-Portrait*, which are on permanent display.

Alone with Vermeer has been hailed as a bold and imaginative answer to the challenges of the pandemic. ●
After eight years of planning, the Sea Life Trust, the adopted marine charity of Merlin Entertainments, opened the world’s first cetacean sanctuary in Iceland recently. Sea Life’s James Burleigh talks to Kath Hudson about the long, and sometimes painful, journey to a joyous ending.

One of Merlin Entertainments’ founding principles is that the company will not keep any cetaceans in its attractions for entertainment purposes, so when two young beluga whales, Little Grey and Little White, came into the company’s hands in 2012, Merlin CEO, Nick Varney, charged Sea Life’s chief ambassador, James Burleigh, with the task of creating a home for them which was as close to the wild as possible.

What followed was a mission of epic proportions. It was incredibly costly – the price will not be revealed or recouped – but Burleigh says that everyone at Merlin Entertainments, from the top down, was fully behind the campaign, because it was the morally right thing to do.

Many from outside the company became equally invested in the project’s success. Comedian, John Bishop, became part of the team through his role presenting an ITV documentary about the project, called John Bishop’s Great Whale Rescue, and as a result fell in love with these mesmerising animals.

The story started nine years ago when Merlin acquired Living and Leisure Australia, owner of Shanghai Changfeng Ocean World, which ran a beluga whale show. Little Grey and Little White were only six years old at the time and as they can live to be 40- or 50-years-old, much of their life was still ahead of them.

Re-release into the wild wasn’t an option, as they wouldn’t have the skills to survive, so the challenge was to find a location which would allow them to be as free as possible and replicate their natural habitat.
Bespoke slings were made to ensure the whales’ pectoral fins were in the right place.
“We needed very cold waters, in a bay which could be netted off to create a sea pen and in a place with the right infrastructure,” explains Burleigh. “We also needed unequivocal support locally and nationally. Russia would have been ideal from an environmental point of view, as that is where they come from, but was ruled out as the landscape and existing infrastructure was unsuitable.”

**IDEAL LOCATION**

After a comprehensive scout around the planet, Klettsvik Bay on Heimaey Island in southern Iceland was chosen, which was where Keiko the Orca from the *Free Willy* films was kept briefly after being retired. While a very small amount of whaling remains in Iceland, whale watching trips are fuelling a booming tourism industry and now millions of inbound tourists seek out whales as a source of wonder and engagement, which sits particularly well with the fact that the country is now proud to boast the world’s first cetacean sanctuary.

Following an agreement with the municipality of the Westman Islands, the space was secured for a nominal rent. “It benefits the island by making it an iconic destination,” says Burleigh. “We also relocated a local aquarium and sprinkled some Sea Life pixie dust on it to create a small attraction, which will be a fundraiser for the Sea Life Trust.”

Burleigh says this wouldn’t be a site Merlin would usually consider for an attraction. It has a very short season and has to close in the winter, because the enjoyable 30-minute ferry ride can’t operate – the route is replaced by a choppy three hour journey from a different port in the winter months.

The island has 4,000 residents and just 100,000 tourists a year. “We would never
This is a world’s first, so we had to find our way on so many levels.
normally build an attraction in such a place, but there is also a volcano and volcano museum, the largest puffin colony in Europe, a good golf course and walks, so with the addition of the sanctuary, it’s likely to get more tourism,” he says. “Added to this, the local people are amazing. They are very resourceful and they have so much expertise – whether it’s divers or people to manufacture the nets we found everything we needed locally.”

**CHALLENGES GALORE**

Two years ago I interviewed Burleigh about the development (Attractions Management Q1 2019) and, with the sanctuary secured, the project seemed to be on the home straight. The move-in date was planned for June 2019, with release into the bay for the whales scheduled for August the same year. In reality it was nowhere near as simple. The first move-in date was called off because the weather conditions in Klettsvik Bay meant the ferry wasn’t able to run, so because of a hitch with the final nine miles, the whole mission had to be postponed.

“That’s when I had the sweatiest palms and had to have the most difficult conversation of the whole project,” Burleigh says. “Cargolux had very kindly donated the flight – which cost hundreds of thousands of pounds – and it had already taken off when I had to break the news they had to go back. “Having asked them to donate one flight, I then had to ask if they would donate a second one. The CEO is a brilliant guy and he did agree, but he made it very clear that if it happened again I would be summoned to Luxembourg!” The second attempt was nudged forward by two months. Each move date involved a massive amount of organisation, including specialists being assembled from all over the world. Bespoke transportation slings were crafted to fit the whales, so their pectoral fins would be in the right place. They were loaded into an articulated lorry to cross Shanghai and once they got to the airport, there was a nail-biting wait for a customs officer to arrive to sign the cargo off, causing the plane to miss its original take-off slot. Burleigh says once again they had a narrow window with the weather, meaning they left on the last possible day.
Cargolux had to negotiate with Russia for a low flight path to avoid changes in air pressure. The whales had iced water pumped onto them throughout the journey to keep them cool, and were constantly monitored for signs of distress. All in all, the journey from Shanghai to the new custom-built care pool on Heimaey Island took almost 40 hours, including two lorry rides, one flight and a ferry. The team was euphoric at getting the whales to their new home, but because the move date had been delayed, there wasn’t enough time to get them accustomed to the ocean before the harsh winter of 2019/20 set in, so the release date into the bay was delayed until April 2020. “We asked ourselves, ‘what could possibly go wrong?’” Says Burleigh.

COVID CHAOS
“Then in April there was the small matter of a global pandemic, with Iceland going into lockdown along with most of Europe,” he says. “The pandemic caused problems in so many ways, even when lockdown was lifted.
There were hardly any flights and they were all expensive. With the quarantining it meant each trip took at least 10 days. It caused disruption in the wider business world, creating difficulties with fundraising, and impacted tourism to the new visitor centre on the island.

So the release date into the bay was pushed back again, to June 2020. Once again the team and cameras were assembled for the big day, only to discover at the last moment that the whales had minor bacterial stomach infections and would need to stay in the care pool for a few more weeks.

Finally, amid tears and celebrations, they were released into the sea in August 2020 and for the first time in 12 years Little Grey and Little White felt the sun and rain on their backs and saw puffins and octopus. Before being allowed full run of the bay they had to be trained to come back to the trainers, led by specialist curator, Jessica Whitton, who will monitor their health for the rest of their lives.

**A HAPPY ENDING**

Finally, they were let out into the wider bay in September 2020. At 32,000sq m, their new living quarters are 35 times bigger than the space they’d been used to, with a depth of more than 10m. As the release date had been delayed, they didn’t have time to acclimatise to the sea sufficiently to cope with the winter of 2020/21, so were brought temporarily back into the care pool for a second time.

“Pragmatism has been the key word,” says Burleigh about the arduous process. “Each time we came up against a hurdle we had to work out how to get over or go around it. There was no precedent and we did make mistakes. But now we have a blueprint, so other operators can approach us if they want to do something similar.”

He points out that this project isn’t just about Little Grey and Little White. “There are 300 belugas and 3,000 cetaceans in captivity and we would definitely like to welcome more,” he says. “This sanctuary could house 10 and we also have the facility to move the nets and enlarge the enclosure.”

Burleigh says the whales are thriving. They’ve started catching fish and bringing them back to their trainers – sometimes they eat them rather than hand them over, which shows a return to their natural behaviour.

Meanwhile, the rest of the team are still in recovery mode: “We had months of disturbed sleep due to the stress and the long Icelandic days,” says Burleigh. “All the same, if someone rang tomorrow about rehoming a cetacean, I would definitely talk to them! It’s been a privilege to be able to work on this. I’m very thankful for the opportunity and very proud of what we’ve achieved as a team.”
Do you manage a media-based attraction within your theme park or museum?

ARE YOU SURE THAT A LICENSED MOVIE IS THE SOLUTION FOR YOUR THEMATIZED VENUE?
(or that your OLD custom movie isn’t boring your guests?)

⚠️ A licensed movie does not match with the theme of your venue because it is generic, not personal.

⚠️ Showing your venue's personality with a generic movie (some products that everyone can show elsewhere) is impossible!

⚠️ Plus, an outdated custom made movie does not add any value to your venue. Guests get bored of the same old stuff!

This is where Magicboard comes into play!
Thanks to this tool you will be able to immediately visualize how an up-to-date custom made movie can highlight a venue’s concept.

Want some proof?

Receive the Magicboard Sample directly on your desk for FREE!
Send us an email at magicboard@redraion.com
or visit the link bit.ly/get-magicboard
Californian tech company Edge Innovations has unveiled an astonishingly lifelike robot dolphin. Could this mean an end to captive orcas and dolphins? Kath Hudson asks CEO, Walt Conti
B</p><p>lending live puppeteering, programmed behaviour, and artificial intelligence, Edge Innovations – which has created numerous animatronic marine mammals for Hollywood blockbusters – believes its hyper real sea creatures offer the opportunity to reimagine aquaria. This technology could make captive orcas, sharks and dolphins a thing of the past, instead offering interactive experiences with robotic cetaceans. Edge CEO, Walt Conti, talks us through the challenges in creating these lifelike robots and the potential they offer.

What inspired the idea for the animatronic dolphins?
The technology which enabled the creation of the dolphin sprung from Edge Innovations’ work in the film industry in the 1990s, creating the world’s first free-swimming, full size animatronic marine mammals. Prior to that, films such as Jaws were filmed with partial sections of an animatronic shark, rigged to big platforms and filmed from specific angles, such as one side or the front.

For Free Willy, Edge created completely self-contained orcas which could be filmed from any angle. Edge went on to create many aquatic animatronics for films such as Flipper, Deep Blue Sea, The Perfect Storm and The Aquatic.

In 2000, Roger Holzberg, a VP at Disney Imagineering and currently head of experience design at Edge, came up with a concept for an attraction that would feature this technology. We collaborated on two pilot attractions with Disney using version 1.0 of the dolphin: one for Epcot and one for Castaway Cay, Disney’s cruise ship island in the Bahamas. Disney did not proceed with the attraction at the time, but the pilots were a huge hit with guests and tested off the charts, showing the potential for the concept.

Marine parks have focused on acrobatics. We can replicate this, but there are many other experiences – toddler dreamtime with a dolphin; snorkelling with great white sharks

ALL PHOTOS: EDGE INNOVATIONS
This current initiative was born from the realisation that there has been building resistance over the last decade against keeping these types of marine mammals – dolphins, orcas, belugas – in captivity. In addition, there has been a convergence of key technologies which makes this vision financially and experientially viable on a large and worldwide basis. We are able to take advantage of the billions of dollars now being spent in the development of the electric vehicle battery systems and autonomous sensors and AI. These industries have driven down the cost of these key elements which are integral to our creations.

What specific features and characteristics did you want to achieve?
Our goal was pretty simple. We wanted to create real-time animatronics which were so realistic in appearance and movement that even up close people would interact with these creations as if they were alive. Once you have achieved that level of suspension of disbelief in guests then it opens up the opportunity for all sorts of engaging, entertaining and educational experiences.

How did you go about making this vision a reality?
The success of these animatronics relies on an obsessive attention to detail. We base the animals on actual skeleton information and build out from there. Having that foundation ensures animals will move in the right way.

What were the main challenges?
It’s extremely challenging to package all the technology – motors, electronics, batteries and skin systems in a way that fits inside an accurate form of a dolphin. One can’t just use off the shelf industrial components since they are typically not optimised for size. Therefore every sub-system has to be custom designed. Getting the skin to behave in a natural way is also very challenging and requires multiple rounds of prototyping and testing. Finally, achieving the right buoyancy control and stability while swimming is especially difficult. From a physics and engineering point of view one gains an incredible appreciation for mother nature when trying to recreate an animal like the dolphin. All in all the development of the V1.0 dolphin took over two years.
What has been the response from consumers?
Without exception we have observed a complete suspension of disbelief in guests, both children and adults. Even when told these are robots, they end up petting the dolphins or trying to kiss them. There is some kind of magic which transcends all mechanical and silicone elements which ends up creating a powerful engagement with guests.

Have any attractions committed to buying one yet?
We’re in advanced talks with our Chinese clients to populate three new large aquaria in China. COVID-19 slowed some of the progress this year – we were all set to implement a pilot attraction at a large aquarium in California just before the shut down, which will be restarted once attendance has recovered.

Is it viable for attractions to invest in robots rather than having live animals?
Yes. It has become more and more challenging to operate attractions based on keeping large marine mammals in captivity. There is a growing awareness that the negative aspects of keeping these animals in these environments has affected profitability.

What’s next for you?
We’re currently in development on the next generation – V3.0 – which will incorporate more AI, allowing both an ‘exhibit’ natural behaviour mode and a ‘real time’ puppeteered mode for recurring shows.

Will you replicate any other mammals?
The beauty of this technology is that you can replicate any marine mammal. It creates an opportunity to experience the wonders of the ocean world through a much broader range of the incredible animals which inhabit it.

Beyond the ethical aspect, what other advantages do the animatronics have?
Marine parks have operated under the premise that the most engaging experiences with these animals is to have them do acrobatic stunts. We can replicate those experiences, but there are so many other experiences which can be delivered, such as a toddler dream time with a dolphin, snorkelling among great white sharks, or bringing the Jurassic Seas to life.

Suspension of disbelief means even when told it’s a robot, people try to kiss it
Each new project is like taking a Master’s degree

BOB ROGERS

As BRC Imagination Arts celebrates its 40th anniversary, founder Bob Rogers shares the secrets of success with Magali Robathan
When Bob Rogers set up experience design and production company BRC Imagination Arts 40 years ago, he was, in his own words: “Just a young guy with no credits and no reason anyone should trust me.” What he did have was bags of enthusiasm and a unique approach to storytelling.

The young Rogers started his career in attractions with the Walt Disney Company as a magician in the Magic Shop at Disneyland, California, before going to film school, and these experiences firmly shaped his approach to creating experiences. “You can tell a lot about a company from the origins of the founder,” he tells me. “Bringing a filmmaker’s sense of story together with a magician’s sense of magic and wonder has always been kind of a formula for us at BRC.”

It’s a formula that has led to a range of award-winning projects for clients such as the Abraham Lincoln Presidential Library and Museum in Springfield, Illinois, US; Jameson Distillery Bow St in Dublin, Ireland; the Guinness Storehouse in Dublin, Ireland; the Museum of Liverpool in the UK; and the NASA Kennedy Space Center Visitor Complex in Florida, US. Rogers has earned two Oscar nominations – for the short films Ballet Robotique and Rainbow War – has been inducted into the IAAPA Hall of Fame, and in 2007, received the THEA Lifetime Achievement Award for his breakthrough work in the themed entertainment and experience design industry worldwide.

Today, BRC employs between 50 and 75 people (staff numbers are constantly adjusted to meet the needs of each project), with the core team including “creative directors, artists, economists, designers, composers, accountants, film makers, technical wizards, producers, planners, magicians, graphic artists, project managers, storytellers, IT experts, musicians, researchers, special effects masters, systems engineers and a dancer or two.”

“I’m so inspired by the people that I work with,” says Rogers. “We’ve done a great job of finding great people, and great people have chosen to come to us. I’m very proud of the team.”

As the company celebrates its 40th anniversary, Rogers is more interested in looking forwards than looking back. “I can’t wait to see what the team does next,” he says. New projects for 2021 include a “technically astonishing” stadium tour for the Las Vegas
Raiders, the creation of a distillery experience for Horse Soldier Bourbon with architects Rogers Stirk Harbour & Partners in Kentucky, US and the opening of Johnnie Walker Princes Street – Diageo’s flagship whisky experience in the heart of Edinburgh, Scotland.

THE SECRET OF THEIR SUCCESS
So what’s BRC’s secret? According to Rogers, it’s both simple, and rare. “The thing that set us on the path to success was an idea about story that is not shared by everyone in the industry,” he tells me. “For us, it always starts with the heart. It’s not about features and benefits, or filling visitors heads with facts, it’s about connecting the heart of the audience with the heart of the subject or brand in a way that is enduring and that benefits both.”

This is not an abstract concept, explains Rogers; it’s being serious when it comes to understanding what’s needed.

“A lot of designers sit down with the client, ask them what they want, and after an hour or two, they think they have their list and can start work,” he says. “But you have to look deep, deep within your audience and your client or brand before embarking on a journey together; you have to ask fundamental questions to try and find out what they feel, what they want and what their values are. What you’re looking for is something in common with both. You can’t create it, you’ve got to find it, and when you do, that’s your link. That’s how you cause a permanent, positive connection between the two.”

By way of an example, Rogers cites the BRC-designed Ghosts of the Library show at the Abraham Lincoln Presidential Library and Museum – a museum that BRC helped create, together with Illinois State and that has won a Thea Award for Outstanding Achievement from the Themed Entertainment Association.

“A curator storyteller is explaining the role of a presidential archive in preserving and cataloguing presidential papers and other artefacts,” says Rogers. “Suddenly he says, ‘But some people ask, why save all this stuff? Isn’t history just a lot of dumb, useless names and dates you have to memorise to get through school?’ At this, you can feel all the kids in the audience thinking, ‘Yeah, that’s what I think, but I never expected you to admit it. By raising the taboo question, you now have their complete attention. And by
eventually answering that question in a positive and compelling way, you win their teachers over as well. You’ve achieved a personal connection.”

As BRC works internationally, it’s important they tap into local cultures and sensitivities rather than just imposing their own ideas, continues Rogers.

“We work all over the world, so we need to be very sensitive culturally to what each new audience wants,” he says. “It’s important to have local cultural advisors, and you need to do some deep listening, culturally. It also helps to have a diverse design team – even if they don’t represent the exact culture you’re trying to serve, the fact they have various points of view sensitises you to different needs.”

The other thing that brings BRC’s attractions alive, says Rogers, is the sheer amount of research undertaken to create them.

“Because we go so deeply into our subjects, each new project is like taking a Master’s degree,” he says. “When we did our project about the Apollo Programme we weren’t sitting across the table from the people who wrote the books about it, we were sitting across the table from Neil Armstrong, Buzz Aldrin and John Young.
When we created Mystery Lodge at Knott’s Berry Farm we didn’t research it by reading about the Cranmer family of the Namgis First Nation of the Kwakwaka’wakw people of Alert Bay, British Columbia, we worked directly with the senior members of the family, including the tribal dance master, the hereditary chief and the tribal anthropologist. That’s magic.”

WEATHERING THE STORM
I ask Rogers how 2020 was for him, expecting the usual answer about what a challenging year it was. Instead he admits, “We feel a little guilty that things are going so well for us when others are hurting, but it was actually a pretty good year. We did very well.

We’re in our 40th year and for 38 of those years we’ve been working internationally, so we’re used to working remotely. We get calls every week for viable projects.

“It really pains us to see some of our colleagues suffering right now,” he adds. “I do think that there’s a pent up demand that’s going to surge in our industry in 2021. When the pandemic eases, people who have money will come out and start spending like crazy and that will lift everyone – we’re looking forward to that good fortune, not just for us but for everyone else.”

LOOKING AHEAD
This year, a typically varied selection of projects are due to open, from a stadium tour to a flagship whisky experience in Edinburgh.

Following the completion of the Las Vegas Raiders’ new $1.8bn Allegiant Stadium last summer, the NFL team were keen to offer a technologically sophisticated stadium tour to connect visitors with the team and its history.

“Together with the Raiders, BRC has created a tour that lets hosts control sound and media throughout the stadium via a small device on their wrist, with immersive shows starring some of the Raiders’ most important icons in behind-the-scenes spaces guests would normally never see,” says Rogers. “Without giving away any secrets, it’s the only stadium tour that we know of that often ends with fans crying as they step out onto the field. It’s emotional, it’s theatrical, and the Raiders believe that it’s going to be a “must do” on any visit to Vegas.”

Another major project for the company is its work with Diageo in Scotland. The Glenkinchie
Distillery – the Lowland Home of Johnnie Walker, which opened in October 2020, is the first of four distillery experiences around Scotland being designed by BRC for the drinks brand as part of an £185m investment by Diageo in Scotch whisky tourism.

The Glenkinchie Distillery – which has won a Green Tourism Award – has been designed as a full sensory experience, taking visitors on a journey through the history of Glenkinchie and Johnnie Walker whisky with specialist tours, tasting rooms and a contemporary bar. Centred around a landscaped garden, the immersive experience takes place in the distillery’s Victorian red brick warehouses.

Two more BRC-designed distillery experiences are due to open in the next six months, with Diageo’s flagship venue – Johnnie Walker Princes Street in Edinburgh’s West End – set to open this summer, COVID-19 restrictions allowing.

The company have also designed a new exhibition for long term client The Henry Ford Museum of American Innovation just outside Detroit. Titled ‘Fueled by Passion – Driven to Win’, it’s a “very emotional, very sensory ride along experience,” which promises to bring to life the story of American auto racing.

As we go to press, BRC has also just been selected to design and produce the World Food Center Experience in Ede, the Netherlands – an attraction that will explore the impact of the world’s food choices and the importance of sustainable and healthy food production.

Other projects include the creation of an indoor music experience centre for Ravinia Festival, the US’s oldest outdoor music festival.

“It’s an indoor spectacular with a ton of heart that tells the life story of the conductor and composer Leonard Bernstein,” says Rogers.

So, the next year is looking busy, but what about further ahead? What’s the plan for the next 40 years?

“For the last 10 or 15 years we’ve been setting the company up for succession,” says Rogers. “I try to do less and less – I make a suggestion here and there. The BRC team are ready to lead and have been leading for some time. I am so proud of them.

“I think the company’s best work is ahead and I can’t wait to see what they come up with next.”
GETTING CREATIVE

What does Technically Creative do?
We create the ultimate in immersive experiences. Our team is dedicated to providing captivating visitor experience installations, large or small. Think of us as your one-stop all in-house experience provider.

Which sectors do you work in?
We work with theme parks, family entertainment centres, retail and visitor attractions. Anything fun!

What type of projects do you take on?
We create VR attractions, software modelling and interactive games, as well as immersive retail experiences, interactive mini-golf centres and F&B environments. Other areas include lighting, show control and digital audio installations, projection mapping, bespoke exhibition stand tech, electronics, and installations.

Who are your key clients?
We work with a range of different clients to create attractions all around the globe. From private attractions, theme parks and FECs, creative design studios to museum and retail contractors.

What services do you offer?
As a one-stop-shop experience provider, we currently offer the following services: concept design, interactive environments, lighting, interactive software, audio visual, show control, electrical/electronics and project management.

We’re also extremely excited to have launched a range of off-the shelf Technically Creative products, including Magic Sand Pit, which brings imagined landscapes to life; The Town Planner, an interactive VR landscape creator; and Step and Play, a giant interactive keyboard.

What’s your company mission?
To be a one-stop-shop for all attraction technical requirements. We love guiding our clients from their initial idea right the way through to project completion and aftercare.

What makes you special and different?
We’re a one-stop-shop for all interactive attraction needs. That means we can take your initial idea through concept, R&D, design, production and finally through to installation. We also offer aftercare and maintenance packages to ensure your installation continues to bring joy to guests for years to come.

Another key factor that separates Technically Creative from the competition, is that every member of our team has installation experience,
even those who are desk-based. This means that our team constantly has the end goal in sight, and we all pull in the right direction to ensure we deliver an outstanding installation.

**What's your working process?**
Firstly, understanding the client’s requirements and budget is key to creating the attraction they desire. We then work closely with the client on concept development. Our talented designers then produce creative concept visuals. The next stage is production design, before we build and test our work, on-site at our headquarters in York.

The final stage is installation, where we get to see the idea come to life.

**From where do you draw inspiration?**
Many childhood experiences serve as the inspiration for the work I do. From the age of five I was already creating fantasy gardens and learning about electronics. I find that children have a very simple view of the world, and often some of the simpler ideas are more exciting with endless possibilities.

**Which projects have you worked on?**
One of our most exciting recent projects was the Xplore Family Entertainment Centre in Athens, Greece. We worked on this project for over six months, creating interactives for 20 different zones across three sections: The Exploratorium, Adventureland and The Oceans.

For the Exploratorium, we created and installed a laser harp, motion graffiti, and a giant piano. In Adventureland there’s a Laser Maze, or you can design and service a car, or even have a go on our racing simulator. This area of the centre also features a new interactive we’ve created, called Virtual Village. Similar to SimCity this is a totally interactive installation that allows players to build a virtual village in real-time using our live rendering software. We also installed all the lighting, show control, electrical control systems, audio and PA systems throughout Xplore Athens.

**How do you see the industry changing?**
Since the outbreak of COVID-19 a lot of attractions have had to change the way they operate. This will influence the business feasibility of operators and suppliers. I can see a future where visitor dwell time is factored into the design of attractions to help account for social distancing, for now it is positive to see more projects resurfacing, and we look forward to seeing the sector thrive once again in the coming year.

---

Technically Creative was founded in 2019 in York. Every member of the team has installation experience.

**THE CORE TEAM**
- Marc Broadbent
  Founder, owner, and creative director
- Clare Sims
  PA to Marc Broadbent & project manager
- Clive Powell
  Creative development manager
- Craig Meakin
  Lead concept design engineer
- James Voakes
  Head of technology services
- Lee Coleman
  Production manager

Technically Creative was founded in 2019 in York. Every member of the team has installation experience.

Contact Technically Creative
T: 01904 207160
E: info@technically-creative.co.uk
W: www.technically-creative.co.uk

---
Quizzing curators about an exhibit, recreating walkthroughs and creating new income streams. Is ‘extended reality’ the way forward for attractions? Kath Hudson speaks to White Light about the potential of this exciting use of technology.
The SmartStage Studio immersive video environment (top). Pink Floyd at the V&A
We’re now using a range of toolkits to prove that technology can provide something that’s on a par with a live experience.

NEW OPPORTUNITIES

Larcombe says that many museums and galleries were reluctant to put too much content online, because of concerns it would stop people coming to the attraction, but now there’s an understanding that a unique online experience enables a new connection with the audience.

“If you’re interested in Andy Warhol, then nothing will beat a visit to an exhibition of his work,” he says. “But if you can also have a conversation with the curator from your home, that’s a money-can’t-buy-experience which complements the live event. This technology offers so many new opportunities.”

When Larcombe talks about having a conversation with the curator, he doesn’t mean a Zoom call. Augmented reality and extended reality (xR) technologies can allow the curator to appear in your living room for a face to face conversation, or appear live in a virtual environment to interact with an audience, even if they’re in other places.

The technology was first used by Eurosport during the 2018 Olympic Winter Games, when White Light worked with another technology company, Disguise, to create a pioneering mixed-reality television studio, into which they could teleport an athlete, using augmented reality, and wrap content around them. It was incredibly effective as it looked as though the presenter and athlete were having a face to face conversation. Other pundits could also be beamed in from separate locations and they could all have natural conversations, while the presenter could interact with augmented reality graphics and props.

White Light has since taken this technology and created the SmartStage product which offers exciting potential for many industries, including attractions and hospitality. White Light’s technical solutions manager, Andy Hook, explains...
how the company is talking to motor racing teams about an experience to offer their sponsors.

“Sponsors spend a lot of money in order to send people to races and without being able to attend, the sponsorship was in jeopardy. This technology allows us to create an experience where clients could virtually go inside the factory and see a race car being pulled apart, with bits flying around, and ask questions of the engineers.”

Hook adds that this technology offers a great way of personalising the experience: “With augmented reality you can do all sorts of things for sponsors, such as making a logo pop up from the floor.”

WIDER AUDIENCE
Larcombe also believes this technology has great potential for heritage locations and museums to allow them to reach out to a wider demographic and a global audience. “It allows the heritage
There are lots of ways content could be monetised. A charge could be made to ask the person presenting a question or to see an additional camera angle.
Attractions operators will be able to take advantage of this technology to create more interactive and collaborative features,” says Larcombe. “The experience could be personalised. With xR you could point your device at the immersive display and the information would appear curated to your needs. The same display could be used to reveal a more pictorial version of the content for young people as they explore the space, or a more detailed text heavy version for adults.”

Whatever happens with COVID-19, 2020 has changed us all, creating a remote audience which is here to stay and offers new commercial potential. Larcombe predicts that going forward we can expect to see digital attractions supporting physical ones. For example a virtual rollercoaster, which can build excitement before a visit and allow people to relive the experience afterwards, as well as create the desire to go and visit the real thing, and give a flavour of what it’s about for those who will never be able to visit.

“In the right hands, digital experiences are a great way of being able to connect,” says Hook. “There’s also the potential to make this into an income stream. A museum could create an online show using SmartStage to teleport in experts to present, take questions and use augmented reality props. “There are lots of different ways that this content could be monetised,” he says. “If it’s just consuming content online, with no interaction, that could be free, whereas a charge could be made to ask a question of the person presenting or to see an additional camera angle. Then a higher price could be charged to see all the camera angles or a premium to actually appear on the screen and ask questions.”

Going forward, Hook and Larcombe believe augmented reality will become much more commonplace, with wearable AR devices as common as iPhones, allowing us all to augment our normal vision on a day to day basis. “Attractions operators will be able to take advantage of this technology to create more interactive and collaborative features,” says Larcombe. “The experience could be personalised. With xR you could point your device at the immersive display and the information would appear curated to your needs. The same display could be used to reveal a more pictorial version of the content for young people as they explore the space, or a more detailed text heavy version for adults.”

Whatever happens with COVID-19, 2020 has changed us all, creating a remote audience which is here to stay and offers new commercial potential. Larcombe predicts that going forward we can expect to see digital attractions supporting physical ones. For example a virtual rollercoaster, which can build excitement before a visit and allow people to relive the experience afterwards, as well as create the desire to go and visit the real thing, and give a flavour of what it’s about for those who will never be able to visit.

### Extending the Concept

**Virtual Reality:**
Put something on your head to take you into a siloed immersive environment.

**Augmented Reality:**
Adding digital content over a person’s real vision to advance that individual’s own vision or digital communications.

**Extended Reality (xR):**
An umbrella term covering all these technologies but is now starting to mean technology which is immersing the audience and allowing a shared experience.
PROVIDING TURNKEY SOLUTIONS

Industry innovator, Fun Spot, is on a roll, with a new EMEA office and a range of innovative new products to help operators deliver excellence to the family fun market. We find out more.

Fun Spot, a leader in designing indoor multi-activity leisure centres, offers a full range of options, from trampolines to ninja courses, fun and colourful Clip ‘n Climb Challenges, and interactive attractions.

The company is the sister company of Clip ‘n Climb.

With the sportainment industry rising in popularity and demand, opening a dedicated EMEA sales organisation was a logical next step, allowing the company’s regional experts to provide support to its clients more efficiently.

“We can have a more hands-on approach and react to the needs of our customers more quickly,” says Gina Mackay, Fun Spot architectural project manager. “The launch of Fun Spot EMEA will speed up communication time, improve production time and reduce costs, making us more competitive in the market.”

This move is not an unexpected one for the company, which has made a habit of taking the industry to the next level, ever since it opened its doors nearly 50 years ago.

Industry leader and pioneer

Fun Spot’s humble beginnings trace back to the 1970s, in a small shop in Hartwell, Georgia, USA, where it manufactured the first backyard trampoline equipment in America.

In 2006, the company again became a pioneer in the industry when it designed, manufactured and opened the first Sky Zone® trampoline park and in keeping with this trend, Fun Spot has been the world leader in trampoline design and manufacturing ever since.

In 2018, Fun Spot again expanded its offer by joining the Abéo Group, allowing the company to provide a broad range of adventure solutions internationally, among them, the popular Clip ‘n Climb Challenges.

“As part of the Abéo Group, we have the unique ability to bring multifaceted sales and support to customers with a world-class portfolio of products and services,” says Bill Wild, Fun Spot CEO.

Active Entertainment Solutions

With nearly 50 years’ experience, Fun Spot is a titan of the sportainment industry, having delivered custom-designed turnkey solutions for more than 800 facilities around the world – with 250 projects completed in EMEA alone, including Clip ‘n Climb projects.

“The company has had an international presence for many years, designing and building parks in over 50 countries,” says Wild. “Many of the components are built in markets such as Great Britain and Europe.”

Fun Spot was also a founding member of the IATP – the International Association of Trampoline Parks – in 2012, and helped establish the ASTM safety manufacturing standards, so it’s no surprise that the company cares so much about quality, innovation and safety.

“These are the three key components of our company,” says Wild. “As the
developer of the original trampoline parks and having been there during the birth of the industry, we’ve been the leader in innovation. We’ve honed the quality of our product and we make safety a major priority.”

One of the keys to their success? A customer-driven approach. Fun Spot prides itself on providing 360-degree support, working with customers from project design to the day they open their doors, which gives this innovative company an interesting profile for investors and operators alike.

“Customers choose us for a quick ROI because of the quality,” says MacKay. “Maintenance is a big factor when you have things such as trampolines and fun climbing. We know that what we install is going to last for a very long time.”

Fun Spot looks to the future
With the current health crisis, activity centres have been hit hard.

“This has had a major impact on our industry,” says Wild. “It’s put facilities out of business or made their operations very difficult. We do see, however, that there is still an overwhelming demand from families who want to keep active. People want to enjoy family birthday parties and socialise with other like-minded people.”

In the attractions industry, bringing families together while encouraging an active lifestyle is what sportainment is all about, and this continued demand is what keeps Fun Spot innovating and expanding its businesses globally, partnering with other quality companies – such as sister company, Clip ’n Climb, and other companies within the Abéo Group.

“It’s vital that cleaning protocols get implemented and innovative products are developed to ensure the quality of these environments,” says Wild. “The guest’s health and wellbeing are key.

“We see this as an area of growth, as companies pivot to offer cleaning services and products. That’s part of our package – offering these services to help operators keep their facilities hygienic,” he says.

The company is maintaining its pioneering efforts according to Wild, and currently working in an exclusive partnership with SUMBA to co-develop a risk management and training tool to streamline risk management, equipment maintenance, cleaning and training into one cost-effective platform.

In looking at the future, Wild has a positive outlook, saying: “I believe the future of the industry is strong. Indeed, we – as industry professionals – believe people want to be active. In essence, we truly believe in the power of activity, play and sport to make people happy and to drive ROI.”

More: www.funspot.com/eu
PHIL HETTEMA

While the COVID-19 pandemic is painful and heartbreaking, the attractions industry will come back stronger and more creative than ever, The Hettema Group president tells Magali Robathan

Founded by Phil Hettema in 2002, The Hettema Group is a creator of award-winning experiential attractions and shows, including the One World Observatory in New York at the One World Trade Center; the High Roller Observation Wheel at The LINQ, Las Vegas; and Beyond All Boundaries at the National World War II Museum, New Orleans.

The group is currently working on several new projects, including the Aon Center observatory in Chicago, a “game-changing” new gallery for the Arizona Science Center, a new theatre for the National World War II Museum and a major casino resort in Macau.

An industry stalwart with a raft of awards to his name – including TEA's Buzz Price Thea Award for a lifetime of distinguished achievements – Phil Hettema caught the attractions bug early. “I grew up in southern California and was born the year Disneyland opened,” he says, speaking from his home in California. “You could say I was a bit of a Disney nerd.” Hettema paid his way through college with a part time job at Disney, then later worked in a range of managerial roles for the company, before joining Universal, where he was senior vice president, attraction development for Universal Studios Theme Parks Worldwide for 14 years. In 2002, he launched his own company, The Hettema Group, which has gone on to become one of the leading companies creating immersive stories for theme parks, museums, resorts and more.

Here he talks to Attractions Management about his upcoming projects, the impact of COVID-19 on the industry and why creating amazing experiences is all about emotion.

Can you sum up what The Hettema Group does?

We're an experiential design and production studio with about 35 people on our staff. I've spent 45 years in this industry and I'm from the theme park industry originally so I understand that business pretty well. We now take what we learned there and apply it to the museum sector, to the standalone attraction sector, what we call iconic experiences – the One World Observatory at the World Trade Center in New York, for example – as well as large resorts.

We're also looking at additional industries outside of that circle, including the medical sector, and looking at how the guest experience works. Whichever area we’re working in, it’s all about having a storytelling goal – making sure that guests leave having been changed

There’s some creative destruction going on
Hettema started his career with Disney and launched The Hettema Group in 2002.

PHOTO: JESSE VARGAS
somehow by their experience, whether that’s because they’ve learned something or been emotionally touched or just entertained.

How was 2020 for you?
Like for everybody in the industry, it was an incredibly challenging year. Everything was turned on its head.

The workflow of projects has been radically altered – everything in the theme park business has slowed down tremendously, if not stopped completely. And virtually every other sector had to make decisions about how to move forward.

There I would say we’ve been more fortunate than most in that several of our major projects have made the decision to continue and take advantage of this time to get ahead of the curve in order to have projects that were in the pipeline completed by the time audiences come back.

It’s so painful right now, but I do think that in the long-term, we’re going to learn some very important lessons that will ultimately be of benefit to everybody.

What are your predictions for the attractions industry over the next couple of years?
I regrettably feel like we’re probably in a very constrained situation for the next year at least and then we’ll start to gradually come out of it.

When we emerge from this tunnel we’re in, I think there will be tremendous pent-up demand for ways to connect. There’s a real physiological, emotional and human need to connect with each other in physical space.

When things begin to open up, I think the people in our business will see a huge hunger in demand for places where people can meet that need and quench that thirst.

How will this pandemic change the design of attractions going forward?
Of course, almost every theme park and venue with ride experiences will look very different, because nobody’s going to be willing to invest in things that will force large groups of people to be in the same space. Instead we’ll have to think about how smaller groups of people can move sequentially through the same environment in a way that allows them to communicate and connect, while remaining separate. Museums are already looking at how to open their galleries to groups of people in more immersive and facilitated ways.
You’re the designers of the Aon Observatory in Chicago. What can you tell us about that project?

It’s located right at the end of Millennium Park, in the ideal location to give the most spectacular views of Chicago. The top floors of the building were previously used for mechanical equipment, so there are fantastic big volume spaces that we’re converting into a spectacular observatory. An external elevator system is being added – it will feature one of the world’s longest glass elevators on the outside of a building.

As you start the experience, we’ll give you context into Chicago, so whether you’re a native or a first time visitor, you’ll have a common appreciation of the history and vibrancy of the city.

When you get to the observatory itself, the views will be spectacular, and there will be several different ways to experience them. For those who want a really thrilling experience, there will be an experience ride at the very top, which will take visitors over the edge of the building’s roof and right over Millennium Park.

You’re currently working on the creation of new galleries for the Arizona Science Center. Can you tell us more?

The Arizona Science Center is a fantastic institution; very scrappy but really great at telling stories. They have ambitious plans for a major new Arizona-focused gallery. They really want to turn up the experiential volume and put people in the middle of the experience. It’s a chance to do something really not typical for a museum that I think could be game changing for them and for the museum world.

You’re also working with the National WWII Museum in New Orleans on a new project. What can you tell us about that?

Ten years ago, we were tasked by the National WWII Museum in New Orleans to create a theatre experience that would tell the story of World War II in a fresh new way.

We put together a multimedia documentary narrated by Tom Hanks – who was also the executive producer – in which we tried to bring together the events that
took place right across the world during World War II with a lot of emotion and connection to everybody in that conflict.

We’re working on a new theatre for the same museum right now which takes a much broader view and asks what that fight for freedom meant. It’s a physically engaging show that’s both intellectually and theatrically challenging. We’re about a year and a half away from that opening.

**Which projects are you most proud of?**

The One World Observatory at the World Trade Center in New York was a really important and challenging project for us.

The client wanted an observatory experience in the tallest building in the western hemisphere, and they wanted it to be forward-looking, with a focus on rebirth and rebuilding. It was challenging, because we understood that no-one would walk into that project without having in their mind the fact that the building sits on the same site as the Twin Towers sat before, so we had to put that into context while creating an experience that was very positive and optimistic.

The way we did that was by not just looking at 9/11 to today, but by broadening that time spectrum out and asking what the site looked like 200 years ago. The Elevator Experience is a virtual elevator; as you ascend the building, it’s as though you’re travelling in time. So as you begin your journey, you’re looking at a Manhattan that was mostly underwater, as you make your ascent, you see how Manhattan developed over the decades. The only place that 9/11 and the Twin Towers are mentioned is you see when they’re built, literally next to the elevator and then they disappear on 9/11. When you step off that elevator and get that first spectacular reveal experience at the top, you’re really looking towards the future.

**Who do you respect in the industry?**

I’m a huge fan of the Disney organisation – they’re the 500lb gorilla, but they’ve done that by focusing on innovation and quality on every level. I admire what Universal has done. I personally admire Bob Rogers, his company, BRC and the way they tell stories, which is very different from us (see our profile of Bob Rogers on page 48).
You’ve been in the attractions business 45 years – where are we now in terms of the highs and lows you’ve seen?

The pandemic is certainly the most significant event in my lifetime. I don’t think anybody could have imagined something this cataclysmic – I still have a hard time wrapping my head around the thought that Disney shuttered its theme parks for so long.

We’ve always been a cyclical business, but the curve for our industry has tended to be contrary to that of the larger world. When the world slides into recession or depression, entertainment and attractions often go up. I choose to believe that in the long-term, that will be the effect here. The question is, who will still be around? Who can gut it out long enough to reconstitute themselves again when we begin to pull out of this?

There’s some creative destruction going on that means that when the industry rebuilds itself, it will rebuild in stronger and more vibrant and exciting ways.

The Hettema Group

SELECTED PROJECTS

- **One World Observatory**
  One World Trade Center, New York, US
  The Hettema Group, in partnership with Legends, designed and produced the observation deck experience at the World Trade Center in New York City, US.
  According to Hettema: “One World Observatory is a state-of-the-art guest experience that elevates the One World Trade Center observation deck from a spectacular sightseeing opportunity to an inspirational personal journey.”
  Source: thehettemagroup.com

- **High Roller Observation Wheel**
  Las Vegas, US
  The High Roller, the tallest observation wheel in the world at 550 feet, provides incredible views of the entertainment capital of the world.
  The attraction offers a 30-minute entertainment experience that delivers more than spectacular views – each cabin is like a mini-showroom, complete with music and theatrical lighting.
  Source: thehettemagroup.com

- **Beyond All Boundaries**
  National WWII Museum, New Orleans, US
  This five-year project – from concept to design and production – by The Hettema Group’s creative team incorporates state-of-the-art special effects, immersing the audience in a vivid cinematic experience.
  With life-sized props, animation, and atmospherics, as well as archival footage and sound effects, audiences “feel the tank treads rumbling across North Africa’s deserts, brush snow from their cheeks during the wintry Battle of the Bulge, and flinch at anti-aircraft fire as it tries to bring down their B-17 on a bombing run over Nazi Germany.”
  The Hettema Group is currently working on a new theatre show for the museum.
  Source: thehettemagroup.com
The Themed Entertainment Association (TEA) revealed the winners of its Thea Awards towards the end of 2020, with the list an especially significant one, given the challenges experienced by the industry throughout the year.

Award recipients included PortAventura World in Spain, which was honoured with the Best Attraction award for its Sesame Street: Street Mission area.

Other winners in the ‘attractions’ category included The Twilight Saga: Midnight Ride at the Lionsgate Entertainment World in Zhuhai, China.

Meanwhile, The Buzz Price Thea Award – given to an individual for a lifetime of distinguished achievements – was given to Bob Weis, president of Walt Disney Imagineering.

“The admiration Bob has earned over the decades is rooted in his authentic leadership style – that of a world-class visionary who is sincerely modest, selfless and kind,” said the TEA judging panel.
**THEA WINNERS IN FULL**

- **The Buzz Price Thea Award** *Recognising a lifetime of distinguished achievements*
  - Bob Weis, president, Walt Disney Imagineering

- **Thea Classic**
  - Blackpool Pleasure Beach, Blackpool, UK

- **TEA Peter Chernack Distinguished Service Award** *Recognising exceptional volunteer service to the Association*
  - Dale Sprague – Canyon Creative

- **Thea Awards for Outstanding Achievement (AOA)**
  - **Entrance Experience Limited Budget**
    - St Louis Aquarium at Union Station, St Louis Missouri, US
  - **Attraction**
    - Sesame Street: Street Mission, PortAventura World, Tarragona, Spain
  - **Attraction**
    - Star Wars: Rise of the Resistance, Disney’s Hollywood Studios, FL and Disneyland Park, CA, US
  - **Live Show Spectacular**
    - Qu Yuan, Jingzhou Oriental Heritage Park, Hubei China
  - **Attraction**
    - The Twilight Saga: Midnight Ride, Lionsgate Entertainment World, Zhejiang, China
  - **Attraction Limited Budget**
    - Snorri Touren, Europa-Park, Rust, Germany

- **Technical Innovation**
  - ARGUS LED Dome System

- **Touring Exhibition, Limited Budget**
  - Amazing Pollinators

- **Live Attraction Spectacular**
  - The Bourne Stuntacular, Universal Studios Florida, Orlando, Florida, USA

- **Connected/Immersive Storytelling**
  - The Nest, Los Angeles, CA, US

- **Attraction**
  - Mickey and Minnie’s Runaway Railway, Disney’s Hollywood Studios, Orlando, Florida, US

- **Immersive Design for Special Needs Guests**
  - D.R.E.A.M. Centre, Chailey Heritage Foundation, Lewes, UK

- **Museum Exhibit Design, Limited Budget**
  - Becoming Jane: The Evolution of Dr Jane Goodall, National Geographic Museum, Washington DC, US

- **Themed Hotel**
  - Les Quais de Lutèce Hotel, Parc Astérix, France

- **Technological Innovation of Industry Significance**
  - Tait Navigator Automation and Show Control Platform

- **Airport Destination Experience**
  - Jewel Changi Airport, Singapore
Pittsburgh Children’s Museum’s Tough Art programme challenges artists to create art strong enough to withstand children’s eager hands. Programme manager Lacey Murray talks unexpected responses and weathering the pandemic with Magali Robathan.

Opened in 1983 in the old Allegheny Post Office in Pittsburgh’s Northside, the Children’s Museum of Pittsburgh (CMP) is a hands-on, interactive children’s museum. The museum’s Tough Art Residency Program, which was launched in 2007, challenges emerging and established artists to rethink their work for a new audience – children – while also enabling the museum to grow its collection of interactive artwork accessible to everyone. Each year, several artists are selected to work with the museum and its visitors through the course of the year, culminating in the creation of new artworks to be displayed in an exhibition at the end of the residency.

In 2017 Shohei Katayama showcased his kinetic sound artwork Nimbus Drum.
For artists more used to displaying their artworks in galleries where touching isn’t allowed, the programme presents a new set of challenges. As the organisers explain: “Our visitors are extremely motivated to engage with art in direct, physical, and sometimes aggressive ways that are completely different from a traditional venue.” As well as creating artworks that will interest and excite children, artists have to think about the robustness of their work – how to stop it being trashed by eager little hands – and make sure it’s safe for all ages to interact with.

“Kids climb, kids lick, kids push buttons just to push buttons, kids run off with loose pieces, or worse, swallow them,” programme manager Lacey Murray tells Attractions Management. “It’s really a special kind of environment that can yield such joy and exploration, but the creators really have a lot to take into account to make it not only an enjoyable experience, but a safe one.”

Previous artworks include Neil Mendoza’s Mechanical Masterpieces, which saw classical art reimagined in a way that allowed visitors to ‘poke, switch, disco, water and inflate’ well-known paintings; and Eunice Choi’s Tomato Medley – an interactive wall of ‘tomatoes with various visual and personality traits’.

This year, the in-house residency was cancelled in response to the COVID-19 pandemic, which has seen the museum closed since March 2020. With the museum shut, the management was keen to find a way to engage its audience and connect artists with visitors and vice versa. In response to this challenge, the Tough Art @ Home residency was born, which challenged artists to create an art-making activity that would inspire a do-it-yourself project for people to create at home. Five artists have now been chosen for the residency, and their art making activities, as well as their portfolios, are being shared on the CMP website.

Here we speak to Tough Art programme manager Lacey Murray about the ups and downs of her time at the CMP.

**What are the aims of the Tough Art programme?**

The Museum is committed to working with artists to present excellent contemporary art to our visitors. Every year artists are invited to work with the museum through a multitude of programmes and projects. The annual Tough Art Residency Program enables the Museum to expand its ever-growing collection of interactive artwork which is accessible to all.

The main aim of the Tough Art residency is to bring in artists that are interested in making a hands-on, interactive work of art that is tough enough to withstand children’s interaction. Many artists are used to displaying artwork in a traditional gallery, where touching is not allowed. We invite artists into our space to work with our exhibitions staff, who design and build children’s museum exhibit components and prototype ideas with visitors while developing a new interactive work of art.
**What are the practicalities of creating art that can sustain the rigours of intensive and regular use by children?**

The best way to prepare for the type of interaction a hands-on environment produces is to put the work out and observe. You truly don’t know how the audience will interact until you give them a chance to do so. A big component of the Tough Art Residency is generating ideas throughout the summer, putting things out on the museum floor, observing how visitors interact, and taking that information back to the studio and making adjustments as needed.

I would say that the emphasis on prototyping is something unique to this residency, and the greatest contributing factor to a piece being successful in the end.

**Do children respond to the artwork in unexpected ways?**

Absolutely. You never know what children will do when interacting with a hands-on work of art until they are presented with it. We try to predict behaviour, and have solid past experiences that enable us to try to guess what will happen, but you truly never know.

For an example, one of our Tough Artists created a hand pump attached to the floor. Visitors were to use the device to ‘pump up’ an apple on a screen hanging just above it on the wall. There was a sensor in the pump so that when the pump handle went up and down, the apple on the screen became bigger. Some kids only cared about the pump – they didn’t even look up at the apple. They went to town on the pump, very vigorously, and ended up breaking the sensor. The artist learned this through prototyping, and was able to reposition the sensor in a safer location for the final piece to avoid this breakage.

**What feedback have you had from the artists?**

We started doing ‘exit surveys’ at the end of the residency in 2019, but were able to get feedback by sending a survey to earlier artists as well. It’s been very useful.

As far as what the artists learn, we’ve received a lot of feedback on the value of prototyping and having access to a test audience, who...
How did the Tough Art @ Home residency come about?
With no funding or access to the museum, I was racking my brain for ways we could still support artists. I’m a former art educator, and was thinking of ways we could continue to introduce our audience, virtually, to new artists and their work. The Children’s Museum of Pittsburgh cultivates this wonderful hands-on environment, so I had to think of a way to not only introduce the audience to an artist, but to also give them some type of hands-on activity related to the work. My colleague was able to spare a little bit of money from her programming budget, and the Tough Art @ Home residency was born.

We worked with five artists to develop a hands-on artmaking activity that relates to their artwork. Using our online presence, we present the artist’s portfolio and practice with our audience, along with the artmaking activities they created inspired by their work. You can find the 2020 Tough Art @ Home projects on our website (pittsburghkidsdesign.org/tough-art-home-2020-artists).

How did the COVID-19 pandemic affect the 2020 programme?
Right as America was shutting down in March, we were in the process of evaluating applications and selecting artists for the 2020 residency. We made the tough decision to cancel the residency, and it ended up being the right decision because we weren’t able to reopen during the summer. We informed artists and let them know that their applications would carry over to the next year if they so chose.

I didn’t know any of these artists personally, but it was a very difficult time for me having to write text and publish that the residency was cancelled for the year. We’d worked hard to get the residency in a good place over the years, and right when we were finding our footing, we had to take a step back. I felt bad for the artists and having to take away the opportunity, but it was so out of my control.

Do you think any positives will come out of the pandemic for the Children’s Museum of Pittsburgh?
I’ve found many silver linings during the pandemic. The pace at which we worked, from project to project, installation to installation, left us with little room to reflect and truly get the most out of the experiences we were producing. This time to slow down has allowed us to do that and think about what works, what doesn’t, and get creative with new ideas.
It’s vital to understand what it means to be exiled

Dorte Mandrup
At the end of the summer of 2020, Danish architect Dorte Mandrup revealed visuals of a new Berlin museum that will bring to life the stories of the hundreds of thousands of people exiled from Germany by the Nazi regime. The Exile Museum is due for completion in 2025 and will incorporate the ruins of the Anhalter Bahnhof railway station, which was used by people fleeing the country during World War II before it was bombed in 1943.

The museum will include biographies of famous exiled Germans – including Albert Einstein and Thomas Mann – as well as ordinary people forced to flee their homes during the war.

“It’s the most fantastic thing to be creating a place where the understanding of exile will be illuminated,” says Mandrup, speaking to me from her airy, light studio in Copenhagen. “This museum is so important; we have millions...
of people forced to flee their countries right now. It’s vital to have empathy for people forced to leave everything they know.”

This is the latest project from an architect responsible for a series of unique and intriguing attractions buildings that include a whale observatory in Norway, a climate change museum in Greenland and a visitor centre at the Wadden Sea, which is Denmark’s largest national park and a UNESCO World Heritage Site.

“We love to work with culture and landmarks,” says Mandrup. “Every architect dreams of designing museums – you want to be part of something that has importance. It matters to us that the buildings we’re designing and the exhibits happening inside them are meaningful.”

**THE EXILE MUSEUM**

The idea for the museum was proposed in 2009, when Nobel laureate Herta Müller wrote an open letter to German Chancellor Angela Merkel proposing a museum of exile. A civic initiative, the Stiftung Exilmuseum Berlin was established in 2018, by Herta Müller, former German President Joachim Gauck, and the art dealer and cofounder of Villa Grisebach, Bernd Schultz, to develop the museum. Largely financed by private donations – including €6.3m raised by Bernd Schultz in an auction of artworks from his private collection – the museum is estimated to cost around €27m.

The museum’s focus will be on stories and biographies told via multimedia exhibits rather than on the display of material objects, with exhibitions working in “a very media-intensive way with scenographically conceived spaces,” according to the architect.

The ruins of the Anhalter Bahnhof train station – which was used by many to leave Berlin and by the Nazis to deport Jews to the Theresienstadt concentration camp – are being left intact and incorporated into Mandrup’s new three-storey building.

Visitors will arrive at the museum via the curved entrance into a large, glass-sided foyer, with cobblestones that echo the stones of the plaza outside. “The foyer connects to all of the galleries, so it will be a place people can come out to reflect,” explains Mandrup, adding that the vaulted space was designed to echo the large spans found in railway stations. “We wanted to enhance the emotional feeling of being in transit by creating these large vaults. The ground floor space is very open and, I think, quite emotional.”

The museum will house permanent and special exhibitions, as well as a space exploring the history of the Anhalter Bahnhof station itself.
SUPPORTING THE CONTENT

When designing museums, Mandrup says it is important to work with exhibition designers from an early stage, to ensure that the architecture enhances the visitor experience.

“It’s vital that the exhibition isn’t working against the building and vice versa,” she says. “You need to understand the needs of the designers and the curators. It’s also crucial to have exhibition designers that understand that the connection between the architecture and the exhibition is important, otherwise the visitors will feel like they’re in a black box. The relationship between what you see in a museum and the building itself is important in order to feel you’ve had a humane experience.”

THE WHALE

In 2019, Dorte Mandrup won an international competition to design The Whale, an Arctic attraction on the Norwegian island of Andoya that will allow visitors to experience and get a better understanding of migrating whales in one of the world’s best places to see the animal close up. Mandrup’s sloping, whale-inspired building will also house exhibition spaces that will tell the story of the whale, as well as a café, shop and office.

A deep sea valley a few miles from the shore is visited frequently by migrating whales, and the gulf stream means it’s less cold than other places in the Arctic, making it an excellent place to see the creatures.

Light open spaces at The Whale will host exhibitions about the marine mammals, while the roof will provide views of migrating whales.
EXILE MUSEUM, BERLIN

In August 2020, Dorte Mandrup won the international competition to design the new Exile Museum on Askanischer Platz, Berlin, which will tell the stories of the millions of Germans exiled by the Nazi regime.

The museum will house a permanent exhibition and special exhibitions as well as education facilities and a restaurant. Dorte Mandrup was supported by architecture firm Höhler & Partner and landscape architects TOPOTEK1 from Germany, along with the international engineering firm Buro Happold in the competition. The Exile Museum, Berlin is estimated to cost £27m to build, and is due to open in 2025.

THE WHALE, ANDENES, NORWAY

The new Arctic attraction, The Whale – located in the small Arctic town of Andenes in Norway – will ‘tell the story of the big inhabitants of this underwater world’ from a scientific, cultural and artistic viewpoint.

The curved building will rise gently from the landscape, providing column-free exhibition space and dramatic views of the sea and the whales from both inside and from the roof. The attraction is expected to open in 2022.

“...the building is very fitted to the landscape; when you’re inside, you’ll almost feel as though you’re in a cave; as though a thin layer of the earth has been lifted up by a giant and you’re hidden underneath,” says Mandrup. Inside, exhibitions will focus on the story of whales from a cultural, scientific and artistic viewpoint, inspired by the animals’ journey around the globe.

THEICEFJORD CENTER

Mandrup has also used her skill in working with the landscape to create the designs for Ilulissat Icefjord Centre, a research centre and visitor attraction located 150 miles north of the Arctic Circle on Greenland’s west coast.
The centre will allow researchers to study the 250-year-old Ilulissat Icefjord glacier, and act as a meeting place for visitors to learn about the earth’s changing climate. Groundbreaking for the project took place in the summer of 2019, and it is due to open in the summer of 2021.

Designed to blend into the dramatic scenery, the centre features a gently sloping wooden boardwalk leading up to a curved roof, which will act as a gathering space and viewing platform for the glacier and surrounding landscape. “The Icefjord area carries 4,000 years of cultural heritage and is essential for the understanding of climate changes,” says Mandrup. “It will tell the story of ice, of human history and evolution in both a local and global sense.”

**LOOKING FORWARDS**

For Mandrup, designing with the challenges of COVID-19 in mind poses a dilemma. “Social distancing is about having enough space, but on the other hand, as architects, we want to design places for people to meet,” she says. “If you focus on social distancing, you’re creating architecture where people don’t meet, and that would be terrible.”

**ILULISSAT ICEFJORD CENTRE, GREENLAND**

Looking out onto the ancient glacier of Sermeq Kujalleq on the western coast of Greenland, the Ilulissat Icefjord Centre will act as a research centre for scientists to observe the effects of climate change and for visitors to learn about the topic. Designed by Dorte Mandrup to blend in to the dramatic landscape, the centre will offer views of the glacier, and will “tell a story of ice, of human history and evolution on both a local and global scale.”

The client is the Government of Greenland, Qaasuitsup Kommunia & Realdania. It is due to open in summer 2021.

Despite the likely ongoing challenges of the pandemic, 2021 looks set to be a good year for Mandrup and her practice, she says. “2021 will be mainly about moving several really exciting projects onwards. We’re opening the Icefjord Centre in midsummer, we’ll have full speed on doing the drawings for the Exile Museum and are working on a wooden mixed use building on Gothenburg’s riverfront in Sweden.” “I’m looking forward to an extremely exciting year,” she concludes.
Linda Dong

As the Nickelodeon Playtime family entertainment centre launches in Shenzhen, China, Magali Robathan speaks to the president of China Leisure about the fast-changing Chinese attractions industry, the power of IPs and how the pandemic has changed their plans.
The Nickelodeon Playtime Family Entertainment Centre at the Shenzhen OCT Happy Harbor Mall in Shenzhen, China, sees ViacomCBS partner with new group, China Leisure, to bring Spongebob Squarepants, Dora the Explorer, PAW Patrol and Teenage Mutant Ninja Turtles to life.

China Leisure and Nickelodeon Experience Design worked with Jack Rouse Associates and Forrec to create the 1,800sq m centre, which features more than a dozen attractions across five themed zones. The attractions are centred around active and immersive play and include drop slides, themed soft play areas, foam pits, interactive games, climbing walls and playground obstacle courses. Aimed at children aged between two and 11 years old, the entertainment centre costs US$40 for one child and one adult.

“We see rapid growth in family entertainment spending in China; children's entertainment centres are really gaining a lot of traction here,” says China Leisure president Linda Dong. “Malls are actively looking for experience-based tenants right now. F&B and children’s experiences are really driving footfall at the moment.”

**NON-DIRECTED PLAY**

The attractions at Nickelodeon Playtime are child-directed, with no customer journey – families are able to choose how to use the facilities and in which order, says Dong. “We’re seeing a growing trend for immersive play in China,” she adds. “It’s not just about telling a really good story and having lots of themed lands and shows, it’s about allowing the guests to create their own stories. It’s up to the families and kids to decide how they want to use the space. “Children have such great imaginations – our goal was to create amazing, immersive lands and zones where the kids can do their own thing.”

The attraction features a lot of media and AV games, says Dong. “Our flagship media attraction, Jellyfish Fields, is a 12-player game using projection technology across three walls. Kids are given nets, there’s an introduction with Spongebob Squarepants inviting the kids to take part, and they’re tasked with catching jellyfish from the interactive wall.”

Other attractions include Rocky’s Recycling Challenge, which sees children sorting ‘trash’ from Adventure Bay to support the social recycling push in China, and a Teenage Mutant Ninja Turtles-themed adventure playground. The centre also features a play café, with soft play elements, a foam pit, and a meet and greet stage.
CHINA LEISURE
Dong grew up in Canada and studied economics at the University of Pennsylvania, before starting her career with Goldman Sachs and then returning to China to work for the M&A team of Morgan Stanley Real Estate Fund. She later joined her family business, urban operator China Creation Group, where she worked with Nickelodeon on the Nickelodeon Universe indoor theme park at the Mall of Chongqing.

“After that experience I wanted to work with IPs more,” she says. “China Creation has a really strong portfolio and a good following in China, but it’s not always easy for them to find partners who can understand and prioritise their needs for quality and brand image and who understand the whole approval process.

“We’ve been able to build a strong international team and we’ve been in China doing developments and working with theme parks for a while now.”

An affiliate of China Creation, the China Leisure Development Company was founded a year ago to focus on the leisure and attractions market in China. The company partners with top international IPs to bring their dedicated location-based entertainment products to China. “Working with IPs is a fairly niche activity in China, especially licensing them,” says Dong. “We thought we had strong capability in this area so we moved into the sector.”

The short-term focus for China Leisure is on FECs, due to their shorter development turnaround, adds Dong.

“Theme parks are massively capital intensive and much slower to build out in terms of government permits,” she says. “FECs are very fast to build out and pretty much all the malls want them.

“For Nickelodeon to trust us with its brands is a big honour and a achievement.”

While she started her career in the financial sector, Dong has found her passion in the attractions market. “It’s just such a fun, creative industry,” she says. “And there are a lot of great products globally that I want to bring into the Chinese market.”

As part of her research, Dong said she rode 70 coasters across four continents in the space of a year. So which parks really impressed her?

“It’s Disney and Universal – hands down. We’re obviously not operating on those kinds of scales, but it’s useful for us to try and work out what makes those attractions so special and

For Nickelodeon to trust us with their brands is a big honour

Bright colours and clean design make the centre attractive for guests
try to do that on a smaller and more intimate scale. We’re all about creating experiences that balance our capital needs as a private investor with that type of quality and experience.

“I was also inspired by the immersive nature of the Harry Potter and Star Wars attractions. For us, it’s not about saying: ‘Here’s Spongebob – now let’s take a picture’. It’s about trying to bring the children into Spongebob’s world and showing them what it’s like to be him for a day.”

DEVELOPING THE CONCEPT
Forrec did the initial concept design for the Nickelodeon Playtime Centre, while JRA provided masterplanning, writing and concept development, attraction and graphic design.

Despite the pandemic, Dong says they managed to continue without too many hold ups.

“We were delayed by about a month,” she says. “The good thing was that the height of the pandemic was our design phase, so we could focus on that. When we started construction, everything had pretty much cleared up in China.”

The timing also meant that there was no need to redesign the centre, as, at the time of writing, China has no extra restrictions on family entertainment centres.

“There are precautions in place, but these are in place anyway for the flu season,” says Dong. “Typically with FECs we carry out temperature checks, we always have alcohol wipes at the counters and we sterilise our facilities every few hours.”

ABOUT CHINA LEISURE
China Leisure Development Co (CLDC) is dedicated to developing and managing leisure experiences and projects in China.

The company partners with international IPs to bring their location-based entertainment products to China.

With a team of international and local professionals CLDC has experience in IP licensing and approvals management, design and development management, budget and procurement management, and operations management.

China Leisure is also working on a second project, another family entertainment centre – this time with Hasbro – which is due to open in Beijing in 2021.

LEISURE IN CHINA
Looking forwards, Dong expects to see significant growth in the attractions market in China over the coming years. “I’m very excited for the future of this market, she says. “It’s definitely entering its growth phase.

“Early on some of the projects opening in China weren’t up to scratch, but the entrance of Disney and Universal into the market has really encouraged theme parks and attractions to start upping their quality.

“I think we’ll see a wave of fresh demand for local attractions,” says Dong. “Beijing and Shanghai attractions are priced at a level that’s unattainable for the vast majority of Chinese consumers. There’s a whole market for lower price attractions at local and regional levels.”
LianTronics’ giant curved LED wall with glasses-less 3D spaceship display effect has attracted many on the street of Chengdu, China and trended on Twitter. A 3D Star Trek-like spaceship breaks out from the LED wall and turns its head around. The jaw-dropping 3D special-effect video wall saw passers-by pulling out their cell phones and recording the show.

The L-shaped curved LianTronics LED wall is located in the Sino-Ocean Taikoo Li Chengdu shopping complex. Wrapping the facade of Yingjia Building, the gigantic LED wall is facing a crossroad of Chunxi Road, of which the opposite side provides a perfect viewing angle to enjoy the show without 3D glasses.

This gigantic LED wall with a total area of 912.92sq m was assembled by LianTronics P8 LED displays with patented zigzag-pattern masks, which can effectively diffuse sunlight reflection to present richer colours. The fully waterproof modules are anti-UV to avoid deformation and stabilise vivid outdoor broadcasting.

At the same time, the high-contrast ratio, refresh rate and ultra-uniform colour demonstration contribute to dramatic and realistic-looking images.

“We assembled the wall twice to achieve this extraordinary display effect,” said Tao Wang, project manager at LianTronics. “We disassembled the screen, re-schemed the wall structure, reproduced the displays, and installed the LED wall once again in order to narrow down the curvature of the corner. This helps to generate a more stereoscopic sense of the finished wall. The redesigned customised modules for the curved corner can be spliced without seams to realise the smooth broadcasting transition and create the stunning effects and images.”
Christie projectors power Five Senses Bubble dome, explains April Qin

Christie® GS Series 1DLP® laser projectors are delivering vivid and lifelike visuals in a new dome theatre located in Xiong’an New Area, a sustainable city in Hebei province, China, developed by the government to prioritise “green development and environmental protection”.

Known as the Five Senses Bubble, it is the first dome theatre in the fledgling city and is situated along Luosa Street in Rongcheng County, which has been earmarked for cultural and community development under the “Harmony Life” theme. With a diameter of 8.5m and a height of 6.3m, the Five Senses Bubble is constructed using air-film reinforced concrete, while its exterior is adorned with golden spirals to create artistic effects that represent the different senses. It opened in January 2021.

Inside, the visuals are powered by five Christie DWU8902-GS 1DLP laser projectors fitted discreetly around the dome theatre to display highly immersive images measuring 3.2m in height. The projectors were installed and commissioned by Zhongqing Yingye Group, which was appointed the distributor of Christie’s 1DLP projection systems in 2020.

April Qin, director of enterprise sales at Christie China, commented, “Kudos to Guangzhou Zhaocheng Electronic Technology for completing this amazing dome installation with our tried-and-tested Christie GS Series, which is the go-to projection system that offers brilliant colour and premium image quality. This is a great combination of technology and culture that provides a highly immersive visual experience for all visitors.”

TechnoAlpin creates falling snow experience for Swarovski Crystal Worlds museum, reveals Lukas Dusini

Snowmaking specialist TechnoAlpin has partnered with Swarovski to create a 65sq m indoor snowfall experience at Austria’s Swarovski Crystal Worlds museum, one of the biggest tourist attractions in the country.

TechnoAlpin is known for providing snow for guest experiences in destination spas across Europe, but typically creates the snow by spraying cold compressed air and water in a room at night when it’s empty.

But it used new technology for the Swarovski installation to provide snow in a more gentle, natural manner, enabling guests to experience real snow falling.

“This installation is our first simulation of natural snowfall, a feat that took our engineers over two years to achieve,” said CEO Erich Gumerer. International sales manager for indoor snow, Lukas Dusini, also commented, saying: “Snow can be used indoors in all its diversity.”

Swarovski is using the natural snowfall in its Chamber of Wonder which includes a Silent Light crystal tree designed by Alexander McQueen and Dutch designer Tord Boontje.

Boontje said: “Snowfall adds another dimension to this room. What is real versus an illusion of nature? The ephemeral appeal of snow crystals is in direct contrast to Swarovski crystals, whose splendour lasts forever.”

TechnoAlpin has created the illusion of gentle snowfall
DELIGHT YOUR VISITORS WITH PURE SNOW

TECHNOALPIN® INDOOR
EXPLORE THIS UNIQUE EXPERIENCE THAT WILL GUIDE YOU THROUGH TIME & SPACE!

T I M E  R I D E R

when are you?

WORLD’S LARGEST BOWL