

# Attractions management

VOL 15 Q2 2010

**SIMWORX**

TO SUPPLY FIRST 4D  
TO NEW ZEALAND!



**International  
Antarctic  
Centre**  
The World's Best Antarctic Attraction

# SIMWORX

## NEWSLETTER APRIL 2010

**Simworx to supply New Zealand's first 4D Attraction, at the International Antarctic Centre**



Simworx has won an order from the International Antarctic Centre in New Zealand to supply a 50 seat 4D Cinema during 2010.

To consist of a full turnkey system the project will include the company's Dimensions 4D Effects Seats incorporating seat movements, vibration, water spray, leg ticklers and wind, 3D Projection System, Surround Sound and In Theatre effects including low smoke, aroma and bubbles.

Managing Director of the IAC, Richard Benton commented "We scoured Europe looking at various 4D attractions, and having seen the turnkey solutions that Simworx provided at Drayton Manor Park and The Beatles Story, we had no doubt that we wanted Simworx as our supplier for this prestigious project"

The 4D attraction will feature a custom film produced in HD Live Action 3D, based around an epic Antarctic Adventure.

**Simworx 4D Effects Theatre Opens at Lands End, UK**



A new Simworx 100 seat 4D Effects Theatre has just opened at Lands End in the UK.

A full turnkey solution was provided including the company's Dimensions 4D Effects Seats incorporating seat movements, vibration, water spray, leg ticklers and air blast, 3D Projection System, Seating Grandstand, Surround Sound and In Theatre effects including low smoke, aroma, bubbles and wind

Showing the Red Star film, The Curse of Skull Rock, the theatre is extensively themed both internally and externally

Lands End General Manager David Bryans commented "The new 4D Theatre is already a big hit with our visitors. The quality of the theatre and the service provided by Simworx was absolutely first class!"

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# Attractions management

VOL 15 Q2 2010

**THE WIZARDING WORLD OF  
HARRY POTTER**  
THE MAGIC'S ABOUT TO BEGIN

## IN DEVELOPMENT

The most exciting projects  
underway around the globe



## MERLIN ENTERTAINMENTS

CHIEF EXECUTIVE NICK VARNEY AND HIS TOP TEAM TALK ABOUT THE COMPANY'S FUTURE

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SCIENCE CENTRES  
ZOOS & AQUARIUMS  
MUSEUMS & HERITAGE  
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WATERPARKS  
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ON THE COVER: The Wizarding World of Harry Potter, p36

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# EDITOR'S LETTER

## OTHER DIMENSIONS

**T**he glorious world of 3D has hit the mainstream, with films like *Alice in Wonderland*, *Clash of the Titans* and *Avatar* drawing record audiences. Suddenly, from being a treat confined to specialist attractions like IMAX, people can enjoy 3D in their local cinema. Apple is allegedly even developing the unofficially named 'ispecs' - glasses which will enable us to enjoy 3D films while on the move.

Adding 3D to a standard cinema has enabled operators in this sector to fund a whole new round of capital investment by allowing anything up to a quadrupling of standard ticket prices. Now a steady flow of high-profile films is coming on-stream to drive consumer demand and operators are embracing the format with gusto.

Building on this, 3D is being promoted by TV broadcasters as the next big thing in the product lifecycle. It will require new hardware and higher fees, and as a result, is being adopted as the upgrade to follow the rollout of HD. The major manufacturers expect 3D TV sales to account for more than 50 per cent of their turnover by 2012, while larger, frame-free TVs are enabling more people to afford a home cinema.

All this competitive pressure from the mainstream entertainment industry is inspiring attractions to raise their game and go one better, by offering 4D and 5D experiences and bespoke films and we're seeing an acceleration of investment in this sector.

**With major filmmakers now working in the format and massive budgets involved, we need to make sure we do it well if we want to keep the attention of an increasingly discerning public**

As consumers become more familiar with the new 3D format, the attractions industry will need to keep raising the bar when it comes to the visual thrills on offer. Fortunately, there's every indication we'll rise to the challenge, with new announcements on high end 3D, 4D and 5D film-based offers coming thick and fast.

Recent examples are the Terra Botanica theme park in France, which opens this month and includes an immersive 4D theatre, and Edinburgh's Our Dynamic Earth. The science centre has just opened a £700,000 (US\$1.084m, €793,000) attraction called 4DVENTURE featuring a bespoke eight minute film with a storyline by NSC Creative.



In this issue, we look at the options for customised film making and ask our panel of experts how attractions owners can commission their own films (page 30). We also review trends in 3D and 4D planetarium films on page 32.

It's never been a better time to pick up on the trend, and it's a format that seems to suit pretty much every type of attraction. The challenge, however, will be to keep ahead of the rapidly evolving technology. With major filmmakers now working in the format and massive budgets involved, we need to make sure we do it well if we want to keep the attention of an increasingly discerning public.

Liz Terry, editor, attractions@leisuremedia.com

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PHOTO: © NUAL SPINELLA



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# MUSEUM NEWS



The museum will explore the history of British jews

## London's Jewish Museum reopens

A London museum dedicated to Jewish culture, heritage and identity in the UK reopened to the public on March 17 following the completion of a major £10m (US\$15m, €11m) redevelopment.

The Jewish Museum London in Camden Town has been expanded and revamped as part of the scheme, which has involved architects Long and Kentish and exhibition designers Event Communications.

New displays and exhibitions across four permanent galleries aim to provide visitors with the chance to explore Jewish life and culture as part of the wider history of Britain. Features include the recreation of an East End street and tailor's workshop, a map illustrating where Jews have come from across the world

and a number of historic artefacts. The Welcome Gallery introduces visitors to a range of Jewish people; History: A British Story examines how and why Jewish people settled in the UK; and Judaism: A Living Faith explores the religion.

The final gallery – the Holocaust Gallery – explores the impact of the Nazis through the first-hand experience and personal items of Leon Greenman, a London-born survivor of Auschwitz, as well as other survivors who lived in the UK.

Rickie Burman, director of the Jewish Museum, said; "What it means to be British and the issue of cultural identity has never been more hotly debated. This museum will explore these issues in the context of one of Britain's oldest immigrant communities."

## Revamp for kids Museum

Manitoba Children's Museum in Winnipeg, Canada, is to undergo a CA\$10m (US\$10m, £6.2m, €7m) redevelopment. Work on the attraction will include doubling the number of galleries from six to 12, the construction of a new Welcome Centre and the renovation of the existing Arts & Exhibition Centre.

There will also be an exclusive toddler gallery, called Tot Spot, to meet the needs of the museum's youngest adventurers. The multi-functional Arts & Exhibition Centre will cater for travelling exhibits and special events.

## Exploratorium's plans get boost

The San Francisco Exploratorium's plans to relocate recently received a US\$90m (£58m, €66m) boost. The anonymous donations, the largest in the museum's history, came from two benefactors – but on the condition that Exploratorium can raise a further US\$40m (€29m, £26m) for the project.

The cash will be used to renovate a pier on the city's waterfront – which will be then used as the attraction's new home, as opposed to its current site at the Palace of Fine Arts.

Work on the museum is expected to be completed in 2013.

## Smithsonian opens new evolution hall

A new exhibition hall dedicated to the discovery and understanding of human evolution has opened at the Smithsonian's National Museum of Natural History in Washington, DC, US.

The opening of the US\$20.7m (£13.5m, €15.1m) David H.Koch Hall of Human Origins coincides with the 100-year anniversary of the museum's official opening on the city's National Mall. The 15,000sq ft (1,400sq m) exhibition highlights the major milestones in the origin of human beings and the periods that have characterised the ancient past of the human race.

On entering from the museum's Sant Ocean Hall, visitors travel through a time tunnel depicting life and environments over the past six million years. They will also be able to interact with the forensically reconstructed faces of prehistoric human relatives, a feature the museum says is designed to provide visitors with a sense of personal involvement.

Other key features in the exhibition include interactive snapshots in time based on the actual field sites where research is being conducted and a display of more than 75 exact replica skulls.



The museum's new 'skull gallery'

# HERITAGE NEWS



The UK's landmarks attract tourists from all over the world

## Heritage tourism worth £21bn a year

Research by the Heritage Lottery Fund (HLF) has revealed that the heritage tourism industry contributes nearly £21bn (€24bn, US\$32bn) to the UK economy.

According to the Oxford Economics study, the sector is worth more to the UK in terms of gross domestic product (GDP) than the advertising, car manufacturing or film industries. Commissioned in 2009, the HLF research explored how tourism visits and spending are driven by heritage and looked at a random sample of 62 schemes completed between 2004 and 2007.

Among the key findings is that more than 10 million holiday trips are taken by overseas visitors to the UK each year, with 40 per cent citing heritage as a primary reason for visiting the country.

The research found that heritage tourism is a £12.4bn (US\$19bn, €14bn) a year industry, including the broader expenditure driven by a desire to visit heritage attractions, such as local restaurants and hotels.

Investing in success: Heritage and the UK tourism economy has also revealed that heritage tourism supports 195,000 jobs.

## London set for new heritage centre

A major new heritage centre and tourist attraction is poised to be created in Guildford, Surrey, UK under proposals approved by the local authority.

Guildford Borough Council's (GBC) executive committee has given the green light for a public consultation to be held into the project, along with the preparation of a Heritage Lottery Fund (HLF) bid. The council is set to bid for around £1m (US\$1.5m, €1.1m) HLF funding towards the scheme, although an additional £2m (US\$3m, €2.2m) is required to complete the scheme.

Under the proposals, an enhanced museum would be created with an entrance from the castle grounds into a new reception area, café and exhibition gallery within the castle ruins.

Two floors of the town's Castle Arch House would be opened to visitors to provide accessible facilities and displays, as well as education space for activities and events.

GBC councillor Jen Powell said: "This is an opportunity to develop the museum and the castle into a major heritage hub and tourist destination."

## Luna Park listed on State Heritage Register

Luna Park, located on Sydney's northern foreshore adjacent to Sydney Harbour Bridge and one of Australia's best known amusement parks, has been listed on the State Heritage Register.

Originally opened in 1935, the park was reopened in April 1994 following a major

refurbishment and restoration programme, but still boasts its famous entrance face and towers and art deco style.

Formally announcing the move to list the site, Premier Kristina Keneally said: "Luna Park is a Sydney cultural icon which is an excellent example of amusement park and fantasy architecture in the Art Deco style of the 1930s, which provides colour and life alongside the harbour."

Two other iconic Sydney landmarks have also been listed, the Queen Victoria Building, built in the 1890s and now home to a shopping centre, and Sydney Town Hall, built between 1869 and 1889.

"These three sites embody the history and identity of Australia's global city," said Keneally. "This will also ensure that they can be enjoyed for generations to come. It is impossible to think about Sydney without these three landmarks."



The iconic entrance to Luna Park



The museum's auditorium

## Zulu museum opens in South Africa

A museum charting the history and culture of the Zulu has opened at the Emakhosini Ophathe Heritage Park in KwaZulu Natal, South Africa.

The museum is the latest addition to the park, designed to pay homage to the kings of the Zulu nation buried there. The 200sq km park and its attractions are operated by Amafia, an independent heritage body.

# GALLERY NEWS



The new 12,000sq m building will be located on Quebec's main promenade

## OMA wins Quebec museum competition

Netherlands-based The Office for Metropolitan Architecture (OMA) has won a competition for a major expansion to the Musée national des beaux-arts du Québec (MNBAQ) in Québec, Canada.

The 12,000sq m (129,000sq ft) new building is scheduled to open in 2013 and will be situated at the point where downtown Québec City meets Battlements Park and form the company's first built project in Canada. The design, led by OMA partners Shohei Sigematsu and Rem Koolhaas in collaboration with associate Jason Long,

was chosen unanimously from five submissions. The expansion – linked underground with MNBAQ's three existing buildings – is located on Québec's main promenade, Grande-Allée, adjacent to St. Dominique Church. The design aims to integrate the building with the surrounding park and integrate new links with the city.

Three stacked galleries of decreasing size will house contemporary exhibitions, the permanent contemporary collection and design/Inuit exhibits as well as a 14m-high (46ft) Grand Hall.

## NC gallery to open new extension

The North Carolina Museum of Art in Raleigh, US, will open its 127,000sq ft (11,800sq m) extension to the public on 24 April.

The new single-storey building, designed by New York-based Thomas Phifer of Thomas Phifer and Partners, was created specifically to showcase the gallery's permanent collection of more than 5,000 pieces of art spanning antiquity to the present day.

Surrounded by sculpture gardens and pools, the expansion project will also transform the Museum's 1983 East Building, designed by the architect Edward Durrell Stone, into a centre for temporary exhibitions, education and public programmes, and public events, as well as a place for collections management and other administrative functions.

Upon completion, the 164-acre campus will be one of the US's largest art museum parks, with walking paths, bike trails, ecological projects conceived with artists, and site-specific commissioned works of art in a rolling green landscape.

## Modern art gallery for Kolkata

Swiss architects Herzog & de Meuron have been commissioned to design the Kolkata Museum of Modern Art (KMOMA) in Calcutta, India. The US\$50m (£30.6m, €34.4m) project will be built on a 10-acre plot that was donated by the Indian government, which is also providing US\$32m (£21m, €24m) of the funding.

The 300,000sq ft (28,000sq m) museum will exhibit a collection ranging from 19th century to art to contemporary art. The KNOMA Trust was set up 2003 to develop the museum.

One of its trustees, Rakhi Sarkar, told a press conference that: "The museum will have four separate wings, with each one exhibiting works of art from the different regions of the globe."

## The McManus art gallery reopens

The McManus art gallery in Dundee, Scotland, has reopened following a £12m (US\$18.5m, €13.5m) redevelopment.

The main entrance to the attraction has been completely redeveloped, and inside the gallery spaces have been upgraded

with interactive displays and visitor stations. A new retail and café area has been added, complete with an outdoor terrace; a new top-lit atrium.

There is also a new creative learning suite, catering for outreach programmes as well as inhouse workshops and classes.

Much more emphasis has been placed in interactivity, with a number of displays being added to the existing collections.

The works were funded in partnership by Dundee City Council, the Heritage Lottery Fund, the European Union, Historic Scotland, and The McManus Fundraising Appeal.

To celebrate the opening, a new exhibition – called The Making of Modern Dundee – has been opened. The gallery charts the rapidly-changing city from 1850 to the present day, including the skeleton of the famous Tay Whale.



The gallery in Dundee, Scotland

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# THEME PARK NEWS



Visitors will be taken on a "forbidden journey" by Harry Potter and his friends

## June opening for Harry Potter world

The world's best known boy wizard is set to arrive in Florida, US on 18 June, with the opening of The Wizarding World of Harry Potter at Universal Orlando Resort, US.

The new attraction will comprise three themed elements - *Harry Potter and the Forbidden Journey*, a newly created ride system at the heart of Wizarding World, plus *Flight of the Hippogriff* and *Dragon Challenge*. Within the castle are iconic locations taken from the films, including Dumbledore's office; the Defence Against the Dark Arts Classroom, where visitors

first meet Harry, Ron and Hermione; the Gryffindor Common Room; and the Room of Requirement, plus the Dungeon passageway and hallways of Hogwarts.

Elsewhere are talking portraits including the Fat Lady and the never-before-seen founders - Godric Gryffindor, Salazar Slytherin, Helga Hufflepuff and Rowena Ravenclaw; the Sorting Hat; the One-Eyed Witch statue; and the Mirror of Erised.

The full ride, including the queue line, is anticipated to take about an hour. (*For an in-depth opening report, see p. 36.*)

## Six Flags closes Kentucky Kingdom

Theme park operator Six Flags is to close its Kentucky Kingdom operation.

The company had recently proposed a new lease arrangement to the Kentucky State Fair Board, a move designed to enhance the viability and future of the park. When the proposals were not accepted, Six Flags announced that the park would close. It is now working on plans to relocate affected employees and move several of Kentucky Kingdom's more than 40 rides and attractions to one of its 13 other operations.

Mark Shapiro, Six Flags president and CEO said: "We are deeply disappointed to be leaving such a great fan base in the greater metropolitan area of Louisville and we are grateful to the thousands of employees at Kentucky Kingdom and the millions of guests for their dedication, support and loyalty over the years.

"This action relates solely to Kentucky Kingdom. Our other parks, which reside largely on company-owned land, will be unaffected and will open as scheduled."

## Paramount plans Spain's largest park

Film company Paramount Pictures is looking to build what would be the largest theme park and entertainment centre in Spain in the south eastern region of Murcia.

Reportedly aimed at competing with Disneyland Paris, the project will also incorporate a film studio designed to centralise all of Paramount's production in Europe.

Spanish minister of culture, Pedro Alberto Cruz, said he has received a letter from Paramount's licensing division expressing their interest in launching the project once its economic viability has been proven.

According to Cruz, the 2.5sq km complex would increase the number of tourists to the area by three million.

## Aldar Properties suffers huge losses

Aldar Properties, the UAE property group responsible for many Middle Eastern attractions - including the forthcoming Ferrari theme park - has seen its full-year profits fall from AED3.4bn (£596m, €672m, US\$918m) to AED1bn (£175m, €197m, US\$270m). Revenue fell from AED4.9bn (£859m, €970m, US\$1.3bn) to AED1.9bn

(£333m, €375m, US\$513m), while EBITDA dropped from AED3.3bn (£579m, €653, US\$892m) to AED906.8m (£159m, €179m, US\$245m). The group blames the decrease in revenue on a lower sale of land plots during 2009.

Despite the bad news, the group's chair Ahmed Ali Al Sayegh remains optimistic. In a statement, he said: "The board believes Aldar will enjoy a strong 2010 despite continued economic uncertainty in the world. Abu Dhabi has demonstrated its resilience and provided regional stability which, in turn, provides a strong platform for Aldar to continue moving forward.

"The solid foundations put in place in recent years have made the business more resilient and well placed to prosper in this rapidly changing environment. We have taken proactive measures to adapt Aldar to the new economic environment."



Ferrari World will open later this year



An artist's impression of what the park will look like

## Coney Island park plans revealed

Central Amusement International (CAI) has unveiled detailed plans for a new amusement park on Coney Island, New York, US.

CAI will lease a 6.2-acre piece of land from the city of New York for a 10-year period and invest nearly US\$30m (€22m, £19m) to build and operate the park.

Scheduled to open by 31 May 2010, the park will be built in two stages. During the first phase this summer, CAI will open Luna Park at Coney Island, which will feature 19 rides, including one – Air Race – that will make its worldwide debut at Coney Island.

The second phase, opening by summer 2011, will be named Scream Zone at Coney Island and will provide additional attractions, including two custom roller coasters.

CAI is working with Italian ride manufacturer Zamperla on the project.

In total, Zamperla will supply 23 new rides, designed to celebrate Coney Island's unique history and character while adding modern amusements.

The plan is expected to generate more than US\$14bn (€10.2bn, £8.9bn) in economic activity over 30 years.

## Universal shuts Galactica ride

The newly-opened Universal Studios Singapore theme park has had to close one of its major rollercoasters due to a technical malfunction.

The Battlestar Galactica ride – a duelling coaster, whereby two trains begin at the same time and loop around each other – is one of the park's biggest attractions, but a problem was discovered during the routine pre-opening test on Thursday.

An official statement said: "Due to a technical problem, the Battlestar Galactica attraction will be closed until further notice. Experts from the ride's design, engineering and manufacturing company are assisting to resolve the situation. The park only officially opened on 18 March.

## £372m robot park planned for Korea

Work is to begin this year on a KRW784.5bn (US\$560m, £372m) robot-themed attraction in Incheon, South Korea.

The government recently announced that work could begin on Robot Land this year, to be completed in 2013.

However, part of the park would be open by 2012. The park will boast entertainment facilities, exhibition halls, a waterpark, research and development centres, education buildings and industrial support facilities.

According to the government, KRW680.5bn (€456m, US\$608m, £400m) will come from private investors, KRW52bn (€35m, £30m, US\$46m) from the central government, and a further KRW52bn from local government. There are also plans for a second park in Masan.



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# SCIENCE CENTRE NEWS



The new attraction will include an observatory

## Jodrell Bank unveils visitor centre plans

Plans have been submitted to Cheshire East Council (CEC) for the creation of a new discovery centre at the University of Manchester's (UM) Jodrell Bank Observatory in Manchester, UK.

The 'live science' visitor attraction aims to attract thousands of extra visitors to the observatory and showcase research 'as it happens' – as well as inspire a future generation of young scientists.

Jodrell Bank's 1,000sq m (10,764sq ft) discovery centre will include a Planet Pavilion entrance building, with orientation

centre and a café offering views of the Lovell telescope.

A Space Pavilion accommodating a multi-purpose events, exhibition and education space and the landscaping of the site's arboretum to create a Galaxy Maze and a Space Garden are also proposed.

Funding is now being sought to carry out work at the observatory – part of UM's school of physics and astronomy.

Designs for the scheme have been drawn up by architects Feilden Clegg Bradley Studios.



Robert Firmhofer

## Warsaw calling

In the Autumn of 2010, the Copernicus Science Centre in Warsaw will open its doors. A total of 20,000sq m (215,000sq ft) of floor space will house six interdisciplinary galleries with 450 interactive exhibits, accompanied by a multimedia Planetarium with a 16m (52ft) dome and a Discovery Park around the building and on the roof.

Since its early days, the centre has been a part of the ECSITE society, drawing on its experience and participating in the debate on the future of science centres. And the quest for new paths in science communication was essential in the process of the creation of the Copernicus Science Centre.

One of the crucial factors determining the centre exhibitions and activities is the way of presenting science: as a part of human culture, together with the humanities, social sciences and arts. As an example - Roots of Civilisation gallery will show how human civilization has developed over the ages, through science, technology, maths, writing and arts. Art exhibits are very important in this gallery, as they show more than just scientific discoveries, like *Hommage a Leonardo* by Sharmanka – an incredible theatre of kinetic sculpture, telling the story of the human spirit as it struggles against the relentless circles of life and death.

There'll be a great opportunity to visit – in 2011 we will be hosting the annual ECSITE conference. We look forward to seeing you there!

Robert Firmhofer is director of the Copernicus Science Centre in Warsaw

## Contractor appointed for Miami project

Contractors have been appointed for the US\$275m (£172m, €188m) Miami Science Museum in Florida, US.

Boston-based Suffolk Construction and San Francisco-based Webcor Builders have been awarded the contracts to develop the



Plans include a large aquarium

museum, which was designed by British firm Grimshaw Architects. The 250,000sq ft (23,000sq m) museum will boast a 35,000sq ft (3,200sq m) aquarium, a planetarium and 55,000sq ft (5,100sq m) of indoor and outdoor exhibition space.

The museum – designed by renowned architects Herzog & de Meuron – will be the centrepiece of the Miami Museum Park, which, as previously reported in *Attractions Management*, will also feature the US\$275m (£172m, €188m) Miami Science Museum.

The museum will boast 200,000sq ft (18,600sq m) of programmable space, more than three times of the museum's current home. The three-storey building will sit upon an elevated platform and will house an educational complex with a library, an auditorium, classrooms, workshop space, a café and a store, as well as the galleries. Work is expected to be completed by 2012.

# ZOO & AQUARIUM NEWS



The exhibit will house the zoo's 12-strong pack of sea lions

## Sea lion exhibit for Fresno Chaffee Zoo

Fresno Chaffee Zoo in California is to build a new US\$10.5m (£6.8m, €7.7m) sea lion exhibit. The new 12ft-deep (3.6m) pool will be twice as deep as the existing one and contain eight times as much water.

Called Coastal California Sea Lion Enclosure, the exhibit will boast 12 sea lions and harbour seals and visitors will be able to see the animals through an underwater viewing area as well as on land.

The attraction will be the zoo's first completely new exhibit and will be paid for by Measure Z. Measure Z, according to the Fresno County Zoo Authority – the public agency responsible for the administration of it – is the unique transactions and use

tax (sales tax) which is collected throughout Fresno County for the support of the Chaffee Zoo. The sales tax, at the rate of 0.1 per cent, is collected by retailers and sent to the State Board of Equalisation, which then deducts its administrative fee and forwards the remaining revenue (about US\$10m, £6.5m, €7.2m) per year) to the Zoo Authority. The exhibit is expected to open in 2011.

According to Scot Barton, director of Fresno Chaffee Zoo, The sea lion enclosure will be the first of five new large attractions planned for the site.

The four others are currently awaiting a completed environment impact report.



## Noah's Ark claims 'grossly unfair'

North Somerset Council (NSC) has ruled that allegations of animal cruelty made against Noah's Ark Zoo Farm near Bristol, UK are "grossly unfair".

Inspectors from the council, which licenses the attraction, and two zoo inspectors carried out interviews with the proprietor and staff members as part of the probe into the claims. Zoo records were also examined and animal enclosures inspected after the Captive Animal Protection Society (CAPS) accused Noah's Ark Zoo Farm of "serious animal welfare issues".

NSC's executive member, Peter Bryant, said that animals at the attraction are "generally well cared for by experienced and dedicated people."

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# BALPPA NEWS



UK parks have opened a number of high-profile rides in the last year

## UK parks 'benefiting from recession'

A report by Mintel Oxygen – Theme Parks – UK - February 2010 - reveals that the theme park industry not only enjoyed two years of solid growth in 2008 and 2009, but is actually benefiting from the recession.

A key factor is said to have been the more strained financial circumstances of many consumers. A lot of visitors who might otherwise have travelled abroad decided to have a 'staycation' at home and take more day trips and short breaks.

The weakness of the pound has also helped, encouraging inbound tourism which has benefited the parks around London where most of such tourists tend to spend their time.

According to the report, park operators have also made sustained and consistent investment in new rides, attractions and areas, often breaking the usual two to three year investment cycle by adding something new every year.

## Work starts on Drayton's hotel

Construction work has begun on the new hotel at the Drayton Manor Theme Park in Staffordshire.

The new 150-room hotel is designed primarily to meet demand from visitors to the theme park, having seen an upsurge in visitor numbers following the arrival of Thomas Land in 2008.

Scheduled to open in the summer of 2011, the hotel will feature themed bedrooms, including ones from the *Thomas & Friends* series.

Also on offer will be extensive conferencing and hospitality facilities, complementing those already at the theme park, plus two restaurants, a coffee shop and a crêche.

Colin Bryan, MD of Drayton Manor, said: "I'm pleased that after many hurdles and a lengthy planning process, building work has finally begun."



Merlin will operate the iconic attraction

## Blackpool calls in Merlin to sort out tower

Blackpool council in Lancashire, UK has signed up Merlin Entertainments to manage the redevelopment and operations of the Blackpool Tower complex and Louis Tussauds Waxworks when it formally takes over the businesses later this year.

A £10m (€11.2m, US\$15m) council-funded investment programme is scheduled to start this autumn, which will see a new Dungeon attraction added to the Tower complex, plus the development of the current observation platform into an 'Eye' branded experience.



Colin Dawson

## A light at the end of the tunnel

Somewhat of a dramatic headline but after more than six years in pursuit of a switch to Daylight Saving we have made enormous progress in the last few weeks. This week alone I have attended four tourism events in which there has been a political element and in every case Daylight Saving has been the major talking point.

Just a few weeks ago, Prime Minister Gordon Brown, in response to a question from a BALPPA member at a tourism event in Exeter stated his interest in the idea of a three year experiment and that he found the argument both interesting and worthy of consideration. Since then, with a General Election set for 6 May, all the main parties have stated their support for the move.

But, as a realist, I know we still have a way to go if Daylight Saving is to become a reality. There will be a lot of various internal pressures before the Party Manifestos see the light of day (forgive the pun) and we need all tourism businesses and organisations to ensure their positive views are heard in the corridors of Westminster.

This is my last contribution to *Attractions Management* as I shall retire in July. To those of you who I may not see before then, it's been great to have been a part of such an exciting and rewarding industry. I shall miss it, but "all good things" and all that. Best wishes to you all.

Colin Dawson chief executive, BALPPA

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# WATERPARK NEWS



The park is set to become one of the largest indoor parks in the world

## Indoor waterpark for Ukraine

The city of Donetsk in the Ukraine is to be home to what is claimed to be the largest aluminium-domed waterpark in the world.

Scheduled to open in August 2011, the dome over the Royal Marine Aquapark – a joint venture between the city of Donetsk and a consortium of private sector investors – is being built by Oakville, Ontario, Canada-based OpenAire, a specialist in retractable roofing systems. At 26m (86ft) high and 85m (278ft) in diameter, the dome

replaces the park's designers original plan to have a steel/polycarbonate structure.

OpenAire president, Mark Albertine, said: "The developers loved the idea of a retractable roof. To them, it opened the park up to a whole new world of possibility. "People don't want to be inside on a beautiful day; opening the roof instantly transforms it into an outdoor facility."

The Royal Marine is OpenAire's second Ukrainian project.

## Expansion for Darien Lake Resort

Darien Lake Resort in Western New York, US, has announced plans for a four-million dollar expansion.

For the 2010 season, the resort will transform into two parks – the Darien Lake Theme Park and SplashTown at Darien Lake.

The former will open on 8 May, while the latter, which will boast several new attractions over five acres of new park space, is scheduled to open on Memorial Day Weekend (31 May).

Specific additions to SplashTown include the Swirl City Slide Complex, with four rides built by ProSlide (Mister Twister, Cannon Ball Run and the Turbo Twins); a 1,024ft (312m) lazy river (built by the Aquatic Development Group) and the Lazy Days Lagoon, a 44,500-gallon wave pool (also built by Aquatic Development).



The waterpark will be Legoland's first

## Legoland California to add waterpark

The world's first Legoland-themed waterpark is scheduled to open in June this year at Legoland California, with construction work currently taking place on the site's six-person family raft slide.

The 11ft-wide (3m), 300ft-long (91m) slide is one of seven at the 5.5 acre waterpark, which will also include enclosed one-person tube slides and slides specially designed for toddlers. Elsewhere will be a DUPLO zoo-themed water play area for toddlers and an interactive water play zone.



Aleatha Ezra

## Going green is now a priority

**G**reen building and operations practices have become a top priority to more than just waterpark industry professionals – it's become part of the regular decision-making process for the consumer too.

Green operators are able to reducing utility costs and therefore minimise unnecessary overheads. Meanwhile, consumers worldwide are becoming more aware of product energy labelling on items such as light bulbs, air conditioners, domestic appliances and even cars. They are becoming better at interpreting the labelling and using this information to make spending decisions.

In Europe, energy labelling has now been extended to buildings. It's now a requirement to display the building energy performance, even on aquatic buildings. After a waterpark is built, there is limited scope for minimising consumption. The most influential decisions are made during the design process and choices of solutions and equipment. While energy labelling might not reach down to water attractions, perhaps progressive operators may already be thinking about electricity consumption per hour, as well as guest throughput per hour, when making investment decisions.

We could now be approaching the moment where the only aspect of your waterpark that should not be green is the colour of the water!

Aleatha Ezra is the membership manager of the World Waterpark Association



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See page 24  
for interviews  
with Merlin's top  
team

# Nick Varney

With Legoland Florida underway, numerous midway attractions being developed globally and speculation about its future ownership, Merlin Entertainments is rarely out of the news. Chief executive Nick Varney reveals all to Kathleen Whyman



**W**hen I last interviewed Nick Varney in January 2007, his first words were, "I have something rather exciting to tell you". The exciting news was Merlin Entertainments' acquisition of The Tussauds Group, making the company the second largest visitor attraction company in the world after Disney. So when I meet the chief executive again in January 2010 and he tells me, "I have something very exciting to tell you, but I can't just yet", frustrated doesn't even come close to describing how I felt.

Luckily for me, and the rest of the attractions industry, I only had to wait another week until Varney was able to reveal that Merlin Entertainments had bought the Cypress Gardens theme park and was transforming it into Legoland Florida.

"Florida is the biggest family destination on the planet so it's completely logical that we should be there," says Varney. "We'd been looking at central Florida, as that's the real hotspot, but in 2008 were made aware that Cypress Gardens, which is only 40 minutes drive from Disney, might be available. We went down there and

saw this unbelievably, breathtakingly beautiful location with historical botanical gardens." Merlin's portfolio includes Alton Towers, the 1,000-year-old Warwick Castle, Gardaland and Legoland Windsor, all of which sit within beautiful grounds, so Cypress Gardens had "that something special" that really appeals to Merlin.

In addition to this, Cypress Gardens offers a waterpark and theme park, which have benefited from more than US\$140m (£94m, €103m) investment in the last five years, including the installation of several rides. So why did the park close down in the first place and isn't Varney worried about suffering the same fate?

## OPPORTUNITY KNOCKS

"The park was getting around a million visitors a year but needed a few hundred thousand more to be viable," explains Varney. "We've factored in that if you're 40 minutes away from Orlando and have to drive down, then you're not going to get as many visitors as if you were in the centre of town. But, for us, to buy everything it offered for under \$25m (£16.8m, €18.4m)

and convert it into a Legoland park, which we know from the success of our site in California is hugely popular, was a very good opportunity. Normally if you're looking to establish a theme park, you've got to find a site, pay for that site and get all the planning, zoning and other regulatory approval, which, even with a following wind, might take three years. Then you've got to build it, which takes another three years. We'll have ours open by the end of 2011. That's a fairly compelling argument."

Legoland California's success has led to the park being awarded the title of Best Park for Children in the US by American trade paper *Amusement Today* six years in a row. Varney's extremely confident that Florida will do even better (Florida parks traditionally have higher visitor numbers than their Californian counterparts) despite being a 40-minute drive away from the heart of the activity. "We did a great deal of very detailed market research last summer in Florida and Orlando and 80 per cent of people in our target market said they'd come to Legoland as part of their holiday in Florida," says Varney.

"Anyone who thinks that a company like Merlin, with a successful history of driving very strong returns on the capital it spends and of driving into new markets, would have done this with anything other than its eyes wide open, doesn't know us very well," he continues. "I don't just think it's exciting and a great opportunity, I think it's a bloody good deal for Merlin."

Destination resort positioning is part of Merlin's long-term strategy. While getting the theme park up and running

After building its portfolio in Europe, including Italy's Gardaland (pictured left) Merlin hopes to continue to build its profile in North America



## MERLIN ENTERTAINMENTS' BRANDS

- ❖ Legoland
- ❖ Legoland Discovery Centre
- ❖ Madame Tussauds
- ❖ The London Eye
- ❖ Gardaland
- ❖ Alton Towers
- ❖ Thorpe Park
- ❖ Chessington World of Adventures
- ❖ Heide Park
- ❖ Sea Life
- ❖ Sea Life Sanctuaries
- ❖ Earth Explorer
- ❖ Warwick Castle
- ❖ The Dungeons



Merlin Entertainments is one of the biggest visitor attractions companies in the world, second only to Disney, and boasts a number of household name attractions, including (clockwise from above) Sea Life, Legoland, The London Eye and Thorpe Park



is the priority, a hotel and other Merlin midway attractions will be added eventually. Elsewhere a hotel is being added to Legoland Windsor and Legoland Malaysia is currently being built. Work is also underway on two Madame Tussauds – Prater Park in Vienna, Austria for 2011 and Bangkok, Thailand for 2010 – Sea Life Phoenix, US is opening in the spring and Legoland Discovery Centres in Manchester, UK, Dallas, Texas and Meadowlands, New Jersey (which will also boast the Pepsi Globe) are all due to open in 2010 or 2011.

All this is in keeping with Merlin's plan to open between three and five midway attractions each year while expanding its portfolio in North America and Asia. Despite juggling all these different projects, Varney's confident that the Florida park will open in 2011. "We have a great his-

tory – we bring all our projects in on time and on budget," he says. "And what's great, for both us and our industry generally, is that we're going to create 1,000 new jobs." Training and looking after his staff is extremely important to Varney, which was proven when the company won an IAAPA award for its graduate recruitment scheme. "I think it's great for our industry that we're able to compete with the big companies like Unilever for top graduates across three continents," he says.

**WINNING STRATEGY**

Varney believes Merlin's success results from faithfully following the strategy devised when the company was formed in 1999. The aim was to make Merlin a global, location-based family entertainment company, based on high growth, strong

**ABOUT NICK VARNEY**

- Hobbies? Watching rugby
- Favourite food? Saturday night curry
- Favourite film? *Gladiator*
- What drives you? S type Jaguar
- How would you describe yourself? Tall, sophisticated and honest
- How would others describe you? Short, direct and self deluded
- Best piece of advice you've had? "Get off the track, there's a train coming!"

brands and a balanced portfolio. The company hasn't wavered from this strategy despite the challenges thrown at it – swine flu, global recession, terrorism, record wet summers, record hot summers – and has delivered double digit percentage growth in EBITDA for nine consecutive years.

"To my mind, that strategy is the right one," smiles Varney. "It reflects a balance of geographical diversification, product diversification in terms of a balance between indoor and outdoor, and demographic diversification in terms of where our brands are appealing. Therefore, naturally, we're continuing with that strategy by building a balanced portfolio in North America in the image of what we have in Europe – we currently have eight businesses in the US; by the end of 2011 we'll have 13 – and ultimately we'll follow the same model in the Far East."

Running alongside Merlin's strategy is its instilled culture – to retain the ethos of the small company it once was. "The quality of our portfolio, and the quality of the team that has come together around it, is driven out of the culture of Merlin as an entrepreneurial company that started small and has grown, but has kept its heart by us all staying close to the business," Varney says. "We treat every pound, dollar and euro like it's our own and our returns speak for themselves."

This was proven with Merlin's financial results for 2009, which revealed group revenue to be up 16.1 per cent, like-for-like revenue up 12.9 percent and ongoing EBITDA up 16.6 per cent.

Madame Tussauds is a midway attraction – an experience which lasts for a few hours rather than a whole day





In keeping with the company's culture, Varney prides himself on being as involved with the attractions as he can, although, with 50 sites and more opening all the time, visiting them all is a mammoth task. When he first started as managing director at Vardon Attractions in 1995, before the company became Merlin, Varney would visit all the sites every few months. These days he struggles to visit each site once a year. "That's inevitable, as my job takes on a bigger corporate dimension," he admits reluctantly. "Looking at acquisitions, how we're going to develop the business, the corporate side, financing issues and the governance of the company, those things take up more time. But I think most people in the company are surprised they see me out as much as they do. Last year, for example, I went to every Madame Tussauds at least once, on all three continents." For his four children - aged 18, 16, 10 and nine - having a dad who can take them to attractions all the time must be a real boon. "I do take my family sometimes, but I try not to mix business with family too much for fear of divorce!" he adds.

## THE BIG CHEESE

I wonder if Merlin's rapidly expanding portfolio and arrival at Florida has made Disney nervous. "I hope not," says Varney. "In the last 30 years, every new product

**Varney says he gets the biggest buzz from seeing visitors enjoy themselves at Merlin sites**

addition has grown the Florida market. Hopefully we'll help continue that trend. We offer an interactive, highly immersive Lego world for families with children from two to 12, which is entirely complementary to other brands in the market. We'll be reaching out to people and asking how we can work with them." So it isn't Varney's desire to beat Disney to that coveted spot of the number one visitor attraction company? "In terms of how we implement our strategy, it isn't the thing that drives us," he says. "We're following a very different model to Disney - we have our midway roll outs and our theme parks will never be more than two- to three-day destinations; they're not mega resorts. We make our decisions based on our strategy rather than a need to over take Disney. And Disney is a company we all admire [it was a visit to Disney aged 12 that inspired Varney to work in the industry]. Having said that," he adds with a smile, "although at the moment we're a long, long way behind them, we see no reason why it couldn't be the case that one day Merlin becomes number one.

We're passionate about the business and one of the things that motivates us is that we'd like to be the best in our market."

## FUTURE OWNERSHIP

A topic that's been creating unwanted press for Varney at the moment is speculation over Merlin's relationship with Blackstone, the private equity firm which acquired the company in 2005 and enabled Merlin to buy Legoland. A press statement was released in February advising that it's continuing to consider and debate the options for its future ownership structure and while all options, including an IPO, remain under consideration, the group doesn't expect to reach any conclusion in the near future.

Despite all the global activity, the numerous deals taking place and the constant striving to get bigger and better, Varney's heart remains true to the purpose of attractions - the fun of them. "I'm going to make sure, as much as I can, that all of those things don't take me away from what I love best," he says. "Seeing visitors enjoying themselves gives me the biggest buzz and I'm never, ever happier than when I'm sitting with the local team discussing development of a site. I still pinch myself to be lucky enough to be working in this industry and to have been able to do what we've done so far. If it all ended tomorrow I wouldn't regret a single minute of it." ●

# MERLIN ENTERTAINMENTS

See interview with Merlin's chief executive, Nick Varney, on page 20

The world's second largest visitor attraction operator doesn't just run itself, as the company's top team attests. Kathleen Whyman finds out how they do it

## ANDREW CARR, CHIEF FINANCIAL OFFICER

### How was 2009 financially?

We're very happy with the progress we made, particularly in the context of a year of tough macro conditions and concerns about consumer confidence.

We released our 2009 results recently and these show strong and resilient growth – a 16 per cent rise in global sales to £769m (US\$1.2bn, €883m) and a 16.6 per cent jump in profits to £239m (\$367.5m, €274m). It's also our ninth straight year of double digit percentage growth in historical EBITDA in our core businesses, which is testament to the fact that we run our attractions tightly and efficiently. Visitor numbers across the company's 61 attractions worldwide were also up 10 per cent to 38.5 million.

### What about Merlin's ownership?

We've always said that we'd like to see this company float if we feel market conditions are right. However, we also have a responsibility to pursue different opportunities to provide a viable exit on sale of business to Blackstone, therefore the IPO route is only one of several that could be executed



to realise that ambition. However, while I expect 2010 will be an important year for Merlin, we have an excellent relationship with our primary shareholder, Blackstone, which has always gone on record to say it's in no desperate rush, it doesn't have to have an exit in 2010.

### How do you prioritise funding?

Merlin's growth strategy is broken into three key pieces. Our core strategy is

growing the existing business. For that we apply a level of capital expenditure roughly equal to our depreciation charge onto the existing estate. That's the money we continuously invest into the theme parks, Legolands and midways to retain the level of quality and customer service and bring in new features, which ensures growth for the existing estate. That's priority one.

Priority two is the midway attraction roll-out programme. We have a tried and tested programme which aims to roll out four or five of these a year. As an overlay to that, we're working on resort positioning for the bigger theme parks with the introduction of accommodation and second gates.

Thirdly, we're always in the market for very targeted acquisitions which fill gaps or extend the estate. With acquisitions, such as Cypress Gardens (soon to become Legoland Florida), we need to feel that we can afford them within the funding capacity of the business. We have a rigorous process of investment appraisals and expect new investments to achieve a 20 per cent return on capital, which is very ambitious.

This is a key factor in our choice of new opportunities. We look for those that will deliver the highest returns on capital, taking into account the quantum of money we're putting into a particular project.

### How much bigger can Merlin get?

There's no reason why there should be a ceiling to that. The issue is, we want to continue growing the business, but we don't want to grow it simply by acquiring things to bulk it out. Our growth is planned and balanced. There are a number of leisure groups that we believe have bought assets just to grow their global scale without there being any real strategy behind it. We're not going to compromise our strategy of building a broad-based, high quality entertainment group by buying, or opening, anything just because it becomes available.



Merlin's core strategy is growing its existing business, including its Legoland parks



Merlin Entertainments owns some of the UK's primary assets in the attractions industry, including Madame Tussauds (above) and Alton Towers (right)



**WE'RE ROLLING OUT FOUR OR FIVE**

**MIDWAY ATTRACTIONS A YEAR... WE'RE CONTINUALLY LOOKING FOR NEW SITES**

**GLENN EARLAM, MANAGING DIRECTOR, MIDWAY ATTRACTIONS**

### What's your role?

I oversee the midway attractions, which are our short stay attractions – best described as everything other than our theme parks. The main brands are the Merlin Entertainments London Eye, Madame Tussauds, the Dungeons, Sea Life and the Legoland Discovery Centres – there are 46 in total. While most, other than the London Eye and Madame Tussauds London, are medium-sized or relatively small businesses in comparison to the theme parks, managing the number of sites and brands is the challenge.

We roll out four or five new Midways a year, so I spend a lot of time working with the Property and Development Group on new sites and openings.

The management team all try to be in our head office in Poole, Dorset, UK on a Monday, so we can meet up. Then, typically, I'll be out and about at attractions for the rest of the week, mostly overseas. That's the Merlin philosophy – the senior team are very hands on. We manage the business from the businesses, rather than from head office. I also have the support of three divisional directors in the Group, each with varied geographic and brand responsibility, and a development director responsible for new openings. Practically, I can't be close to all the sites all of the time.



### Which are the most popular midway attractions?

The London Eye and Madame Tussauds London. Madame Tussauds has 200 years of history, it's been a sort of mandatory part of the tourist trip to London for a very long time. It's also one of our most successful brands with nine attractions around the world and three more in development in Bangkok, Vienna and Blackpool.

The London Eye is clearly different, a much more recent invention but already an iconic part of the London skyline. The fantastic new 4D preview show introduced last summer has added to its appeal even further, encouraging many repeat visits.

### How do you choose locations?

This is one of Merlin's greatest strengths. We're after populous places where people both live and visit and have sufficient levels of income to enjoy our products. We have to find places that fit all our criteria and are available for us to move into in our time frame and at the right price. At any one time we may be assessing as many as 100 sites globally for potential attractions.

An example is Madame Tussauds in Prater Park, Vienna, which opens in 2011. Vienna fits our criteria perfectly and has a richness of history and culture.

We chose Phoenix, US, to put a Sea Life in (opening end of May) because, in addition to our usual criteria, there are no other large standalone aquaria in the area, so it has the benefit of exclusivity.

### Where will your next site be?

We've just opened our 22nd attraction and first Legoland Discovery Centre in the UK, in Manchester. We also announced earlier this month another UK project in Blackpool where we already have a Sea Life. We'll be working with the council to redevelop and manage the Blackpool Tower, including introducing a new Dungeon and 'Eye' branded observation/4D attraction. We'll also be opening a new concept Madame Tussauds in the old Louis Tussauds.

## JOHN JAKOBSEN MANAGING DIRECTOR, LEGOLAND PARKS

**What's your role?**

I oversee the operation of our four Legoland parks. This includes developing them into short stay destinations with accommodation and potentially the addition of other midway 'second gates'. I also make sure the guests are happy and, most importantly, that everything is safe.

The other side to my job is developing new Legoland parks. I spend a tremendous amount of time searching for suitable locations and for potential local partners and investors – It takes around US\$200m (£130m, €149m) to establish a new Legoland Park.

**What makes Legoland so special?**

It's in the name. Lego appeals to not only theme park goers, but also to fans of the toy. It's the ultimate Lego experience – you can't get that anywhere else. Plus we're the only theme park completely focused on providing an interactive experience for families with pre-teen children (two to 12). We're not trying to offer something for everyone, that's what makes us so successful.



Legoland specifically caters for families with children up to 12-years-old

**How were locations chosen?**

The original park in Denmark opened in 1968. People were coming to the factory to see how Lego was produced so a showcase was built outside to stop fans wandering through the manufacturing plant. That evolved into a theme park. It's not a logical location, but it's fared extremely well and now has a hotel too.

The locations for the other three parks [Windsor, UK, California, US and Günzburg, Germany] were chosen because they have both a strong resident and tourist base and a community which supported the concept. Our parks planned for Florida, US; Malaysia and Dubai also fit this criteria.

**When will the next sites open?**

Cypress Gardens in Florida will open late 2011. It's a big and exciting project and

we're giving ourselves a very tight time schedule to have it completed, but I'm absolutely comfortable we'll get there.

Malaysia's on track to open in 2012. For now, Dubai has been put on hold – it's no secret that the global economic crisis has hit Dubai more than anywhere, but we still have strong intentions of making that park a practical reality.

**Who owns the parks?**

All four existing Legoland parks and Florida are fully owned and operated by Merlin Entertainments. Malaysia and Dubai are being developed with local investors. Strategically they were markets that we felt had huge potential, but needed strong local involvement to succeed. Despite current problems, the local government in Dubai has incredible vision and Malaysia has huge growth potential. Sixty per cent of the world's population live in Asia and they have no Legoland parks yet. I have no doubt Malaysia won't be the last Legoland park we open in that region.

**How many are you planning?**

We think the world can certainly host several more Legoland parks. I'd hate to put out an explicit number, but the opportunities are huge for us. We have three parks in Europe today, and could have more, and that's just a small corner of the world compared with North America, South America and Asia. There's plenty of rollout opportunities to keep me busy until I retire, which is many, many years away.



Merlin Entertainments is looking to roll out the Legoland brand in Asia



### What is your role?

My role was created in 2005 to monitor the guest experience and to see how we can continually improve quality across every aspect of the guest experience. Merlin aspires to be number one in this industry – not just in size but, most importantly, in the quality of our product and service. We must deliver on the promise we make to our visitors and strive never to disappoint. We have developed two group-wide processes to monitor the guest experience: one is continual guest feedback, the other is an external mystery visit programme.

### How do you get guest feedback?

We've been using self-completion touch-screen surveys since 2007. I was very skeptical at first – I'm not a technophobe but I wondered if people would bother to complete them. I challenged the guys who'd been pestering me for a year to first put one into the London Dungeon. I felt if it worked there, it'd work anywhere.

It was very successful and the system's now operating in all 61 attractions worldwide. We've also increased the frequency of the surveys and adapted the system to enable us to gather information from more of our overseas guests. In London, the introduction of the touch screens means we've quadrupled the number of responses we get compared with the previous paper process. My aim is to get one per cent of our guests filling in surveys.

### What do you ask?

We have nine key performance questions (in a number of languages) which range from satisfaction, recommendation and value for money. There are also questions about staff, customer service, queuing and food. They're the things we're most



All Merlin's sites, including Warwick Castle (pictured), receive 12 mystery visits each year

**THE MOMENT YOU MAKE THE EFFORT TO CONTACT PEOPLE AND THEY REALISE YOU CARE ABOUT THEIR EXPERIENCE, IT TAKES THE STING OUT OF A COMPLAINT AND YOU CAN PUT IT RIGHT**

interested in. It only takes a few minutes to complete but the information is invaluable.

### How do you persuade people?

I don't offer incentives. The moment you start offering tickets or gifts people are more likely to give better scores. We position the machines near the end of the attraction so we can capture them when they've experienced everything. The screens need to be located where a lot of people pass by and a member of staff is available to flag up what they are.

### How do you respond to feedback?

Every week we summarise the comments that come through the touchscreens. If it's negative or a visitor's question, the manager of the site or I will ring the visitor direct to discuss their comments.

If there's an obvious complaint, my first words will be: "We're sorry we haven't delivered the experience you hoped for." In the situations where we may have got it wrong, we'll offer tickets for another visit.

The moment you make the effort to contact people and they realise you care about their experience, it takes the sting out of it and you can put it right. Last year, for example, we had some power cuts at Chessington. I met a lady and her son who

had not only suffered from the first power cut, but there was another on the day they came back, so they certainly weren't happy. We did everything we could for them and they're now loyal ambassadors.

Many companies put customer service desks in the way of these things but they just act as gatekeepers preventing the board and senior managers knowing what's going on. It's not like that at Merlin: we want to know. I'm not fearful of complaints – every company gets them; it's how they're dealt with that matters.

### Any mystery shoppers?

We used to do this internally but we want the results to be completely objective, so we now use an external provider. They visit all our sites up to 12 times a year. When we have a new opening we do more visits in the early days and we automatically send a mystery shopper to a site where we're getting complaints. I also send them into competitors, they're all important and they might, sometimes, be better than us!

In short, the touchscreens tell us about the visitor experience. The mystery shop is about the process of how we deliver that experience. Those two combined give a speedy, and fairly good picture of how an individual business is being run.

## NICK MACKENZIE, MANAGING DIRECTOR, PROPERTY AND DEVELOPMENT GROUP (PDG)

### What's your role?

PDG's focus is the development of both our existing sites and new attractions and hotels for the group. The property side involves managing relationships with landlords, negotiating leases on new midway attractions and coordinating planning permission for new developments, particularly theme park rides and hotels.

The aim for our development side is to get maximum efficiency for all the capital expenditure the group has on new attractions. Probably the biggest area of PDG is what we call site search, where we look for new midway attraction locations.

We have a team which goes out predominantly to America, Asia and Europe, analyses those markets to see whether they'd suit our midway attractions and then locates and negotiates deals with land owners and landlords for those new sites. I then have quite a big team which project manages the development and our capital expenditures, so we're very much focused on getting real value for money. Our view is that we're the best in the world at getting



value for our capital expenditure and the quality of our offer.

### What work do you do on the product side?

We have a team which looks after the creative design that sits behind all the new attractions, new rides and developments. All our attractions, particularly midway, are reliant on some sort of special feature.

With Madame Tussauds, it's wax figures, at Legoland Discovery Centre it's the Lego models and at Sea Life it's the marine creatures. We have a team that looks after each of those three elements in terms of making the wax figures, making the Lego models and the care and acquisition of fish and marine creatures.

On top of that, we have a team that looks after our hotel development. A hotel will open at Legoland Windsor in 2011 and another is planned for Legoland California. The final piece in my little jigsaw is the finance team that manages all the capital expenditure that we've put in place during the whole of this development process.

### What are your main priorities?

The US and Asia are the real focus for us in terms of future development. The biggest priority is getting the pipeline of new sites for our midway rollout; we look to get sites and deals agreed as early as possible - maybe 18 months out - to ensure that those sites are ready to go and we can develop them effectively and efficiently.

## MARK FISHER, MANAGING DIRECTOR, RESORT THEME PARKS

### What's your role?

We look after the resort theme parks (other than Legoland). There are six in the group - Alton Towers, Thorpe Park, Chessington World of Adventures, Heide Park, Gardaland and Warwick Castle. I look at the quality of the day to day operation - how we deliver on our promises to visitors; how we're trading in a particular period; capital investment; staffing issues: the whole management of the business. I'm also responsible for their longer term development strategy. Our objective is to turn all our resort theme parks into two- to three-day short break destinations with the addition of accommodation and second gate midway attractions.

I work very closely with PDG. We'll be telling them up to four years in advance what we want to do and the money we have to invest, so we'll be asking what they can do to help us fulfil those needs.

### What's different about Merlin?

I believe Merlin parks offer a combination of some of the best leisure experiences that people will have, at a price they believe is value for money. A theme park's not the cheapest day out, and many times we've all been criticised as an industry for



our pricing, but pound for pound, if you look at the entertainment you get, it's probably better than the alternatives - sporting events, pop concerts, the theatre.

### What are hotel occupancy rates?

I can't disclose figures, but they're pretty high - the hotels are maxed out in peak season. Leisure stays have been very good during the recession, thanks to the staycation affect, particularly in Germany. Most people stay two to three nights. The corporate side has been tough, but we're still out-performing the rest of the market.

### What are the trends in resort theme parks?

It's increasing the scope of the offer - people are looking to prolong their experience. In the last few years we've put a Sea Life Centre second gate in both Legoland California and Gardaland. People are buying tickets for both and spending two or three days there. At Alton Towers we have a waterpark and a spa in the hotel, which encourages a longer stay. And we've just put a Dungeon into Warwick Castle, which serves to increase the dwell time again.

It's a circle - the more second gates you have, the longer people will stay, and the more people you get to come and stay for a number of days, the more opportunities you've got to put those second gates in.

### Any more hotels planned?

We've got planning permission at Windsor, Thorpe Park and Legoland California for hotels and we're in the process of looking at planning permission for another couple of sites. Alternatively, we might do more holiday villages like the ones in Heide Park and Legoland Deutschland that people stay and camp in. They're low investment compared with a hotel and, particularly in Germany, they've done very well. ●

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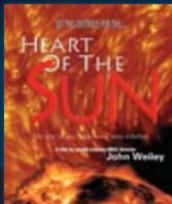
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# THE NEXT DIMENSIONS

3D and 4D are on the horizon for planetariums and domed theatres, but it could be some time before the technology goes mainstream. Andrea Jezovit investigates

Thanks to the Oscar-winning film *Avatar*, 3D may have taken over cinemas, but the 3D planetarium is still in its infancy. There are only a handful of digital 3D planetariums and domed theatres in the world today, showing 3D content in a full-dome environment rather than simply on a flat screen. Loch Ness Productions, which publishes data on domed theatres worldwide, puts the list at five – The Hamburg Planetarium, the Macao Science Center Planetarium, the Miraikan Planetarium in Tokyo, the Ilmiloa Planetarium in Hawaii and Tholos, a domed theatre in Athens.

Operators looking for full-dome 3D currently have two options in terms of technology, both already in use in traditional cinemas – Active 3D and Infitec.

Active 3D uses glasses developed by XpanD, which creates 3D (stereo) visuals

## 4D PROJECTS ARE BEING DISCUSSED IN EUROPE, THE MIDDLE EAST, INDIA AND ASIA

by turning each eye on and off alternately, to coordinate with pictures on the screen, which also alternate between images for the left and right eye. Infitec uses glasses that divide the light spectrum into upper and lower frequencies to produce 3D. Infitec uses glasses that break apart the light spectrum to produce 3D.

### PAYING THE COST

For domed theatres, both systems have their pros and cons. Active 3D requires only one projector, meaning costs can be kept down. Michael Daut, director of show production and marketing at Evans & Sutherland, which has used the technology in its system for the Hamburg Planetarium, estimates an active 3D system cost of 25 per cent to 50 per cent higher than a regular system. However, costs rise depending on the brightness needed, and the projector technology is still in its infancy.

Infitec, used by Sky-Skan at its Macao and Hawaii planetariums, and by Evans & Sutherland at Tokyo's Miraikan, is more proven, but also more costly. "It looks really good," says Daut. "The challenge is mainly price, because unlike [active 3D], you have to double your projectors for the system, in this case four projectors instead of only two to cover the entire dome – you need one projector for the left eye image with its own filter, and another for the right eye image. So you're looking at double a typical system cost."

Another issue is that both active 3D and Infitec glasses dim the screen for viewers – robbing 60 to 70 per cent of brightness, according to Sky-Skan CEO Steve Savage.

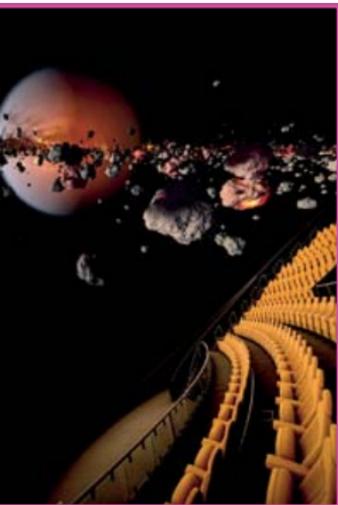
"Getting the picture satisfyingly bright is probably the biggest challenge right now. You have to compensate by buying more expensive projectors and lamps," he says.

Savage believes the price barrier shouldn't be a deterrent, however. "It requires a little larger an investment, but in a new theatre project it's not a significant amount of money compared to the overall project cost of the building and equipping the building, therefore it's not a price barrier to new projects."

### GROWING THE MARKET

Planetarium suppliers are working in different ways to encourage the spread of 3D. Evans & Sutherland is looking at perfecting active 3D technology as a way of encouraging more operators to opt in. "We're hoping that will bring the cost down and make it more reasonable for people to get into stereo, but right now it's so new that we're still experimenting with the 120 hertz projectors that are just coming online," Daut says. These new projectors should offer a completely flicker-free experience compared with the current 60 hertz projectors, and Daut predicts they will be available in the next quarter or so.

Evans & Sutherland has also partnered with Micoy on technology to help filmmakers optimise their 3D content for a full-dome environment. When traditional 3D content is projected on the dome it only works in the very front of the dome within about 100 degree viewing angle. The image flattens to 2D at the sides and inverts behind



Cosmonova, left, is a 3D theatre at The Swedish Museum of Natural History in Stockholm



the audience. The Micoy software has an algorithm that creates stereo separation at a pixel level during mastering to allow viewers to experience stereo wherever they look in the dome for perfect dome 3D.

Test sequences have been produced using Micoy's software, and the tool is currently available, but with 3D fulldome filmmaking still in its infancy, no filmmaker has yet introduced it as part of the workflow for mastering 3D.

Simply encouraging filmmakers to produce 3D fulldome content at all is a challenge when there are currently so few 3D planetariums. Mirage 3D's *Dawn of the Space Age* is the first and only full-length film specifically produced in 3D for domed theatres; all other 3D titles for domes have been converted from large format titles.

As part of its recent Dome Day Asia 2010 event, Sky-Skan recently held Macao Stereo Day at the Macao Science Center Planetarium, an event designed to showcase and promote 3D planetarium content. Films shown at the event included the premiere of *Solar Storms*, a 3D IMAX film that Sky-Skan recently converted for the dome, which allows viewers to see the sun in stereo, and *Crossing Worlds*, an award-winning short by xRez Studios about desert canyons in the American West which was

**The price needn't be a deterrent for new projects as the cost is negligible compared to the whole scheme**

recently rendered for 8K stereoscopic viewing specifically for the venue.

The number of 3D film titles available to planetariums is growing, if slowly. Sky-Skan and Evans & Sutherland are both working with large format film producers to convert their films to digital fulldome, and E&S' patent-pending stretching and warping algorithm preserves stereoscopic 3D; Mirage 3D will soon release a new stereoscopic title, *Natural Selection*; and the 2010 Jena FullDome Festival in Germany will contain a 3D entry – a four-minute full-dome clip by student Alexander Stephan for use with Chromadepth 3D glasses, which produce 3D by causing colours to appear at varying distances.

Global Immersion is working on increasing the number of 3D films available to

**The Hamburg Planetarium in Germany, left, is one of just five fulldome 3D planetariums in the world**

planetariums by promoting a different technique – showing 3D large format films projected on only part of the dome. This way, any 3D large format title can be used without needing to be rendered for a dome. The technique still makes for an immersive experience, according to says Global Immersion CEO Martin Howe. "With full-dome 3D, you have to wear glasses, so you have to move your head a lot to see everything around you," he says. "In a large format 3D system in a dome, the image is still large but you don't see the parts not covered by the dome anyway, because you have the glasses on."



**Evans & Sutherland's *Sea Monsters*. The company hopes perfecting 3D technology will encourage operators**

Global Immersion, which has also contributed a full-dome 3D system to Athens' Tholos theatre, created the first ever combined large format 3D and full-dome theatre at Sweden's Cosmonova in 2008; the company also recently became distributor for Intensity3D, a digital cinema solution from 7thSense using two Christie Digital Cinema projectors to create an extremely bright, geometrically-correct 3D large format image on a domed screen. The technology, which was developed by 7thSense in conjunction with Sirius 3D, made its debut at the Tycho Brahe planetarium in Copenhagen last year. "We recently demonstrated Intensity3D at the Giant Screen Cinema Association meeting in San Diego and are actively pursuing several leads," says 7thSense director Adam Neale.

But 3D planetarium content doesn't have to be limited to film. Many digital full-dome planetariums already use software for the dome that allows viewers to experience flights through models of space in real time — now these models can also appear in stereoscopic 3D at planetariums, with the right equipment. Evans & Sutherland's new Digistar 4 system features spherical 3D, which uses technology similar to Micoy's but for real-time models, allowing them to appear in 3D stereo everywhere on the dome. RSA Cosmos's SkyExplorer software, another platform offering the ability to fly through real-time 3D models, is stereoscopic 3D compatible, as is Sky-Skan's DigitalSky platform. Sky-Skan's Savage is particularly excited about a real-time model of the Gobi Desert's Mongao Caves, showcased at Dome Day in stereoscopic 3D. Built from a computer model of the site, it



allows a guide to take viewers around the caves on a 3D tour. "It shows better detail than if you were in the cave itself, where you're only allowed to have a flashlight," Savage says.

#### GOING 4WARD

With 3D on the horizon, will 4D be next? Some planetariums already have a 4D setup minus 3D stereo. New York's Hayden Planetarium, for example, has bass shaker drivers in its seats, which shake to simulate events like explosions. "There's more interest in the marketplace that we're experiencing in having 4D rather than 3D," says Global Immersion's Howe. And 4D is already beginning to be used in conjunction with stereoscopic 3D at domes.

RSA Cosmos recently sold a €3m (£2.7m, \$4.1m) full-dome 4D planetarium to be installed in Rainbow Magic Land in Italy — which will include a full-dome 3D projection system using Infitec, and 240 4D seats. "Other 4D projects are being discussed in Europe, the Middle East, India and Asia," RSA Cosmos' Christophe Bertier says.

The Macao Science Center Planetarium also features 4D seats with 'butt kickers' along with its 3D stereo dome. As is often the case with 4D seats in planetariums, their sound was distracting at first and had to be reworked, Savage says. "You don't use it for the whole show, just when it makes sense, and it's more effective."

This is easier to accomplish now that 4D seat technology is more sophisticated,

Howe says. "There's a higher level of control that lends itself better to the subtle nature of planetarium films." Imersa's Ed Lantz agrees that 4D in planetariums is best used subtly. "The power of immersive media is quite engaging and the wow-factor is probably best maximised by investing in compelling programming instead of multi-sensory stimuli," he says.

3D sound to complement 3D planetarium content is also on the horizon. "A good 3D sound track makes it that much more fun," Savage says. "Not many people are doing it because it's just as expensive as the projection systems." Isonero Sound has produced an eight-channel stereo system "where the sound would have depth and be placed at the same positions as the images are placed," Savage notes.

With its costs and challenges, it will be a while before 3D overtakes most planetariums. Lantz notes that the effect of a large 2D full-dome theatre, where viewers enjoy an immersive experience without glasses, can actually trump full-dome 3D, where glasses limit the field of view. "Also, some planetariums feel the portrayal of astronomical phenomena in 3D stereo is inaccurate, since visual parallax is only sufficient for stereo vision of objects within 10m or so of the viewer," he says. Hence, content requires large camera distances for astronomical models to be accurate.

But a few more planetariums are set to go 3D in the near future. This summer, Evans & Sutherland will install an Infitec 3D system in the Chinese Maritime Museum's domed theatre, and the Norrköpings Visualization Center, launching in Sweden this year, will contain a 3D dome. Slowly but surely, more and more planetarium-goers will be donning 3D glasses. ●



**Because of their size, 3D domed planetariums need twice as many projectors as a normal 3D screen**



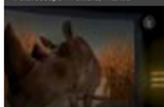
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## COMMISSIONING DESTINATION FILMS

**Buying an off the shelf large format film is the easiest and cheapest option, but what if you want to give your visitors something extra and offer a real insight into your attraction?**

**Kathleen Whyman asks the experts how to get a destination film made**



### MIKE LUTZ

senior vice president of  
business development  
MacGillivray  
Freeman Films

**W**hen done right, a destination film truly resonates with the host attraction. Operators can license a pre-existing film for a fraction of the amount it costs to make their own film, but a destination film will sell considerably more tickets than a generic film on a completely different subject. It becomes a reliable box office draw over many years without changing up the programming very much, if at all.

The better an operator can identify and research their visions for the theatre and the film, the more likely they are to succeed. The best producers are talented at taking good direction and then coming up with the ways to implement that vision.

As well as vision, destination films require research, finances, and top notch production. This is not a forgiving medium – you need to do everything in a top class fashion. Costs can vary widely depending on the level of sophistication required. Working in the giant screen format is certainly more expensive than normal filmmaking, so be prepared for some pretty high production and post-production

figures. It helps to find a sponsor to help offset the costs. And of course there's marketing – don't forget to budget for these costs.

The most successful films work very well at the attraction but also have appeal to outside theatres, perhaps with a different version produced for that purpose.

My advice is to really focus on the vision and conduct thorough research on the most accomplished producers in the giant screen world: call lots of theatres, go to the Giant Screen Cinema Association conferences and see their handiwork first hand. The next conference is in September at the Tennessee Aquarium in Chattanooga.



### BEN SMITH

creative director  
Red Star

**M**ost bespoke films fall into two categories – live action or animation. The one you opt for will depend partly on the tone and subject of the film and partly on the cost. Some subjects may actually be cheaper to visualise via animation or CGI than by going out and trying to film footage, particularly if it's

needed in stereoscopic 3D. Either way, the development and production process is similar in that you'll need to develop a treatment into a script and then commit to that before engaging in the photography/animation process.

Your film will benefit from a good dialogue with producers about the goals you're hoping to achieve – whether it's pure entertainment, brand-led or has a factual basis. You may already have a strong idea of what you want in the film, but producers have more experience of the medium and will be able to help you work out how best to realise your goals and then take that concept from script to screen. It's also important to fill producers in on the broader context of your venue so they can see how it'll be themed with everything else.

A bespoke film can also create a powerful marketing draw as it's a unique experience that you can't have anywhere else in the world. Off-the-shelf films are better for general entertainment, as well as seasonal films, and clearly, they're cheaper to license than to produce.

However, the choice of off-the-shelf films is limited, and venues with a strong theme, brand or specialist subject matter would do well to look at the bespoke option as it's always going to be a better fit for their location.



Have you commissioned your own film? Share your experiences – email [kathleenwhyman@leisuremedia.com](mailto:kathleenwhyman@leisuremedia.com)



**LISA TRUITT**  
 president, cinema  
 ventures  
 National Geographic  
 Entertainment

**A** true destination film starts with a location – where will the film be shown and what topic and story will best fit audiences coming to that venue? But, as with any film, the most important thing is to have a good story to tell and hire a talented team to tell it.

Large format film operators considering a destination film should carefully review previous films made and approach the talent attached to the films they like best or that best represent the style of film they're hoping to make. Second to that, they'll need to think about funding.

These films cost a lot to make, so they'll need to consider whether they can fund the film, pay an advance against future revenues or make any other guarantees to the filmmaker, so as to raise the funding.

Costs are highly variable, depending on format and size of the screen, whether the film will be 2D or 3D, the length and complexity of the production. As an alternative, many classic, large format films are available for lease, but of course may not suit the destination's needs.

First and foremost, a destination film should be entertaining. It should have high production quality and be a valuable addition for the audience. It should enrich and enhance (rather than duplicate) the visitor's experience in a fun and meaningful way. Using 3D

technology makes it really appealing and fun for audiences – box office returns tend to show that audiences want 3D. Any new project should consider 3D production.

Technical requirements for making a film are driven by the screen size and projector type. The bigger the screen, the more resolution needed in the image capture.



**GREG DOWNING**  
 president  
 XRez Studio

**F**ull dome films are an incredible medium for impressing an audience and giving a very strong sense of "being there".

Although the result of a full dome film is truly amazing, creating these types of films creates challenges that are specific to the high resolution immersive formats. When a venue operator is considering hiring a

studio to help them make a full dome film, there are several considerations. The first is the kind of story they want to tell. Can the story be told with non-photorealistic rendering or does it require something photo-real? Will it require live action? Do they trust the aesthetic of the studio that they are entrusting their story to?

Typically, there are two methods that are used for film-making – live-action and CGI. At the time of writing, there's no full motion camera that can capture a full 180-degree hemispherical image at the 4096 by 4096 pixel resolution that full dome requires.

We made our film *Crossing Worlds* to test a hybrid workflow that combines aspects of high-resolution still photography, live-action and CGI to optimise the advantages of each. The primary method we used in the film was to use the very high level of detail that can be achieved with stitched panoramic photography. We then virtually projected those images

onto simple 3D geometry of the scene in Maya. This gave us the realism and detail from the photography and allowed us to move the camera in CG. We then added CGI elements, such as birds and water and composited live-action waterfalls, clouds and fire. When these elements were combined the result was a photorealistic scene that had all the flexibility of 3D. ●

# MAGIC MOMENT

The Wizarding World of Harry Potter opens in July and aims to be the most incredible theme park experience ever. Kathleen Whyman finds out what magic awaits visitors to the park



When guests visit Ollivanders wand shop, they will be able recreate the moment that changed Harry's life, when their wand "chooses" them



Talking portraits include the Fat Lady and the four founders of Hogwarts

For the hundreds of millions of Harry Potter fans worldwide, a magical experience is now only weeks away, after five years in development. Promising scenery, attractions and souvenirs that are faithful to the seven JK Rowling books, The Wizarding World of Harry Potter opens at Universal Orlando Resort, US on 18 June.

Covering 20 acres and estimated to have cost £160m (US\$238m, €178m) to build, the theme park within a theme park will be a fully immersive Harry Potter-themed environment. Visitors will be able to explore Hogwarts School of Witchcraft and Wizardry, run through the snow-covered village of Hogsmeade and stop off at Zonko's joke shop and Ollivanders wand shop before having a butterbeer at the Three Broomsticks.

## MAGICAL TOUR

On arrival, visitors will be greeted by billowing steam and a train whistle, simu-

lating the Hogwarts Express pulling into Hogsmeade station. Looming ahead are the gates to Hogwarts School. Despite standing 150ft (46m) high, the castle will appear to tower up to 600ft (183m)-high due to architectural sorcery. Deep within the castle lies the park's signature ride experience – Harry Potter and the Forbidden Journey. Combining robotic ride system technology with immersive filmmaking, the operators say that new technology had to be invented to achieve the highest level of guest experience.

The ride starts with Headmaster Dumbledore welcoming visitors to his office, then Harry, Ron and Hermione lead an adventure which has guests soaring over Hogwarts, escaping a dragon attack, having a close encounter with the Whomping Willow and getting pulled into a Quidditch match. Fans will also have the chilling experience of coming face-to-face with a Dementor. Other high-



The state-of-the-art ride experience **Harry Potter and the Forbidden Journey** will see guests soaring over Hogwarts and being pulled into a Quidditch match

lights in the castle include a look at the Defence Against the Dark Arts classroom, the Gryffindor common room, the Room of Requirement and the greenhouse. Talking portraits include the Fat Lady and the never-before-seen school founders – Godric Gryffindor, Salazar Slytherin, Helga Hufflepuff and Rowena Ravenclaw. The full experience, including the queue, is estimated to take an hour.

A second ride, **Dragon Challenge** – a duelling roller coaster – will provide guests with a view of the Goblet of Fire and the Triwizard Cup, taken from the fourth book in the series. For younger children, **Flight of the Hippogriff** is a family coaster, named after the magical creature with the head, wings and front legs of a giant eagle and body, hind legs and tail of a horse.

## SPECIAL BREW

As Universal's Hogwarts Castle doesn't include a dining room complete with never-

## WHAT THE CREATORS SAY

**Tom Williams, chair and CEO, Universal Parks and Resorts:** "The Wizarding World of Harry Potter will be unlike any other experience on earth and we can't wait to see the looks on our guests' faces as they enter this rich environment."

**Alice Norsworthy, executive vice president of marketing and sales for Universal Orlando Resort:** "There has been worldwide anticipation for this one-of-a-kind entertainment experience, and we're thrilled to be offering families a way to experience the magic and excitement of Harry Potter's world."

**Barry Meyer, chair and CEO, Warner Bros Entertainment:** "Over the years we've received thousands of letters from fans around the world wishing they could visit Hogwarts and the wonderful locations described in each of JK Rowling's beloved stories. Working with Universal Orlando Resort, we're confident that we'll be able to provide Harry Potter fans with an incredible experience that upholds the richness of JK Rowling's books and delivers on the authentic detail portrayed in our films."

**Stuart Craig, Academy Award-winning production designer:** "Our primary goal is to make sure this experience is an authentic extension of Harry Potter's world as it is portrayed in the books and films."

**Alan Gilmore, art director of the Harry Potter films and The Wizarding World of Harry Potter:** "When guests visit Ollivanders, for example, they'll instantly feel like they're in the shop from the films. It's an intimate, single-windowed building, with the same signs, colours and other details read about in the books and seen in the films. But, more importantly, visitors to Ollivanders will experience for themselves the magical moment that forever changed Harry's life."

**Diane Nelson, president of DC Entertainment:** "The Wizarding World of Harry Potter is yet another way that fans will be able to experience and enjoy Harry Potter for many years to come. The power of this brand speaks for itself, as the enthusiasm of our dedicated fans around the world continues to grow even stronger as we move into the future."

**MORE THAN 400 MILLION COPIES OF THE BOOKS HAVE BEEN SOLD AROUND THE WORLD AND THE FILMS HAVE GROSSED MORE THAN \$5.4BN AT THE BOX OFFICE**



The 150ft-high replica of the iconic Hogwarts Castle will appear to soar to 600ft, thanks to some architectural trickery



ending, magically appearing food, as it does in the books and films, guests can instead buy traditional British fare in the Three Broomsticks or the Hog's Head. No meal would be complete without a butterbeer, pumpkin juice or Firewhisky.

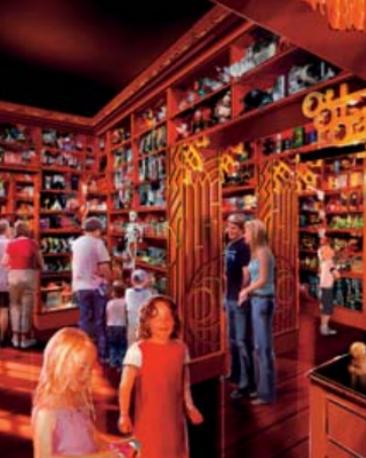
Both pubs are set in the reconstructed village of Hogsmeade, home to wizards and magical creatures. The steep-roofed, slate and stone buildings will be covered in a light dusting of snow and staff will be dressed in costume in both the village and Hogwarts Castle.

The village will also offer many of the shops frequented by the Harry Potter characters. These include Zonko's joke shop, which will be selling Extendable Ears, Boxing Telescopes and Sneakoscopes; Honeydukes sweet shop, tempting fans with Chocolate Frogs and Bertie Bott's

Every-Flavour Beans; The Owlery, where owls roost and visitors can have a rest before buying official stamps from The Wizarding World of Harry Potter and sending letters via Owl Post with a certified Hogsmeade postmark. Ollivanders wand shop should also appeal to fans as a wand "chooses them" thanks to the help of an actor and some special effects.

#### HOLIDAY WITH HARRY

For visitors who want more than one day at The Wizarding World of Harry Potter and Universal Islands of Adventure, vacation packages are available including hotel accommodation and admission to both Universal Orlando theme parks. Benefits include early park admission, a British breakfast at the Three Broomsticks and exclusive Universal Express Access to



Guests will be able to visit Zonko's joke shop and the Three Broomsticks pub, where they can eat traditional British fare and sample Butterbeer and pumpkin juice



#### THE OFFER

- The famous Hogwarts Express at Hogsmeade station
- Zonko's, a joke shop with a collection of tricks and jokes
- Honeydukes sweet shop
- The Three Broomsticks and adjacent Hog's Head pub will serve traditional British fare and drinks, including Butterbeer and pumpkin juice
- The Owlery, where owls roost and await their next delivery
- The Owl Post sends letters with a certified Hogsmeade postmark and sells official stamps
- Ollivanders wand shop is an interactive experience where the wand chooses the wizard
- Dervish and Banges, the magical instruments and equipment shop featuring Quidditch apparatus, Triwizard apparel and Remembralls
- Filch's Emporium of Confiscated Goods is full of Ministry of Magic and magical creatures merchandise, Omniculars and remote control Golden Snitches
- Dragon Challenge – a twin high-speed roller coaster with many iconic elements from the Triwizard Tournament
- Flight of the Hippogriff – a family coaster simulating a Hippogriff training flight over the grounds of Hogwarts Castle
- Located in the depths of Hogwarts Castle, Harry Potter and the Forbidden Journey is a state-of-the-art ride that uses new technology to bring the magic, characters and stories of Harry Potter to life in ways never before experienced

select attractions and shows. On-site packages for four nights start at \$645 (£430, €479) per adult and \$1,548 (£1033, €1149) for a family of four.

Marketing the attraction began in February with an international TV campaign and a microsite dedicated to The Wizarding World of Harry Potter through Universal Orlando's existing website. The site includes an augmented reality map, which gives fans with access to a webcam a three-dimensional look at the park.

More than 400 million copies of the books have been sold in 68 languages in 200 territories around the world and the films, produced by Warner Bros Pictures, have grossed more than \$5.4bn (£3.6bn, €4bn) at the box office worldwide, making Harry Potter the largest-grossing film franchise in history. The final two instalments

– *Harry Potter and the Deathly Hallows* part I and II are still to be released – in November 2010 and July 2011.

Consequently, the expectations of Harry Potter fans are rather high. Oscar-winning production designer Stuart Craig and art director Alan Gilmore were hired to work with artisans from Universal Creative to construct the most authentic Harry Potter experience possible.

The operators are confident they've achieved this and have labelled the park as "the most incredible theme park experience ever". And they have the biggest endorsement possible, with author JK Rowling herself having said: "The plans I've seen look incredibly exciting. I don't think fans of the books or films will be disappointed." As Harry Potter's best friend Ron Weasley would say: "Wicked!" ●

# DASA



With its rich industrial heritage, the city of Dortmund in Germany's Ruhr region is a fitting location for DASA, a permanent exhibition dedicated to the relationship between man and the world of work, as Vicky Kiernander discovers



Once a centre of the coal and steel industries, the Ruhr metropolis is the largest industrial area in Germany comprising 53 towns and cities. The region also boasts 200 museums, 100 cultural centres and 3,500 industrial monuments, and the spotlight is on these attractions and more this year as the Ruhr metropolis holds the title of the European Capital of Culture 2010. DASA in Dortmund will also have its share of the limelight when it hosts the Ecsite Annual Conference in June.

Between 800 and 1,000 delegates are expected to attend the conference making it one of the largest events to be hosted by DASA and somewhat of a daunting prospect, says Philipp Horst, head of exhibition design

and travelling exhibitions. "We're pleased and honoured to hold the conference, but if I'm honest, I was a little afraid at first."

Nonetheless, he's convinced DASA will prove a stimulating setting for Ecsite. "The atmosphere isn't sterile, as it would be at a conference centre, and this will help make the discussions more authentic and fruitful. Our surroundings should be a good backdrop for the invaluable networking opportunities," says Horst.

## EXPANDING EXHIBITION

DASA launched in 1993, as part of the Federal Institute for Occupational Safety and Health, with just one exhibit. The exhibition grew to 13,000sq m (140,000sq ft) over the next seven years and opened in time for World Expo 2000 in Hanover. Its mission is to examine the relationship between man, work and technology incorporating the concept of occupational health. DASA focuses on the physical, mental, social and cultural interests of people while exploring the role of work in the past, present and future and its importance in society.

"It's a difficult topic to make attractive," admits Horst. Which may explain why DASA pitches itself as a hybrid: something between a museum and a science centre. "We're the best of both. We combine the



(Top left) The Aquarius Water Museum is part of the Ruhr's Industrial Heritage Trail; (above left and right) DASA places visitors into reconstructed work situations, so they can understand how the process works; (top right) a 3D offer at the exhibition



PHOTO: VITOBYA / OLONER



PHOTO: KAROLA KOHLER



(Main picture and top left) the former Gasometer is now an enormous sound and light sculpture; (bottom left) a young visitor enjoys DASA's interactive activities

museum method of presenting objects with a very hands-on approach that you would find in a science centre," he says.

DASA uses innovative and interactive exhibits to heighten the public's awareness of the need for an improved world of work. It aims to immerse visitors as far as possible in the exhibits to challenge their thinking, allowing them to experience the various problems that arise in the working environment as well as the possible solutions.

The exhibition has 12 themed areas, which demonstrate various industries including information and communication technologies, media, power, construction and healthcare. Most include interactive exhibits to give visitors an understanding of what it's like to work in these sectors.

Creativity is key, says Horst. "Innovative exhibition design which challenges all the

senses helps visitors to experience the world of work. We recreate situations that involve them physically and emotionally."

For example, visitors discover what it's like to work an old printing press and weaving machine. They can compare the quiet rustling of leaves to the sound of a pneumatic drill in a noise tunnel, and understand what it's like to be hard of hearing. They can sit in a helicopter and run through the necessary checks, get to grips with the challenges of managing the production process in a virtual factory and take a ride on a ghost train; travelling in the dark while being accosted by a variety of typical workplace hazards.

In presenting working environments of the past, present and future in this interactive way, DASA aims to show that while many hazards have been erased from the

workplace, new ones are emerging all the time. And this, says Horst, is why the DASA exhibition will never be complete.

"We're in constant flux and are shifting away from pure occupational safety and health to reflect the changing role of the labour market in society. Twenty years from now DASA will be different, but the nature of the content and its identity as an exhibition will remain the same."

#### EDUCATION EVENTS

DASA plans to introduce two to three large exhibits as well as four to five smaller ones each year to keep abreast of these changes. It also hosts educational events for children and adults including workshops, conferences, panel discussions, lectures, concerts, night-time viewings and an annual careers fair and conference.



The German Mining museum details the industry's development and includes a replica mine

PHOTO: JOACHIM SCHULTZ

As society and the work place changes, so DASA's staff are challenged with finding creative ways of interpreting abstract concepts in a meaningful way. "We're continually thinking about how we can reflect the trends and what metaphors we can use to present subjects like globalisation and the changes in demographics, such as Germany's aging population," says Horst.

For example, he says they're currently considering how to convey the issue of bullying. "We want to make people aware how bullying can harm themselves and others. We want to put visitors in a situation where they can experience the line between being a victim and an aggressor so they can reflect on their behaviour afterwards." Ideas for content generally come from the latest research. "We look into the research, distill what we need and work with design experts to find the visual language to present the information," says Horst.

DASA attracts 180,000 visitors a year and has seen numbers rise during the economic downturn. However, competing with other leisure activities is a challenge for DASA, says Horst. "Financial support for the cultural sector is always under pressure and, in addition, we have to be attractive, entertaining, educational and value for money."

While he welcomes the region's European Capital of Culture status, considering it to be favourable for all attractions in the Ruhr metropolis, he says it's too early to tell how it will benefit DASA.

But the Escite conference is a different matter and Horst's looking forward to showing off the exhibition to the industry. "This is an opportunity to present DASA as an institution that's capable of holding successful events of this scale." ●

## RUHR ATTRACTIONS ROUND-UP

Many of the area's former industrial sites have been transformed into vibrant attractions. An Industrial Heritage Trail now links more than 50 of these in a circular route measuring approximately 400km. These include:-

### ZOLLVEREIN

Formerly one of the largest coal mines in Europe processing 12,000 tonnes of coal a day, Zollverein is now a UNESCO world heritage site and a lively arts and cultural centre. The complex features a number of attractions including the Red Dot Design Museum, said to house one of the world's largest exhibitions of contemporary design, the Ruhr Museum which hosts a permanent exhibition on the region's past and present, an art gallery and ice-skating rink. All these combine to attract approximately one million visitors a year.

### GASOMETER

Since its decommissioning in 1998, the Gasometer has become a landmark for the city of Oberhausen and the region. In 2006, the Berlin

artist Christina Kubisch designed the interior of the Gasometer to transform it into a gigantic sound and light sculpture known as the Light Sky. Today the gas storage facility hosts a variety of exhibitions and events including the Out of This World exhibition, which uses striking reproductions of the planetary system and images of the sun, the planets and their moons to present the birth and development of our solar system. The exhibition runs until the end of 2010.

### GERMAN MINING MUSEUM

With 400,000 visitors annually, the German Mining Museum in Bochum is one of the most visited museums in Germany and also an acclaimed research institute for the history of mining and metallurgy. Twenty halls house exhibits including original machines and equipment to show the development of mining. A replica mine 17m (56ft) to 22m (72ft) below the museum aims to give visitors a real understanding of coal and iron ore mining up until modern times.

### DUISBERG-NORD LANDSCAPE PARK

More than 10 years was spent transforming this former iron works, dominated by three tall blast furnaces, into a 200-hectare, multi-functional park. Visitors can climb to the top of the blast furnace for views of the surrounding countryside, take part in guided tours of the industrial plant, scuba dive in the diving centre in the old gasometer, scramble about in the climbing area in the former ore storage bunkers or visit one of the events on site.

### THE AQUARIUS WATER MUSEUM

This 50m (164ft)-tall water tower is more than 100 years old and today uses multi-media to teach visitors everything about water, including where it comes from, how it circulates and its different forms. Housed on 14 floors, the museum offers a variety of family events such as treasure hunts through the museum, construction of a canal and bike trips in the surrounding fields and woodlands.



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# NIGHT VISION

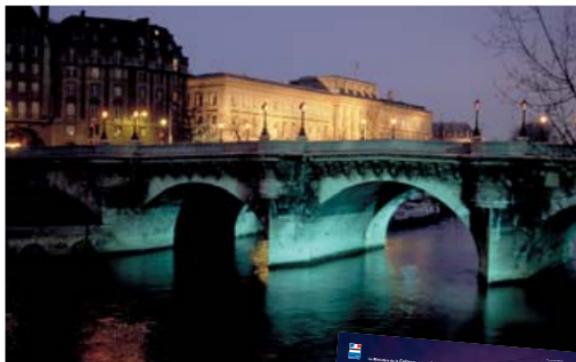
Dancing the night away on *HMS Belfast* and sleeping in the Cabinet War Rooms are among the events being held during the European Night of the Museums. Kathleen Whyman finds out more about what happens after the lights go out

In the film *Night at the Museum*, a security guard has quite a challenge on his hands when all the exhibits come to life once the doors are closed to the public. While such a scenario can't be exactly replicated – and few of us would really want to be chased by a dinosaur, Attila the Hun or an Egyptian mummy – visitors can experience attractions after hours during the European Night of the Museums.

## BON NUIT

On 15 May, more than 2,500 museums of art, history and sciences from 40 European countries will take part in the French initiative European Night of Museums, also known as La Nuit Européenne des Musées. Coordinator Frauke Josenhans says: "Since its creation in 2005, we've constructed and strengthened an effective network of European museums around a common event. Based on a creative and convivial approach, our aim is to encourage the widest audience possible, especially young people and those not familiar with museums, to come and discover the collections on display."

Highlights of the programme include a performance by rock groups in Bosnia-Herzegovina's Museum of Republika Srpska, a celebration of Monet's Water Lilies at the Musée de l'Orangerie in Paris, a jazz concert at the Hungarian National Museum in Budapest, a dramatisation of Galileo's invention of the telescope at Museo di Storia della Scienza in Florence, Italy and a workshop at the State Historical Museums in Moscow, Russia, where chil-



The project, also known as La Nuit Européenne des Musées, originated in France in 2005 and this year 40 European countries will take part

dren can make copies of prehistoric tools and bronze jewels. In the Czech Republic, free transport will be provided to Brno City's 16 museums, which will all open until midnight. Museums and galleries in Bulgaria, Latvia, the Netherlands, Poland, Portugal, Serbia, Slovakia, Spain and the UK are also taking part.

## MUSEUMS AT NIGHT

The UK has extended the event to cover an entire weekend from 14-16 May. The Museums at Night weekend is funded by the Museums, Libraries and Archives Council (MLA) and coordinated by Culture24, which has a database of 4,000 museums and galleries and works with La Nuit Européenne des Musées.

In 2009, the weekend opened with a 1940s dance hosted on the deck of *HMS Belfast* – the historical ship that served during World War II and the Korean War.

The Imperial War Museum in London is one of the 180 museums and galleries already signed up to this year's scheme



More than 150 attractions got involved with activities across the country, including a showing of horror films alongside Egyptian mummies, torch-lit tours, sleepovers and speed dating and around 34,000 visitors attended activities over the weekend. Jane Finnis, director of Culture24 was more than pleased with the feedback. "More than 80 per cent of visitors rated their experience as eight or above out of 10," she says. "And more than 60 per cent were new to the venue they attended."

This year's event is shaping up to be even more successful with 180 museums and galleries already signed up and more





Pictured clockwise from top: The Geenor Tin Mine, The National Maritime Museum and the Mary Rose Museum

expected nearer the time. Roy Clare, chief executive of MLA, believes that it's the ideal way to attract new visitors to museums. "Modern life for many people is a 24-hour experience," he says. "Museums at Night responds to this round-the-clock lifestyle by providing a rich and unusual opportunity for everyone to spend quality time browsing the great diversity of collections. It encourages people, especially those who would never normally go to their local museum, to devote an evening to discovering the free resources that lie just on their doorstep. This is a way for museums to open their doors and interpret their collections to inspire fresh discovery and provoke more satisfying experiences."

## AFTER DARK

There is no theme for the weekend but museums and galleries are encouraged to do something that's relevant to their attraction rather than following a formula. Finnis advises operators to think about what their venue may have been in the past. "Many places were working sites once and people love seeing what places would have looked like," she points out. "For example, there used to be a night shift at the Geenor Tin

Mine in Cornwall, so they're going to open in the evening and recreate what it would have been like to have worked in the mine at night. Or keep it really simple; many museums are in buildings which used to be houses and look very different at night lit by candle. Alternatively, do something around a particular exhibit," she continues. "Eastbourne Readout Fort has a collection of telescopes so is hosting an event on astronomy. It's also an opportunity for members of staff to tell stories about the objects and indulge their passions."

Last year's event revolved primarily around families, and while many still are, this year there are more events aimed at adults. These include a paranormal investigation at Chatham Historic Dockyard, Hovercraft Museums taking some of the old, smaller craft out on the sea at night, a talk on style at the Victoria and Albert Museum (V&A) alongside the Grace Kelly exhibition and a sleepover at the Churchill Cabinet War rooms, where visitors can enjoy a two-course dinner, breakfast, a tour of the War Rooms and an overnight stay in Whitehall beneath Downing Street. Last year's event was such a success that the number of attendees has been increased

from 40 to 50. Simon Thomson, learning and access manager at the Churchill Museum and Cabinet War Rooms, says: "We collected feedback on the morning after the event, which was universally positive about the experience – including the sleeping accommodation, which surprised us! Particular highlights were focused around the tour of the site and the sense of a unique opportunity."

The extended opening hours until midnight reaped rewards for the V&A last year, with almost 2,000 people visiting on the Friday night between 5.30pm and midnight. Elizabeth Barrett, head of press, welcomes the opportunity the Museums at Night weekend offers and looks forward to repeating the experience this May. "It's a great opportunity for visitors to see the exhibitions outside of normal opening times, meaning that more visitors and a broader audience can enjoy the museum and its shows," she says.

Whether it's recreating a past experience, showcasing an attraction by candlelight or giving in-depth insight into a collection, operators can find something to appeal to new visitors, who, will hopefully, become loyal regulars. ●



# BURNING ISSUE

Rescuing animals from a fire in the middle of the night was the horrific situation Dardenelle Long, director of Chattanooga Zoo at Warner Park, Tennessee, found herself dealing with in 2006. Kathleen Whyman hears what happened and how other zoo operators can avoid suffering the same ordeal



It took fire fighters several hours to put out the fire, which had been caused by a faulty heat lamp

### What happened?

One night in November 2006, at around 11.30pm, a citizen was driving past the zoo and saw smoke in the park, so raised the alarm. The fire was caused by a faulty heat lamp in the zoo's Education Center, which is a standalone building at the front of the zoo. It didn't burn down completely but there was extensive damage. Luckily the fire didn't spread to any other buildings or animal enclosures.

### How did you feel when you heard the news?

From the initial call, I wasn't sure which building was involved, so I was uncertain as to what animals might be in danger. I was horrified when I arrived and saw the state of the damage. I had no idea that it had caught so quickly – the entire roof was engulfed and it took the firefighters several hours to put the fire out.

### How were the animals evacuated?

The fire department got there within 10 minutes of the call. I arrived with some other staff members shortly afterwards. The animals were carried away or rolled in cages. Most were small enough to be handled with no problems. Luckily there were no dangerous animals housed in that area

so we didn't need to worry about tranquilising them before moving them to safety. Most of the animals were put into an older building in the zoo. A couple of buildings were without electricity because the firefighters had to shut off the power to the Education Center.

### What happened to the animals after they were evacuated?

Some were transported to an emergency centre. The rest we moved to the reptile house and another area that had previously housed animals. After the fire, we were furnished with large office trailers and delayed renovating one of our buildings so we could house the animals there. It was several months before we could return them all to their enclosures.

### Were many animals injured or killed in the fire?

Only a few animals, including a tortoise called Eddie, were exposed to the actual fire. All the injuries incurred were smoke inhalation related. Most animals recovered within a week, but sadly 13 died. Another tortoise was transported to the Knoxville Zoo Veterinary college for treatment. She had really bad respiratory problems and took a month to recover.



(Above) the new Education Center; (top right) Eddie, a Vietnamese elongated tortoise, survived the fire; (bottom right) life is good now



#### What damage was done to the zoo?

The Education Center suffered more than US\$500,000 (£306,000, €348,000) worth of damage. Initially we weren't sure if we'd be able to raise the funds to rebuild the centre, but luckily an insurance policy was in place. We also received donations from businesses and private citizens, which helped pay for things not covered by insurance, such as supplies and food items.

A school group raised money to buy two ferrets and a chinchilla to replace those that died and they bought tons of supplies for them as well. It took a while for the insurance investigation and reimbursement, so we were dependent on donations until then. US Xpress, a trucking company, loaned us a truck to store all of the donations in until the building was finished.

#### How were staff affected?

As the fire occurred at night, no one was present. Staff were offered counselling and employees from two other zoos came to help out in the days following the fire, which was great. Our graphic artist did a wonderful tribute in the newsletter that really helped. We also have a sign in the Education Center in memory of the animals. Three years on we still talk about the fire and miss the animals that we lost.

#### How were visitors affected?

We only closed for two days. When we reopened there was a slight increase in visitor numbers because people were concerned for the zoo and the animals that they loved.

#### What do you feel you've learned from the incident?

We now have a much better relationship and training programme with our fire department. We provide more detailed training for staff and make sure there are adequate power outlets to avoid extension cords and that heat can be provided in a safe manner. We've always run emergency drills that usually involve the escape of an animal, but also teach us to function as a team, which helped during the fire.

We now think more about sprinkler systems and material choices – I love concrete! We include a map on the outside of all buildings describing what animals are housed there, where firefighter safe areas are and where chemicals are stored. We also have full-time security now.

#### What advice can you give operators?

Have frequent tours of your facility with the fire department and have maps available on the outside of buildings, so they know which areas are safe to enter. ●

#### ABOUT CHATTANOOGA ZOO

The Chattanooga Zoo at Warner Park, formerly the Warner Park Zoo, is a 13-acre (53,000sq m) zoo located in Downtown Chattanooga, Tennessee, US. The zoo was established in 1937 and houses the largest indoor red panda exhibit in the world in its Himalayan Passage area, which also includes snow leopards and hanuman langurs.

The \$2.1m Gombe Forest exhibit is home to five chimpanzees. The Donovan Interpretive Center features an indoor chimp viewing area. The Corcovado Jungle has animals from Latin America including jaguars, spider monkeys, macaws and capybaras. Walkin' the Tracks holds the zoo's North American animals while The Cougar Express has indoor viewing in a train car for two cougars, prairie dogs and whitetail deer.

The zoo is undergoing a five-phase, \$12m renovation, which includes the addition of new exhibits and the expansion of the animal collection to include African penguins, gibbons and komodo dragons. New species will also be added to the South American, African, Asian and North American zones.

# DEVELOPMENT PIPELINE

As the global economy is showing the first signs of recovery, we decided to sit down at *Attractions Management* HQ and list what we think are the most exciting projects underway around the globe. Do you agree with our choices? If not, let us know at [attractions@leisuremedia.com](mailto:attractions@leisuremedia.com)

## NORTH & SOUTH AMERICA

### SCHLITTERBAHN

**What:** Schlitterbahn Waterpark, the company's fifth

**Where:** Cedar Park, Texas, US.

**When:** 2012

**How much:** US\$360m (€259m, £227m)

The 67-acre attraction will include a

Schlitterbahn Boutique Hotel and Conference Center. Schlitterbahn describes the new site as an 'experiential entertainment resort'.

Facilities at the new site will include a year-round waterpark, lodging and restaurants. The first phase of the project is scheduled to open the summer of 2012. The park will be developed in a partnership between Schlitterbahn, entrepreneur Rick Redmond, the Principals of Suntex Ventures and Garrett-Ihnen Civil Engineers.



### ELATED WORLDWIDE GROUP

**What:** Mayan Adventure Land theme park

**Where:** Cozumel, Mexico

**When:** 2011

**How much:** TBC

US-based Elated Worldwide Group has completed a conceptual masterplan for a new theme park called Mayan Adventure Land in Cozumel on the Yucatan Peninsula.

The attraction, to be built on 60 acres of land, will boast four thrill rides and five family rides as well as hotels, retail and food outlets in a bid to create a new tourist destination.

The masterplan is being designed by DKY Architects.

### CENTRAL AMUSEMENT INTERNATIONAL

**What:** Coney Island Theme Park

**Where:** Coney Island, New York, US

**When:** 2011

**How Much:** US\$30m (€22m, £19m)

Central Amusement International has agreed a deal which will see it lease a 6.2-acre piece of land from the city of New York for a 10-year period and build and operate the park on the site.

During the first phase this summer, CAI will open Luna Park at Coney Island, which will feature 19 rides, including one – Air Race – that will make its worldwide debut at Coney Island.

The second phase, opening by summer 2011, will be named Scream Zone at Coney Island and will provide additional attractions, including two custom roller coasters, a human slingshot ride, and go-karts.

The new park is part of the city's Coney Island Revitalisation Plan.



### BRAZILIAN GOVERNMENT

**What:** Museum of Image & Sound

**Where:** Rio de Janeiro

**When:** 2011

**How much:** Not disclosed

New York architects Diller Scofidio + Renfro have designed the new home for Rio's Museum of Image and Sound. The museum's existing site is in the city centre and houses a huge collection of Brazilian music, photographs, videos, posters, films and newspaper archives. The new museum will explore the history of Brazilian music and film and will feature an auditorium, a piano bar, a restaurant and a rooftop cinema.

## AFRICA & MIDDLE EAST

### POLO AMUSEMENT

**What:** Ice Land waterpark, largest in the Middle East

**Where:** Ras Al Khaimah, UAE

**When:** 2010

**How much:** Not disclosed

The Ice Land waterpark, claimed to be the largest in the Middle East, is scheduled to open this April in Ras Al Khaimah, UAE. The Ice Land Water Park is the first element to open as part of the 120-acre family entertainment destination, WOW RAK. Located 80km north of Dubai, WOW RAK will also boast an amusement park, shopping mall and resort facilities when complete. Developed by Polo Amusement Park as a joint venture with the local authorities of the Emirate of Ras Al Khaimah, the 110,000sq m waterpark will boast a variety of waterslides.

### TOURISM DEVELOPMENT & INVESTMENT COMPANY (TDIC)

**What:** Louvre Abu Dhabi

**Where:** Abu Dhabi, UAE

**When:** 2012

**How much:** Estimated UAED500m (US\$135m, £91m, €100m)

The sister museum to the Parisian institution will be part of a US\$27bn (£17.8bn, €20.2bn) tourist and cultural development on Saadiyat Island. French architect Jean Nouvel designed the facility, which will display European, Indian and Middle Eastern, Islamic and Oriental art.



### LIBYAN GOVERNMENT

**What:** Conflict Museum

**Where:** Tripoli, Libya

**When:** 2011-12

**How much:** Not disclosed

London-based architects Metropolitan Workshop are to design Libya's Conflict Museum in Tripoli, which will document the country's battle for independence. The 15,000sq ft (1,400sq m) attraction will display military aircraft, guns, tanks and other weaponry and galleries featuring the history of the Libyan revolution. The museum will also offer a café, museum shop, prayer rooms, a poppy field garden of remembrance, an education centre and conference facilities.

### SIX FLAGS/CROSS RIVER STATE GOVERNMENT

**What:** Six Flags theme park

**Where:** Calabar, Cross River State, Nigeria

**When:** 2013

**How much:** Not disclosed

The park forms part of the Cross River State Government's (CRSG) "Destination Tourism" plans. Under a binding agreement between the US-based park operator and CRSG, Six Flags will provide concept development and master planning services to CRSG for the creation of a branded theme park located on about 250-acres (100 hectares) adjacent to Tinapa Business Resort. The initial phase is currently being finalised and Six Flags and CRSG are collaborating on the detailed design, development, construction and management of the park.



### HUQIANG HOLDINGS

**What:** Fantawild theme park

**Where:** Johannesburg, South Africa

**When:** 2012

**How much:** US\$250m (£151m, €175m)

The 770,000sq m (8,300,000 sq ft)

Fantawild Adventure will have three zones, featuring Chinese culture, African culture and global culture and aims to introduce Chinese cultural masterpieces and classic ancient stories to the South African public.

The project is being developed by Huaqiang Holdings with support from the China Development Bank, the China-Africa Development Fund and the Industrial Development Corporation.

The park is expected to attract between two and three million visitors a year.



## EUROPE

## TATE MODERN

**What:** Extension  
**Where:** London, UK  
**When:** 2012

**How much:** £215m (US\$323m, €236m)

Designed by Swiss architects Herzog & de Meuron, the Transforming Tate Modern project will feature an 11-storey glass tower in the form of a spiraling stepped pyramid. The extension will be added to the south-west corner of the existing gallery and the new building will be 65m (213ft)-tall, adding 21,500sq m (230,400sq ft) to the Tate Modern's existing 35,000sq m (377,000sq ft). The museum will also boast two new public spaces – a southern square modelled as a city piazza and new child-friendly gardens to the west.



## INTERNATIONAL LEISURE DEVELOPMENT

**What:** Gran Scala entertainment city  
**Where:** Aragón, Spain  
**When:** 2013

**How much:** €17bn (£13bn, US\$26bn)

Plans to build the multi-billion euro leisure complex were first announced at the IAAPA Expo 2007 in Orlando, Florida. Ride manufacturer Vekoma was touted as one of the lead suppliers for the rides at the Spyland theme park – one of the first elements scheduled to open at the giant development. Gran Scala will be modelled as a city, similar to Las Vegas, and will include 32 hotel casinos, five large theme parks, retail outlets, restaurants, a golf course, a horseracing track, an opera, museums, and residential development.

## PARAMOUNT PICTURES/REGIONAL GOVERNMENT OF MURCIA

**What:** Paramount Theme Park  
**Where:** Murcia, Spain  
**When:** 2013

**How much:** TBC

Paramount Pictures is understood to have agreed to undertake a viability study on a large-scale theme park in the Murcia region of Spain. The Spanish minister of culture, Pedro Alberto Cruz, said he had completed initial talks with Paramount's licensing division expressing their interest in launching the project once its economic viability has been proven.

## CINECITTA ENTERTAINMENT

**What:** Cinecitta Theme Park  
**Where:** Dino Film Studios, Rome, Italy  
**When:** 2013

**How much:** €600m (US\$805m, £540m)

Plans for a new theme park in Rome, depicting life in the city 2,000 years ago, are moving ahead. The project will be built on a 650-acre site in the city's Castel Romano, partially on the backlot of the former Dino film studios, which is owned by Cinecitta Entertainment. The development is being backed by the Italian Entertainment Group and plans include 38 rides and attractions. If the park is successful, Cinecitta plans to expand the site by two further theme parks adjacent to the original park.



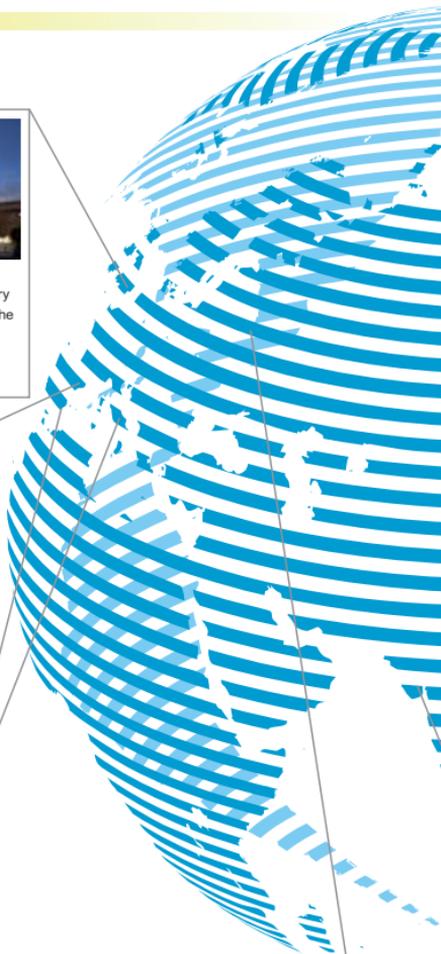
## MT DEVELOPMENT

**What:** Freestyle Park leisure complex  
**Where:** Moscow, Russia  
**When:** 2011-12

**How much:** RUS16.8bn (US\$620m, £406m, €472m)

The 280,000sq m (3,000,000 sq ft) sport and leisure destination is expected to attract five million visits annually.

The development will be anchored by the Snow Zone, a 39,000sq m (420,000sq ft) indoor facility that will include the longest indoor ski slope in the world. Other activities and attractions within the complex will include an Aqua Park, Entertainment Centre, Centre of Entertaining Science and a nine screen multiplex cinema. There will also be a luxury spa, hotel, retail and dining and residential apartments.



## ASIA

### UNIVERSAL STUDIOS

**What:** Universal Studios theme park

**Where:** Seoul, South Korea

**When:** 2014

**How much:** US\$2.7bn (€1.83bn, £1.65bn)

Universal Studios has resurrected its plans to build a new theme park near Seoul in South Korea. The scheme was originally announced in 2007, but regional authorities struggled to raise the funds amid the global economic crisis. However, Lotte Group and Posco Engineering and Construction – two of the country's biggest companies – have agreed to finance the project. The site comprises a movie theme park, waterpark and resort – including a golf course and condominiums – with director Steven Spielberg likely to act as creative director.



### SOUTH KOREAN GOVERNMENT

**What:** Robot Land

**Where:** Incheon, South Korea

**When:** 2013

**How much:** KRW784.5bn (US\$694m, £462m)

The central government of South Korea announced that it will begin work later this year on the first of two Robot Lands planned for the country.

The first one, in the city of Incheon, is scheduled to be completed in 2013 with parts of the park opening by 2012. The park will boast entertainment facilities, exhibition halls, a water park, research and development centres, education buildings and industrial support facilities.

### WALT DISNEY CORPORATION

**What:** Disneyland Shanghai

**Where:** Shanghai, China

**When:** 2014

**How much:** US\$3.5bn (€2.1bn, €2.3bn, CNY 23.9bn)

The project's initial phase will include a Magic Kingdom-style theme park containing some elements tailored to the Shanghai region and others consistent with the offer in Disney's parks elsewhere in the world.

The resort will increase Disney's destinations to six, joining Disneyland Resort in California and Walt Disney World Resort in Florida; Tokyo Disney Resort in Japan; Disneyland Paris in France; and the Hong Kong Disneyland Resort.



### OIL AND NATURAL GAS CORP.

**What:** Oil Museum

**Where:** Gujarat, India

**When:** 2011

**How much:** Not disclosed

India's Oil and Natural Gas Corporation (ONGC) is planning to build an oil museum at Gujarat Science City, near its Ahmedabad Asset site. ONGC's executive director at Ahmedabad Asset, Anil Johri, met with Gujarat's chief minister Narendra Modi to go over the details of the 1,000sq m (10,800sq ft) museum. The museum would feature real-size and miniature models and interactive exhibitions. Further details have not been released, but the museum would commemorate 50 years of ONGC Ahmedabad Asset in 2011.

### JUNIPER GROUP/GOLD COAST CITY COUNCIL

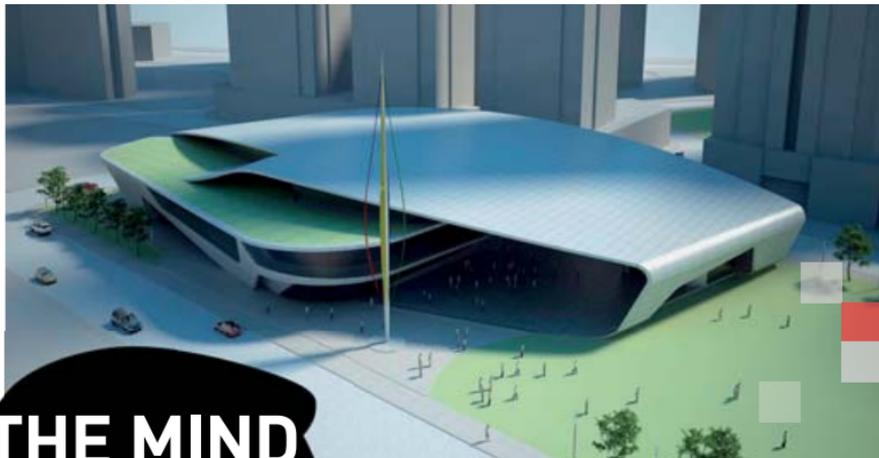
**What:** Surfers Paradise

**Where:** Gold Coast, Australia

**When:** 2011

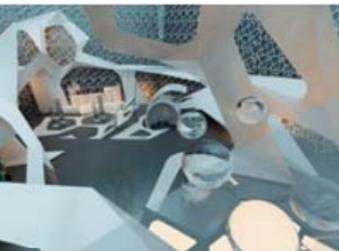
**How much:** AUD\$25m (€14.3m, US\$22.4m, €16.5m)

Work is now under way on the project to reconnect the city with the beach in Surfers Paradise on Australia's Gold Coast. The redeveloped foreshore will be split into three zones: urban plaza, urban beach and urban park. Funded by AUD\$20m (€11.5m, US\$18m, €13.2m) from the Gold Coast City Council and AUD\$5m (€2.9m, US\$4.5m, €3.3m) from the Queensland State Government, the Surfers Paradise Foreshore Masterplan is part of a AUD\$90m (€51.5m, US\$80.8m, €59.4m) 'economic stimulus' package to improve infrastructure and create jobs. ●



# THE MIND MUSEUM, MANILA

Next year a world class science centre will open its doors in the Philippines – the first time the country has seen a project on this scale which involves the private sector to such an extent. Kath Hudson speaks to Rizza de Claro, marketing and fundraising assistant for the Mind Museum



## WHAT IS THE MIND MUSEUM?

The museum will be the first, world-class science museum in the Philippines. It will be our defining legacy that will give the next generation the wings to fly against the challenge of a future shaped largely by service and technology. With more than 150 interactive “minds-on” and hands-on exhibits, the museum will present science as entertaining, fun, and engaging.

It’s designed to appeal to people from six-years-old to 96 and will cover 7,595sq m (81,750sq ft) and accommodate up to 1,000 people at a time. We predict we’ll receive 576,000 visitors annually, 90 per cent of whom will be from the local area.

## WHO’S INVOLVED WITH THE MUSEUM?

The Mind Museum has an institutional partnership with National Geographic, from which a significant amount of the content

**The Life Gallery (top) and Atom Gallery (bottom) are two of five galleries at the Mind Museum, which will be the Philippines first science museum**

is being sourced. The building is designed by Ed Calma of Lor Calma & Partners. The exhibitions are being designed by various local artists, architects, and industrial designers, under the exhibition design framework prepared by Jack Rouse Associates. Singapore Science Center is also providing guidance.

The project proponent is the Bonifacio Art Foundation Inc (BAFI), with a board of trustees made up of individuals from Ayala Land and the Campos Group. Our chair is Joselito D Campos Jr and our vice-chair is Fernando Zobel de Ayala.

## WHAT ARE THE FIVE GALLERIES?

The Mind Museum will present science according to five main stories. Each story is not intended to be a conventional tale with a plot, but will be an experiential discovery of the world around us.

The five galleries are: The Story of the Universe: Its Beginning and Majesty; The Story of the Earth: Its Story Across the Breadth of Time; The Story of Life: The Exuberant Varieties of Life; The Story of the Atom: The Strange World of the Very



The highlight of The Universe gallery will be the Spaceshell (left), a mini-planetarium where visitors will learn about how space began

Small and The Story of the Technology: The Showcase of Human Ingenuity.

The first four stories will cover the simplest – the cell – to the most complex – the brain. Everything will be covered from atoms, to the universe, to the breadth of natural history and the depth of various life forms of the world around us. Technology – the fifth story – describes human ingenuity and showcasing the tools that result from our knowledge of the first four stories: that is, what we do with what we know.

#### HOW DID YOU DECIDE ON THE TOPICS TO BE COVERED?

The curator, Maribel Garcia, thought that it would be best to present science in terms of scale from the smallest, like the atom, to the biggest, which is the universe, and everything in between.

#### HOW WILL THE MUSEUM BE DEVELOPED IN THE FUTURE TO ENCOURAGE REPEAT VISITS?

The Mind Museum aims to make science come alive by having more than 200 interactive exhibits and changing exhibits, which visitors can come back for. If you spend a minute per exhibit, it will take you three hours to visit them all, so people aren't expected to look at absolutely everything in one visit.

#### WHAT WILL BE THE HIGHLIGHT?

Each gallery will have its own centrepiece. The Atom gallery will have a fascinating 360-degree visualisation of the atom.

The Universe gallery will have the Spaceshell, a mini-planetarium where visitors will learn about the beginning of the universe. The Earth gallery will have Nature's Hourglass: a mini-theatre where visitors will see Birthplace, an enthralling 12-minute, fully animated film of 4.6 billion years of Earth's history. The Life gallery will have The Human Brain exhibit. It is one of the largest exhibits in the museum showing what lights in our brains when



we fall in love, get angry, or eat chocolate. The Technology gallery will have the Human Face of Technology, featuring uploaded videos of people describing their favourite technology.

#### WILL THE MUSEUM HAVE ANY ALTERNATIVE USES?

The museum will have a theatre, classrooms (called Mind Pods) and laboratories, where founders can hold corporate training sessions and other educational meetings for schools.

#### HOW IS IT SUSTAINABLE?

The building in itself is green technology. The roof of the museum can collect rainwater for flushing and watering the plants. The museum is designed to be environmentally friendly. We also have local fabricators doing the exhibits.

#### WHAT STAGE IS THE PROJECT AT?

We are finished with the design of the building and exhibition, and about to start

construction. We're scheduled to open in the fourth quarter of 2011.

#### WHAT ARE THE CHALLENGES?

It is a first, here in the Philippines, to build a world-class science museum. We have the privilege of meeting the challenges of all the firsts, such as getting the private sectors involved, having the best team to make this happen, and, most importantly of all, to give the Philippines a science museum they will be truly proud of.

#### HOW WAS FUNDING RAISED?

The museum is costing 1bn Philippines Pesos (£14.6m, US\$22.5m, €16.7m). The Bonifacio Art Foundation Inc has provided the seed money and the rest has been contributed by a number of corporate and private donors, including Ajinomoto, Ayala Land Inc, Ayala Foundation, BPI, Del Monte, HSBC, Hapee Toothpaste, JP Morgan Chase & Co, Shell, Sony, St. Luke's, Tan Yan Kee Foundation, Timezone and Uratex. ●

# CHOCOLATE FEST

It's rare to meet someone who doesn't like chocolate. Which is probably why it continues to be such an appealing subject for so many attractions around the world.

Kath Hudson looks at some of the sites that are whetting our appetites

While the Western world can't remember a time without chocolate, its influence in China is altogether more low key, with, according to the European trade association Caobisco, the average Chinese person only consuming 100g a year. By contrast, the Irish are the world's biggest chocolate munchers, eating 11.85 kilos a year, the Brits are just behind with 10.8 kilos being eaten, while Americans eat 5.18 kilos a year.

World Chocolate Wonderland, a new theme park which is actually made from chocolate, at Beijing's Bird's Nest Stadium site aims to change all that.

Launched with a fashion show, where the models wore clothes and wigs made from chocolate, the attraction is an awe-inspiring showcase of chocolate art. Exhibits include Louis Vuitton handbags, Ming Dynasty porcelain, a 33ft (10m) model of the Great Wall of China and a BMW made out of two tonnes of chocolate, which took 10 people six months to build.

Due to the non-durable nature of its building materials, the theme park will only open for three months – from 29 January

to 10 April – then will close and be rebuilt each year. During its three-month lifespan, the attraction has a target of one million visitors. Eight thousand people came to the opening and figures were higher over the first weekend.

It took five months to build, with chocolate imported from Switzerland, Germany and Belgium. The 20,000sq m (215,000sq ft) exhibition space includes three exhibition halls, all temperature controlled so that the chocolate exhibits, which are enclosed with glass panels, won't melt.

Visitors can make their own chocolates and marvel at the exhibits. However, it seems the real aim of World Chocolate Wonderland is to introduce the pleasures of chocolate to a vast and untapped audience. As the Chinese get richer, their tastes are expected to get sweeter and the potential for chocolate sales is enormous.

Belgian chocolate manufacturer, Barry Callebaut, was one of the chocolate manufacturers happy to jump on the opportunity, sponsoring one tonne of the chocolate used to make an army of 500 chocolate warriors and running demonstrations of a

chocolate showpiece during the opening week. Paul Halliwell, Barry Callebaut vice president gourmet Asia-Pacific, says the company was keen to get involved and will continue to support it in future years.

"We believed it was a good opportunity for us to engage the public in the education of chocolate and promote our brands, especially our Belgian brand, Callebaut," he says. "Today, China consumes very little chocolate per capita, but represents a good opportunity in the future. So we wanted to promote our company and our brands to the Chinese. It also gave us the opportunity to explain about real chocolate versus compound coating, which has been traditionally used in China."

Most chocolate attractions follow the same formula: they show the chocolate-making process and involve the audience, provide the opportunity to taste it and recount the heritage of the manufacturer, or country, or both. World Chocolate Wonderland is completely different. It's been done on a huge scale, attracting the attention of companies from around the globe, all anxious for a toehold in the



An average Chinese person only eats 100g of chocolate a year (Brits eat 10.8kg). World Chocolate Wonderland hopes to change this



de Chocolade Fabriek in Amsterdam was inspired by Roald Dahl's famous book, *Charlie and the Chocolate Factory*

Chinese market. This is the beginning of China's chocolate history and it will be interesting to see how the story evolves as the park is rebuilt each year.

### WILLY WONKA'S WONDERS

Roald Dahl's famous book, *Charlie and the Chocolate Factory*, is the inspiration for the €20m (£18m, US\$27.3m) de Chocolade Fabriek in Amsterdam, which has been on the drawing board for 10 years. Maurits Rubenstein, owner of Rubenstein Publishing, the largest audio-publishing company in Benelux, came up with the idea when producing a radio play



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## BOX OF DELIGHTS – OTHER CHOCOLATE ATTRACTIONS

Germany's Imhoff Stollwerck Schokolade Museum in Cologne, was founded in 1993 and Lindt became a partner in 2006. It's an educational experience, giving visitors an insight into the world of making chocolate.

The Hershey Story, in the US, tells the tale of the chocolate empire builder, Milton Hershey, and allows visitors to get their fingers sticky in the Chocolate Lab where they can mould, dip and make chocolate from scratch.

Schokoland Alprose is Switzerland's national chocolate attraction, owned by Chocolat Alprose, the country's largest

chocolate-manufacturer. It highlights the tradition of Swiss chocolate making, renowned for its excellence.

Supported by the National Science Foundation, Chocolate has been a touring US exhibition since 2002, when it started at Chicago's Field Museum. It tells the story behind confectionery dating back 1,500 years to the rainforest.

The Ganong Chocolate Museum in St Stephane has put the town on the map as Canada's chocolate capital. There are hands on exhibits, interactive computer displays and antique production equipment on show.

The Museu de la Xocolata, one of Barcelona's smallest museums, tells the history of chocolate in Europe.



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Cadbury World in Birmingham, UK (left) and Nestlé's iconic "red origami bird" building in Mexico City, Mexico (right)

on the book. "That was the start, it triggered my mind," he says. "Our office is an old monument, built around 1886 and we have two floors which are empty. I thought it would be great to do something where children could play and learn about chocolate."

The hook of de Chocolate Fabriek is Holland's heritage as a chocolate and cocoa producer and over the past 10 years Rubenstein has been building up a memorabilia collection, as well as travelling the world sampling chocolate attractions. Having looked at many attractions, he found some to be very good and some on the verge of boring, so he's keen to make sure there's a strong element of fun at de Chocolate Fabriek.

The 4,500sq m (48,000sq ft) attraction will span several levels. "There will be a real chocolate factory, where children can see and learn and make their own chocolate," explains Rubenstein.

"There will be a fun part, where they can smell, touch, feel and eat chocolate, as well as historical exhibits, exhibitions on chocolate-related topics and a museum telling the story of Holland's chocolate history. There will be a chocolate fountain, a canteen and a restaurant where visitors can eat an actual chocolate menu."

Drawings and designs are currently being finalised and it's hoped de Chocolate Fabriek will be open at the end of 2012.

With the aim of attracting 350,000 visitors a year, Rubenstein is bankrolling it, with the help of some co-investors, so hopes the attraction will "stand on its own" from the beginning.

There are plans for some of the profits to go to the Children for Chocolate Foundation, which helps children who depend on cocoa for a living: a reminder that there's also a serious side to chocolate.

**"Cadbury World is a sweet, delicious, fun place to visit. Everyone has some kind of connection with chocolate. Chocolate has a feel good factor, but mostly people just love the smell and the taste"**

## FRUIT AND NUT CASE

To mark its 20th year of operation, Cadbury World, in Birmingham, UK, has invested £500,000 (\$757,600, €554,300) in a new zone, which looks back over the company's past advertising campaigns, from the turn of the last century. Cadbury has always been proud of its advertising: it was one of the very first advertisers on commercial television in 1955 and this exhibit is a way of reminding visitors of its well known campaigns, including the iconic drumming gorilla, the 'everyone's a fruit and nut case' adverts from the 1970s and the Flake adverts with a different sultry girl for each era. Made to look and feel like chocolate, the visitor will walk through a wall of melted chocolate into Advertising Avenue, walking past trees made of chocolate and across a chocolate bridge. Looking through the windows of chocolate buildings, the visitors will recognise the Cadbury adverts from their childhoods.

Last year, Cadbury World received 570,000 visitors and it's hoped that the new exhibition will push this up to 600,000 this year. Marketing manager Lucy Giaquinto says that chocolate attractions have an enduring appeal because they are liked by such a wide audience: "It's a sweet, delicious, fun place to visit. Everyone has some kind of connection with chocolate. Chocolate has a feel good factor, but mostly people just love the smell and the taste."

## THE ORIGAMI BIRD

Mexico's first chocolate museum opened at the Nestlé factory, in Mexico City, in April 2007. Nestlé wanted to provide an inner pathway through the factory to show visitors the production process. Architects rojkind arquitectos took this a step further by creating an iconic building, resembling a red origami bird, which they say mirrors the magical world inside. The result is "an unfolding kaleidoscope," says Michale Rojkind, founder of the practice.

The new building has a reception area – a playful space with sofas shaped like chocolate bars – which will immediately delight children and whet their appetites for the tour ahead. Next, a virtual reality theatre experience prepares them for the tour and, finally, a tunnel takes them into the factory to learn how chocolate is made.

With so many mouth-watering attractions worldwide, it could well be just a matter of time before the Irish find themselves being challenged as the number one consumers of chocolate. ●

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# FLOWER POWER



A beautifully landscaped park is the setting for Floriade 2012, but the expo also shows how horticulture can help sustainability and education. Managing director Paul Beck tells Kathleen Whyman more

## What is Floriade 2012?

Floriade 2012 is an official world expo about horticulture. Running from April to mid-October 2012, visitors will be able to enjoy the world's most exquisite and exceptional flowers, plants, trees and fruit and vegetables in a beautiful park.

The aim of the expo is to change how people think about horticulture. The overall theme is 'Be part of the theatre in nature; get closer to the quality of life'. This is divided into five core themes represented in five different zones in the park. These themes are education and innovation, environment, relax and heal (wellbeing), green engine (sustainability) and world show stage (each day features a cultural programme of music, dance, literature, theatre and visual art from all over the world).

We're expecting about 90 Dutch exhibitors and 25 participating countries including Germany, France, Belgium, Spain, Italy, Nigeria, Ethiopia, Thailand, China, Germany, India and Pakistan.

## Where is it being held?

Floriade 2012 is taking place in the Venlo region in the Netherlands, which is on the border of Germany. This region is currently

undergoing a number of major developments. Staging Floriade will act as a catalyst to these developments.

The expo will be held at the centre of Greenport Venlo [Greenport is the term for an area dedicated to economic networks of companies, organisations and institutes involved in horticulture].

The expo is held every decade in a different Dutch region. It launched in 1960 and this is the sixth Floriade we've hosted.

## What will the content be?

One important element of the expo is to show what energy is doing for horticulture as well as for people at home. For example, until now glass houses have used a lot of energy, but now they're bringing energy to homes. We'll demonstrate how a glass house can give energy to up to 300 homes. The expo will also look at how we handle sustainability around the world. It's absolutely unnecessary to be in competition with other countries, we should all work together to ensure horticulture is sustainable.

Education is another big theme for the expo. Some people think fruit and vegetables come from the supermarket. We'll demonstrate where they actually come

from and how they can get fresh food from places other than the supermarket. Visitors can also learn how to cook fresh food in our cooking theatre.

All the pavilions will offer different experiences including dark rides, movies and shows. The Dutch pavilion will showcase innovation, such as growing tomatoes in any shape you want! We have a pallet of colours with different themes and attractions in different areas. Vincent Van Gogh worked with all kinds of colours and we're using his art as an inspiration.

## What is Floriade's history?

Holland is world famous for flowers – it's our most important export. In 1960 there was a big fair in Holland, which was so successful it was made into an expo. The fair in 1960 celebrated the 400-year anniversary of tulips being brought from Turkey to Holland by horse, by recreating that journey. We're considering replicating that two-month journey once again in 2012.

## How's the expo changed since 1960?

Sustainability is now a huge concern. Using sustainable building materials is a necessity. Then, when the park's operating,



The expo is taking place in the Venlo region of the Netherlands and will feature 90 Dutch exhibitors and 25 exhibitors from around the world



everything that can be sustainable will be – the way we prepare food, get rid of rubbish, source water and the merchandise we sell.

Also, this is the first time we've known what's going to happen to the venue after the expo. Floriade 2012 will be leaving the region a sustainable legacy – Venlo GreenPark. Venlo GreenPark will eventually be a high-end business park with offices and buildings dedicated to innovation, sustainability and education set in the stunning surroundings of the Floriade site.

#### Who is the target audience?

It's a nice, fun day out for families. We're on the German border so we get visitors from Germany and Holland. People from further away will come for a few days and visit Düsseldorf or Amsterdam. We'll also get a lot of business people attending conferences and congresses.

#### How do you plan the expo?

It takes six years to arrange. We conduct market research so we know what people want and expect of Floriade. Next we decide how the site will look; it must be a relaxing park that people can walk around easily. Then we put together the market-

ing and business plans and fiscal analysis. The site's almost ready now and representatives will start arriving later this year to build their pavilions.

#### Who do you work with?

One of our most important partners is Bob Rogers at BRC Imagination Arts, who has done the design and architecture. The actual park has been designed by a Dutch architect, John Boon. On the site, we have 25 people at the office and 25 people working every day at the venue, all of whom have contracts for up to five years. During Floriade we will have a summer school for students to work here for one year. They'll be trained in hospitality and gain experience of working in entertainment parks and hotels.

#### How will you make the subject matter interesting to children?

Floriade Kids is a learning programme about horticulture and sustainability. More than 200 schools are following this programme in Germany and Holland.

#### What are the main challenges?

Firstly, to get countries with interesting pavilions to commit to the expo, then to get

**Bob Rogers at BRC Imagination Arts took care of the design and architecture, while John Boon designed the actual park**

them to build their pavilion in keeping with our guidelines. In the past, people would say: "We want a pavilion and we're going to do X." Now, we say: "Hang on, we're producing the show and need to know what's happening on our site." They have to stick to our theme and do it in a sustainable way. It's taken a lot of time to get this sorted out, but it's working very well now.

#### How have expos evolved?

Expos are more than a collection of pavilions, merchandise and restaurants – they're about feelings. We need to learn from amusement parks because they need to entertain. Expos are changing and we've tried to do this in new ways by getting visitors emotionally involved, not just by giving them something to look at.

#### What do you want from Floriade?

I'm hoping for a very good cultural offer. There should be an international programme, both for other countries and for this part of Holland. I also want people to enjoy themselves – we're not selling tickets, we're selling memories. I want people to leave the park with a happy feeling.

#### Are you a keen gardener?

No. Unfortunately I don't have any time for that, but I have very good people who know a lot about gardening. ●

## ABOUT FLORIAD 2012

**DURATION:** April – October 2012

**SIZE:** 66 hectares, of which 40 hectares is exhibition space

**THEME:** 'Be part of the theatre in nature, get closer to the quality of life!' The expo's sub themes are: Relax & heal, Green Engine,

**Website:** [www.floriade.nl](http://www.floriade.nl)

Education & Innovation, Environment and World Show Stage

**VISITORS:** At least two million are expected with up to 35,000 people on peak days

**EXHIBITORS:** 25 international exhibitors and 90 Dutch exhibitors

# SECOND LIFE

When a visitor attraction closes, it might be the end of an era but it's not necessarily the end of the story. Rhianon Howells looks at four very different sites that are all experiencing a new lease of life under fresh management

## PLEASE TOUCH MUSEUM

OLD ATTRACTION MIXED-USE EXHIBITION, PERFORMANCE AND RECREATION SPACE  
NEW ATTRACTION PLEASE TOUCH MUSEUM AT MEMORIAL HALL,  
OPENED OCTOBER 2008

When the Please Touch Museum opened in 2008 at Memorial Hall, Philadelphia, it signalled the coming together of one of the US city's best-loved family attractions with one of its best-loved landmarks.

Memorial Hall in Fairmount Park was built for the Centennial Exhibition (World's Fair) of 1876. After serving as an art gallery during the fair, the building became the first Philadelphia Museum of Art, remaining open for small exhibitions when that museum moved in 1928. In the 1950s, part of the building was turned into a recreation centre, although it was also used for orchestral performances and other events.

But by the year 2000, the deterioration of the building led the Fairmount Park Commission to seek a new tenant to restore it. For Please Touch Museum – a successful, non-profit children's attraction opened in 1976 – it was a perfect opportunity to develop and expand. "We were much too crowded at our previous location," says president and CEO Laura Foster. "Memorial Hall gave us the space we needed, we were able to have parking here, the building is absolutely beautiful and we loved the setting."

The fact the 156,000sq ft (15,000sq m) site had started life as a museum was another draw. "We were returning a national historic landmark to its original use [and] it was very exciting to be able to talk about it in that way to prospective funders," says Foster.

Please Touch invested \$76m (£49.2m, €59.8m) to renovate the building and create new exhibits, as only a few items were moved. "The building wasn't in fabulous



"We've returned a national historic landmark to its original use"

The museum is aimed at young families and takes a play-based approach to learning

shape and we had to figure out how to lay out the exhibits and manage our visitor flow," says Foster. "But it wasn't a difficult building to work with; there are great ceiling heights here which is wonderful for some of our exhibits as well as for our musical and theatrical programming." The most significant addition was a large annex to house the museum's historic carousel.

Aimed at young families (most visitors come with a child aged two to five), Please Touch takes a play-based approach to teaching and learning. One exhibit is themed around transportation, with a real bus and a play garage; there's a super-

market and shoe store; a medical centre; an *Alice in Wonderland* exhibition, and a large water-play area.

Parents and children love it, says Foster, but the new site is also attracting a whole new market: "A lot of adults want to see the building and learn about the Centennial, so we're now offering 'grown-up' tours too."

For both old attraction and new tenant, the project has been an unquestionable success. In 2009, the Please Touch Museum attracted 687,000 visitors, compared with 180,000 a year at its previous site. Memorial Hall, meanwhile, has been given back its *raison d'être*.

## BEATLEMANIA

OLD ATTRACTION THE MUSEUM OF EROTIC ART, CLOSED AUTUMN 2007  
NEW ATTRACTION BEATLEMANIA, OPENED 29 MAY 2009

Opened in 1992 by German property tycoon Claus Becker, Hamburg's Erotic Art Museum started life on a back street of St Pauli – the city's red-light district – before moving to the Reeperbahn, the area's most famous (or infamous) street. Housed in a former hat factory, the museum offered five floors of sexual art, from 18th-century Japanese and French erotic prints to work by Otto Dix and Jean Cocteau.

Despite attracting 80,000 visitors a year in its heyday, the museum closed in 2007. But it wasn't unoccupied for long. In May last year, the site reopened as a museum dedicated to Hamburg's most famous visitors: the Beatles.

The new attraction is operated by FKP Ausstellungen und Betriebsgesellschaft, a limited company owned by Folbert Koopmans, founder of one of Germany's largest booking and concert agencies. According to the project's manager, Ulrike Saltern, the company had no hesitation in snapping up the site. "We chose the venue because it's located among all the places the Beatles lived and played during their time in Hamburg," she says. "And there are hundreds of thousands of visitors on the Reeperbahn every year. There's no special story to tell: we saw it, loved it, leased it!"

However, the building required a considerable amount of work to bring it up to modern museum standards, says Saltern: "We had to make a lot of adjustments for health and safety and fire prevention, and we also had to install air conditioning, all of which delayed the opening." The original idea also had to be adapted from a one-level concept to one that would work over five floors. Overall investment was €2.5m (£2.2m 3.4m).

The resulting 1,300sq m (14,000sq ft) exhibition space, split into 11 rooms, documents the story of the band's rise to stardom, including original artefacts. Exhibits include a full-size reproduction of the Reeperbahn in the 1960s and a replica backstage area of the Old Star Club, where the band played. There's a manager's office containing their first recording contract with German producer Bert Kaempfert, and an Abbey Road

"The Beatles are still one of the most popular bands in the world"



The 14,000sq ft Beatlemania Museum, located on Hamburg's infamous Reeperbahn, has 11 rooms (with original artefacts) that tell the story of the Fab Four's meteoric rise to fame

Studios attraction, where visitors can sing and record songs.

The Bravo Blitz Tour celebrates the outbreak of Beatlemania with a 360-degree film that puts visitors at the centre of a 1,000-strong screaming crowd, while in another room, they can become part of the famous *Sgt Pepper...* album cover. There's also a café, store and fish and chip shop, all of which can be accessed without a ticket, while the Star Lounge is available for live events and private hire.

Although Saltern doesn't claim to know exactly why the previous museum closed, she speculates: "People on the Reeperbahn are [probably] more interested in real erotic [sights]

than in erotic art." Beatlemania, in contrast, is offering something that is completely different from the district's other attractions while also having universal appeal. "The Beatles are still one of the most popular bands in the world," she says.





The building's interior has had a few walls knocked down to allow for a newly designed route

## THE NATIONAL BREWERY CENTRE

OLD ATTRACTION THE COORS VISITOR CENTRE & MUSEUM, CLOSED 30 JUNE 2008  
 NEW ATTRACTION THE NATIONAL BREWERY CENTRE, OPENING 1 MAY, 2010

**T**wenty-two months after closing, The Coors Visitor Centre and Museum in Burton-on-Trent will reopen this May under a new name and new management.

Opened by brewing company Bass in 1977, this attraction, originally known as the Bass Museum, celebrated the national and local brewing industry. In 2002, Bass was acquired by Coors – now Molson Coors – the second largest brewing company in the UK, which took over the museum.

Attractions included shire horses, vintage vehicles, brewing-related artefacts and a steam engine, as well as retail, F&B, conferencing and banqueting.

By 2008, however, visitor numbers had fallen and the site was running at what the CEO of new operator Planning Solutions,

John Lowther, describes as “a hefty operating loss”. Despite local opposition, Molson Coors decided to close and mothball the facility until a solution could be found.

“Ultimately, Molson Coors is an expert in brewing beers and it’s probably fair to say it didn’t have the necessary experience to run a modern visitor attraction profitably,” explains Lowther.

“In contrast, we’re experts in planning and operating attractions, and already have a local presence at Conkers in the National Forest. We’re well-placed to overhaul the Coors Visitor Centre, make it relevant for modern audiences and, most importantly, profitable.”

Clearly in agreement, Molson Coors has leased the site and exhibits to Planning

“Molson Coors is an expert in brewing beers; we’re experts in operating attractions”

Solutions for 25 years, and each partner is committing £200,000 (US\$302,500, €221,800) to the overhaul of the attraction, as well as £100,000 (\$151,200, €111,000) per annum towards its upkeep.

Part of the strategy is to broaden the appeal of the attraction to engage with people of all ages – particularly children. “We’re replacing plastic dummies with live performers in period costume who will interact with visitors,” says Lowther.

“We’re also introducing animatronics, holographics and multi-media technology to bring the story to life.

“We’ve redesigned the route, which has involved knocking down a few walls, and will be adding a tour of the on-site micro-brewery and a beer-tasting master class. Our bar and restaurant will offer a high-quality gastro-pub menu, with a specially developed ‘Beer Bites’ menu, matching a range of small dishes with different ales.

“We’re working hard to make sure families are better catered for but, equally, that everyone will find something to enjoy.”



The Bass No 9 engine has been at the museum since 1977

## LEGOLAND FLORIDA

OLD ATTRACTION CYPRESS GARDENS, FLORIDA, CLOSED SEPTEMBER 2009  
NEW ATTRACTION LEGOLAND FLORIDA, OPENING END OF 2011



Merlin Entertainments currently has four Legoland parks with three more in planning

Cypress Gardens, Florida's oldest theme park, was acquired last January by Merlin Entertainments – owners of the Legoland and Tussauds brands – after its previous operator declared it to be financially unviable.

The veteran family attraction, which includes a waterpark and botanical gardens, was opened in 1936 by entrepreneur Dick Pope. In 2007, Land South Adventures, a subsidiary of real estate company Land South Holdings, paid US\$16.8m (£11.1m, €12.30m) for the site. Yet despite investing heavily in its infrastructure – even closing for renovations

for several months – the operator admitted defeat in September 2009, blaming dwindling visitor numbers.

Merlin Entertainments, however, quickly identified the 145-acre site as the perfect location for its fifth Legoland park worldwide. "As far as we're concerned, Cypress Gardens has a proven track record, attracting more than one million visitors a year," says John Jakobsen, managing director of Legoland parks.

"The site has also enjoyed more than \$100m (£66m, €72.3m) of investment over the last few years, which means we can hit the ground running and have the park open in half the time we'd normally allow. Additionally, because the site has been a theme park for many years, a lot of the issues relating to planning have already been resolved."

But what makes him so confident the venture will be profitable given the previ-

ous operator's experience? "We believe it has lacked a powerful, compelling brand to deliver sustainable, commercial success; the Legoland brand will do this. Merlin

Entertainments is a major attraction operator with proven expertise in running theme parks – the last owners were property developers."

Although plans are still being finalised, Jakobsen confirms that the botanical gardens and waterpark will remain open, while other existing attractions may also be incorporated. New attractions will include the iconic Miniland – a Lego replica of the local region – found at every Legoland site.

When open, the new park will feature more than 50 rides, shows and attractions aimed at families with children aged two to 12. A confident Jakobsen says: "Our research in the area indicates a high recognition of the Legoland brand and a 90 per cent-plus intention to visit among families in our target market." ●

"The previous park lacked a powerful, compelling brand"



The park will feature more than 50 rides, shows and attractions, aimed at families with children aged two- to 12-years-old

# STAYING TREND



While the recession had an adverse affect on many leisure businesses, the theme park industry came out of it largely unscathed

Some theme parks thrived last year, thanks to the staycation trend, but others were not as fortunate. Deloitte LLP's Nigel Bland and Liz Smith detail how the industry performed during 2009 and what we can expect in 2010

It's easy to feel incredibly negative when looking back on 2009. Many economies went into recession and consumer confidence plummeted as unemployment levels rose. The retail and leisure sectors were particularly affected, with a number of high profile companies entering administration.

But in the UK, the recession wasn't all bad news, as a number of the trends caused by the economic downturn have had a positive effect. Primarily, 2009 was the year of the staycation – people choosing to holiday in the UK and take more day trips – albeit that their budgets were reduced. This, coupled with a weak pound driving growth in inbound tourism to the UK, means the number of people visiting UK theme parks has grown strongly over the last couple of years. In 2009, 13.8 million people visited theme parks in the UK; an increase of three per cent from 2008. In the UK, revenues grew to £315m (US\$480m, €359m) in 2009 compared to £308m (\$470m, €351m) in 2008. In real terms, revenues were flat, reflecting the fact that while people were visiting more, their spend on secondary items declined slightly.

Operators were able to maximise visits by continuing to invest in new rides and attractions and placing an increased emphasis on accommodation, thereby driving multi-day visits. This made 2009 a year of focusing on existing operations and cash generation.

## EUROPE

Merlin Entertainments outperformed the sector as a whole, continuing to go from strength to strength. In 2009, the company saw 38.5 million people visit its attractions, an increase of 9.7 per cent. Annual revenue increased by 16.1 per cent to £769m (\$1.2bn, €876) while EBITDA grew by 16.6 per cent to £238.6m (\$364m, €272m) in 2009. Merlin has also announced that it's considering building a third hotel at Alton Towers as part of its strategy to



Euro Disney saw attendance levels increase, but secondary spend decline. In fact, it witnessed record attendance levels in 2009



Cedar Fair was on the verge of a merger with Apollo Global Management, but it fell through

**WHILE MERLIN AND COMPAGNIE DES ALPES GO FROM STRENGTH TO STRENGTH, US THEME PARKS SEEM TO HAVE BEEN IMPACTED BY THE RECESSION, PARTICULARLY THE HIGHLY LEVERAGED OPERATORS**

reposition itself away from the teenage market and to encourage families to stay for longer.

A similar story is true for European theme park operators. Compagnie des Alpes – with its portfolio of theme parks, nature and animal parks and tourist attractions – saw strong attendances together with growth in revenues. Total visitors to its leisure parks increased by 2.6 per cent to 9.9 million in 2009.

The company achieved sales of €248m (£218m, \$332m) in 2009 compared with €234m (£206m, \$313.5m) in 2008, an increase of six per cent. Within these numbers, Parc Asterix saw its visitors increase by 1.2 per cent to just over 1.8 million. Revenues grew by 8.5 per cent, reaching €74.3m (£65.3m, \$99.5m). Only the firm's Dutch operations witnessed declining admissions and revenues.

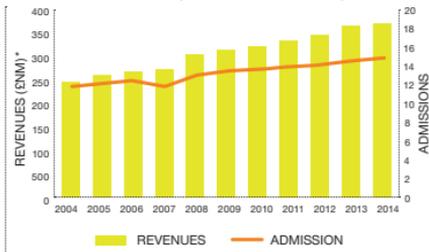
Euro Disney reported a similar story, with attendance levels increasing, but secondary spend declining. In fact, the company witnessed record attendance levels of 15.4 million with hotel occupancy levels of 87.3 per cent.

Targeted offers, leveraging the Disney brand and continual product innovation enabled Euro Disney to achieve this growth in visitor numbers, predominantly from the French and Belgian markets. In terms of secondary spends, both average spend per guest and average spend per room were down five per cent in 2009 compared to 2008. Overall revenues fell to €1.2m (£1m, \$1.6m) from €1.3m (£1.1m, \$1.7m) in 2008 – a decline of 7.1 per cent.

**THE US**

US theme parks, conversely, seem to have been impacted by the recession, particularly the highly leveraged operators.

**UK THEME PARKS MARKET, BY VOLUME AND VALUE, 2004 – 2014**



\* REVENUES ARE STATED AT CURRENT PRICES

SOURCE: MINTEL, 2010

Six Flags was highly leveraged following a refinancing in June 2007 and filed for bankruptcy under Chapter 11 in June 2009. As at the 31 December 2007, the company had total indebtedness of \$2.26 billion (£1.4bn, €1.7bn). This high level of indebtedness – combined with its ill-fated marketing alliance with Dubai Holdings and lower trading levels with both admissions and average spends per head falling – left the company struggling to make its interest repayments. Chapter 11 is allowing Six Flags to restructure itself and the company is hopeful of exiting Chapter 11 in April 2010.

Ohio theme park company Cedar Fair, which owns 11 amusement parks and seven waterparks across North America, is also highly leveraged with \$1.7b (\$1.1bn, €1.3bn) of debt.

In 2009, Cedar Fair saw net revenues decline to \$916.1m (£602m, €684.1m) from \$996.2m (£654.5m, €774m) in 2008, a fall of 8.7 per cent. Adjusted EBITDA fell by 15.7 per cent to \$299.9m (£197m, €224m) from \$355.9m (£234m, €266m) in 2008.

In December 2009, Cedar Fair entered into a definitive merger agreement with Apollo Global Management. The deal consisted of Apollo paying \$635m (£417.5m, €474m) for Cedar Fair's assets, as well as paying off the \$1.7bn (£1.1bn, €1.3bn) of debt making the deal worth \$2.4bn (£1.6bn, €1.8bn). The offer represented a 43 per cent premium over Cedar Fair's volume-weighted average closing unit price over the 30 days prior to the deal announcement. Bank funding totalling \$1.95bn (£1.3bn, €1.5bn) had been committed in support of the transaction through a syndicate of six banks.

However, on 7 April, the takeover was terminated as a result of insufficient investor support. Cedar Fair is to pay Apollo \$6.5m (£4.3m, €4.9m) for expenses incurred while the deal was under discussion. The agreement reportedly required two thirds of shareholder majority support to pass, and several significant stakeholders balked at the price Apollo was offering.

## THE FUTURE

So what does 2010 hold for the sector? Having weathered the storm well in 2009, many operators are likely to continue to focus predominately on existing operations and cash generation. This year will see the UK, US and European economies continue to slowly recover from the recession and consumer confidence should start to increase. Unemployment levels, however, will remain high and the British pound is likely to remain weak.

As in 2009, continual product development will remain a priority for operators in order to maximise visits and encourage visitors to return. This year is already showing signs of increased levels of transactional activity and investment in new parks. Merlin Entertainment's acquired Cypress Gardens and Splash Island Waterpark in Florida in January 2010 for an undisclosed amount.



US companies with high levels of debt, such as Cedar Fair and Six Flags suffered badly during last year's recession

**2010 WILL SEE ECONOMIES CONTINUE TO SLOWLY RECOVER FROM THE RECESSION AND CONSUMER CONFIDENCE SHOULD START TO INCREASE. UNEMPLOYMENT LEVELS, HOWEVER, WILL REMAIN HIGH**



If Six Flags can exit Chapter 11 and organise a more manageable debt structure, it could be on the road to recovery, say the experts

(Cypress Gardens was another US casualty of the recession and closed in September 2009.) Merlin has also been signed up by Blackpool Council to manage the redevelopment of Blackpool Tower. Merlin's float remains a very big option though it was postponed early in the year due to uncertainty in the market.

At the end of March 2010, Futuroscope's main shareholder announced it was looking for new investors, with Compagnie des Alpes reportedly interested in acquiring a 40 per cent stake.

In the US, the futures of both Six Flags and Cedar Fair are likely to be determined shortly. While Cedar Fair had seen a decline in performance in 2009, it's still a highly profitable company. With the correct debt structure, the company trading should recover. If Six Flags is able to exit Chapter 11 with a more manageable debt structure, it too should also be able to set itself on the road to recovery.

Overall, 2010 is already showing signs of being a strong year for theme park, waterpark and attractions operators. ●

*Nigel Bland, associate partner and Liz Smith, assistant director, Deloitte LLP*

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# THE VIRTUOUS CIRCLE

Repeat visits to attractions – both physical and virtual – enable operators to gather vital information. Blair Parkin and Mark Matthews of Visual Acuity look at the technology behind visitor management and information systems

**W**ide availability and commoditisation of electronic payment systems and RFID (radio frequency identification) ticketing for mass transportation systems is offering the world of visitor attractions a robust off-the-shelf tool kit of technologies.

The aim of these is to improve visitor experience, increase repeat visits and build membership databases and detailed profiles of their visitors. RFID technology and operating methodology is already widely used and accepted in today's transport and banking markets with smart technology such as the London Transport Oyster Card or the Barclaycard Freedom touch and pay system.

## TICKET TECHNOLOGY

With the technology available, some clients have started linking their website to their ticketing systems, issuing unique ID tickets and then using these tickets as a way for the visitor to interact with the exhibits and facility. Early adopters of this, initially using barcode, were the Cité des Sciences et Industrie, Paris, and the Natural History Museum in London, which used barcodes to link gallery and web experience. New build institutions such as the California Academy of Sciences in San Francisco have implemented the technology infrastructure for such an implementation that can leverage RFID. Many commercial waterparks in the Middle East are rolling out this kind

of technology interaction with their visitors. Ticketing technology firm suppliers Ticket Network and Gateway Ticketing Solutions are noting an increase in attractions wanting to link web-to-ticket and ticket-to-exhibits and back again post-visit via the internet.

The terminology we use to describe the picture is the 'Virtuous Circle'. This describes an operational philosophy for institutions that optimises buy-in from its user community and maximises repeat visits to a facility both physically and virtually, utilising the world wide web.

Rarely has there been a combination of proven technologies that give such a rapid return on their deployment. However, implementing such a system isn't simple – success relies on interdepartmental communication and cooperation in the user organisation. It also requires robust data protection protocol and policy so visitors will be prepared to provide information and build a bond of trust with the attraction. Additionally, the user organisation needs high quality data networks throughout the facility, something that's often lacking in museums, particularly those housed in a landmark or heritage building.

There are a large number of jigsaw pieces that must fit together to make a compelling picture for the future of public spaces, including museums, cultural centres, science centres, heritage attractions and many others.

## NEW WAY OF THINKING

The process requires a change of thinking from the traditional ways of operating these facilities, and requires infrastructure to be designed or added into the architecture of the building. In our experience, the two biggest hurdles to implementing such a system are the organisational change and the lack of a high quality data network.

The RFID ticket media can be a traditional credit card shape (pictured) or embedded in a wristband or other item



**THE 'VIRTUOUS CIRCLE' IS A PHILOSOPHY THAT OPTIMISES BUY-IN FROM USER COMMUNITIES AND MAXIMISES REPEAT VISITS TO A FACILITY**



Opportunities can be overlooked because the exhibition design, public program and web groups don't cooperate closely with operations and finance

## ■ NEW SEASON PASS SYSTEM LAUNCHED

### RADIO FREQUENCY IDENTIFICATION (RFID)

RFID is an automatic identification method, relying on storing and remotely retrieving data using devices called RFID tags or transponders. An RFID tag is an object that can be attached to or incorporated into a product, ticket or person for the purpose of identification using radio waves. Chip-based RFID tags contain silicon chips and antennas. For an attraction to implement a Virtuous Circle deployment, then its tickets and membership cards need to be RFID.

Then interactive kiosks, exhibits, touch tables and entrances and exits need to be equipped with an RFID reader that will augment the interaction by bringing the users preferences to the fore. Exhibits can be equipped with a labelled 'touch point' where the RFID cards can be touched to trigger personalised content and interactions.

The first challenge is that the operations team, the facilities people and the exhibit and design groups all need to agree on the implementation. In many cases, the opportunity is overlooked because the exhibition design, public program and web groups don't cooperate closely with operations and finance. The second is an information technology problem – an area we regularly see as being weak in the attractions world.

The principle is that we need to collect some very basic information about our visitors, or encourage them to want to give it. To do this we must issue every visitor with a unique identity in technology terms that can be recorded and tracked in a data-

base. This can be done in three ways: The issue of a CD or DVD with barcode cover, together with a paper ticket to every visitor; the issue of a unique barcode ticket with the website address printed on it; and the issue of an RFID enabled ticket with the web address printed on it.

The actual ticket media can be a traditional credit card shape or, in the case of RFID, the ticketing or membership ID can be embedded in a wristband.

### TRACKING VISITORS

The Visitor Management System (VMS) for attractions is an integrated ticketing and visitor tracking system. Ticketing embraces



membership cards and other forms of visitation. The ticketing database has the possibility for each visitor to enter personal information – such as age group, interests, language preferences and other fields of information determined by the marketing, narrative and creative design teams.

The aim of the Virtuous Circle is that every event the visitor is involved in leads on to one, two or more reasons to contact the facility, either in person or virtually.

Using more advanced technologies than barcodes, such as RFID, we can begin to introduce intelligent and interactive exhib-

its that will recognise the visitor and deliver content and information that's tailored to that person. For example, a different audio commentary might be given to a five-year-old child than to a senior citizen. Potentially, this extends to different visuals and different, more complex outcomes.

One particularly popular implementation is for the user to store their language preference in their profile. When they encounter an audio visual or interactive exhibit, touching their RFID on the exhibit will enable the audio or text to be replayed in the language they have chosen.

## SPATIAL BOOKMARKING

Extending this idea further, a person with an RFID ticket visiting the facility for the second or third time could follow the same physical route they took previously, but receive more advanced information on the next time so the experience is different on subsequent visits. This is the concept of spatial bookmarking.

This allows the visitor to track and record where they've been and recall any interactive information or outcomes of digital games and scenarios they have participated in during their visit. RFID ticket readers need to be deployed at the exhibits in the attraction and connected to the network and ticketing database, allowing the visitors to interact with the attraction in exciting and interesting ways. Taking this a step further, as the Virtuous Circle

## USING MORE ADVANCED TECHNOLOGIES, WE CAN INTRODUCE EXHIBITS THAT RECOGNISE THE VISITOR AND DELIVER TAILORED CONTENT

### TICKETING NEWS

#### DOLLYWOOD'S SPLASH COUNTRY

Dollywood's Splash Country will be welcoming guests for the 2010 season with new turn-free, touch-free entrance gates. The magnetic retractable gates aim to improve guest accessibility, streamline the park's front entrance operations and integrate seamlessly with its OmniTicket Network Ticketing system.

Splash Country will receive six new MPR-112 (Magnetic Pedestrian Retractable) gates this year, with more planned for its sister park, Dollywood Theme Park, in 2011. The new turnstiles

have earned the nickname 'batwings', due to the telescoping, retractable wings that open and close smoothly for each guest. The turnstiles offer improved accessibility for wheelchairs, strollers and ECVs. Each gate is gearless to reduce upkeep and maintenance.

Three of the new turnstiles will be configured for standard access, while the other three will be spaced wide enough to accommodate guests in wheelchairs and with strollers. All gates are custom-coloured to integrate with the park's main entrance theme. A light beam across each gate prevents the retractable wings from inadvertently closing on a person

or other obstruction. Each gate operates automatically without being touched, so operators do not need to worry about spreading germs in high-traffic areas like the main entrance.

#### ATTICA ZOO

Gateway Ticketing Systems is providing a new ticketing solution for the Attica Zoological Park, near Athens, Greece.

The zoo was looking for a system that could handle large numbers of visitors and the group bookings volume for area schools. With a new addition to the park opening later this year, the zoo also needed a resource management system to handle the capacity management and event ticketing requirements.

MTI Systems is providing Galaxy, a solution from Gateway Ticketing Systems, which delivers fast ticketing and admission control for enhanced guest experience, demographic tracking, and a collection of statistical and financial information.

#### ZSL LONDON ZOO

ZSL London Zoo has seen a 100 per cent increase in overall sales in its gift shop since installing a queue management solution from Tensator.

The installation included an in-queue merchandising system and an eQ™ single line queuing, media call forward system with outdoor LCD screens. This system helps direct visitors to specific kiosk points at the entrance and provides



London Zoo has seen a 100 per cent increase in sales



The new 'batwing' turnstiles at Dollywood Splash Country (see Ticketing News box out)

philosophy progresses, a facility can add weblinks and websites or email people who have expressed interest in a particular subject via their profile.

The possibilities are seemingly endless. Digital signage that's aware of who you are and where you've been already. Electronic payment within the attraction – using

the RFID ticket or membership card as a medium to store prepayment against that which can be used in the catering or retail facilities. Web tracking of your visit after you leave, with the attraction able to offer you new challenges based on your previous visit – giving an incentive to return. The repeat visitation. The Virtuous Circle. ●

a suite of management reporting tools enabling analysis of service efficiency and resource planning.

Julian Green, head of retail and admissions at the zoo, said: "Since incorporating queue management systems at the entrance and in the gift shop, waiting times have been reduced, meaning the customer experience is further enhanced.

"In the gift shop, not only have we seen an improvement in efficiency, but we have also noted that the merchandising options have increased sales as people wait to pay for their goods."

#### NEW SEASON PASS SYSTEM LAUNCHED

UK-based ticketing systems company RefTech Services has announced a new season pass system aimed at organisations needing passes that can be accurately and easily managed over several sites. The system is being launched as Member Reference and enables an operator to issue a season pass at one location and, within seconds, to have it valid at all other locations owned by the operator, no matter where those locations are. The system relies on the most basic of internet connections to synchronise data to a distributed database. It can be linked to the Microsoft CRM program to provide marketing functions and includes a suite of reports to show usage patterns.

Member Reference can be used across an attractions estate, even to

overseas locations, provided there's an internet connection at each point.

Once a season pass has been issued, it will be valid across all the attractions nominated by the operator. This means that the pass can be used immediately after issue, without the need for manual cross referencing.

Andy Povey, RefTech's business development manager, ticketing, says: "The point is that an individual can be issued with a season pass and they'll be able to use it immediately. There's no sending of forms to a central unit or time consuming updating of local systems.

"From the operator's point of view, they just issue the pass and it works across the whole estate. The system demonstrates the type of change that RefTech is bringing to the ticketing market – distributed, customer focused application of technology without the need for massively complex and expensive IT networks."



RefTech: Makes season passes easy

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**Good risk management alone will not always be enough to help protect your prize exhibits. Specialist insurers are happy to help**

can happen, in even the best run museums, was at the Fitzwilliam Museum in Cambridgeshire, where a visitor tripped over his shoelaces and fell, breaking three of a set of five 17th century Chinese vases.

Ensure that the right types and levels of security measures are in place – such as CCTV and locks on doors and display cabinets – and that visitors' access to items and different areas in the museum is carefully controlled. Specialist heritage and fine art insurers are always happy to help museums with expert advice on the display of items, installation of security measures, visitor access and handling of artefacts.

Good risk management alone, however, will not always be enough to protect a museum from the perils of life. It should always be coupled with the right type and level of insurance cover from a specialist insurer who understands the particular risks and can give the best advice.

It's often difficult to work out the values of the items in a museum collection. Here, specialist insurers are best placed to help decide which items need to be individually valued, which items can be grouped together for insurance purposes. They can also discuss how to go about agreeing values for your collection.

Besides exhibiting their own collections, museums nowadays often also loan out their own items and exhibit items on loan from other museums. This is where a specialist art-in-transit insurance cover becomes particularly important as you may not know or be able to influence the risk management processes of the lending or receiving museum.

Although not perhaps always an easy task, putting the right risk assessment processes and the right level of insurance cover in place should help anyone juggling the tasks of managing a museum to keep all the balls in the air at the same time. ●



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\*\* Of those brokers who named an insurer in the survey, the majority named Ecclesiastical as the best insurer for Heritage insurance. Research carried out by FWD, an independent market research company.

 **Ecclesiastical**

# MASS CATERING

Multimedia and audiovisual aids are being used in increasingly inventive ways to ensure all audiences are catered for at attractions. Kath Hudson looks at some of the latest applications

Parents no longer need to worry about bored children syndrome on cultural days out: the latest multimedia and audiovisual guides are being designed to really bring the subject to life and pique the interest of young minds. The wealth of information and entertainment provided means visitors can build their own tour, picking and choosing the information which interests them most.

At London's V&A Museum, Antenna Audio has created the UK's first in-gallery multimedia guide and iPhone App to accompany a temporary exhibition. The guides are available on iPod touch players, plus a downloadable application (or 'app') is on sale at the iTunes App Store, creating an additional revenue stream.

Accompanying 'Quilts 1700 to 2010', which takes visitors on a journey through three centuries of quilt-making in Britain, the guides use audio commentaries, video

clips, original interviews and photography to tell the stories of the quilts and the quilt making tradition. Although the subject matter might appeal to an older audience who may be nervous of the technology, the guides have been made very user-friendly and there's plenty of help at hand for those who are struggling.

The use of the iPod Touch and iPhone allows visitors to zoom in on high-res images for a detailed look at selected works. Since many of the quilts are being displayed in recreated domestic settings, visitors can't get close enough to the exhibits to see the intricate details, so this zoom feature is an important interpretation tool.

Antenna's marketing, press and communication manager, Matthew Vines, says: "There's a growing trend in the interpretation industry towards a multi-platform approach, with a view to reaching wider and more diverse audiences and, ultimately, to secure additional revenue

streams. If the app is produced at the same time as the onsite iPod tour, then the costs are minimised, as many of the assets can be repurposed for an online platform."

## BRINGING THE SUBJECT TO LIFE

After experiencing a large increase in visitors, Cardiff Castle in Wales charged Acoustiguide with the task of producing a tour that would interpret 2,000 years of history for all of its visitors.

Dominic Thurgood, Acoustiguide's marketing and multimedia coordinator, says: "As an extension of the site's guided tours, the audioguide was to cater for as many visitors as possible, whether they be young or old, local or from abroad, or if they are deaf or visually impaired."

Opus Click was used, with 15 tours: 10 adult tours in different languages; three children's tours in English, French and Welsh and two visually impaired tours in English and Welsh. A British Sign Language tour, in the Welsh dialect, was installed on Opus Touch to take advantage of the larger touchscreen.

Care was taken to make sure the content of the tours would resonate with the different audiences. "Both the children's tours and the visually impaired tours were written by scriptwriters with extensive experience in those particular fields," says Thurgood. "The children's tours use local actors for its English and Welsh versions and feature characters from various phases of the Castle's history, including a Roman soldier, a medieval archer and a Victorian maid, who bring to life the stories of its past. The VI tour elegantly blends historical commentary with descriptive representations of the site and its artefacts."

Similarly, the colourful history of Texas cowboy attractions, Stockyards Station and the Texas Trail of Fame in the US, is told with the help of BarZ Adventures' GPS Ranger system, installed last year.

The attractions receive visitors of all ages, from all around the world, and BarZ Adventures' brief was to make the experience relevant, interesting and fun to all of them. Using the voices of big names in



The V&A Museum in London is utilising the latest trend of iPhone applications to accompany its Quilts 1700 to 2010 exhibit



The GPS Ranger system holds a wealth of information, in this case about stockyards, but has extra functions such as trivia quizzes and Flash-based animations

the rodeo world, the GPS Ranger holds a wealth of information, including an explanation of how a stockyard works, and engages the visitor by giving historical accounts, such as when Bonnie and Clyde came to town. Learn More in-depth media segments and Then and Now photographs are included to appeal to the older audiences, while interactive trivia quizzes, using Flash-based animation, target younger ones. Visitors can trigger the information themselves, allowing them to create a bespoke tour. Information is also triggered automatically by GPS to explain their current location.

BarZ Adventures' marketing manager, Sunny Lozano, says: "This tour flexibility is a major benefit of the GPS Ranger model and something that live group tours can-

not deliver. Manually triggering media also allows a visitor to watch a segment on something they might not have gone by, so they can choose what's of interest to them."

The introduction of the handheld tour has also improved the flow of visitor traffic through Stockyards Station. When the tour was done by live guides, visitors had to watch an orientation video in a viewing room prior to the start of the tour, which slowed down the process of getting them out enjoying the sites.

#### CREATING THE WOW FACTOR

The multimedia exhibits and audiovisual guides have been used together to interest all ages at the new exhibition at The Science Museum in London. 1001 Inventions celebrates Muslim contributions



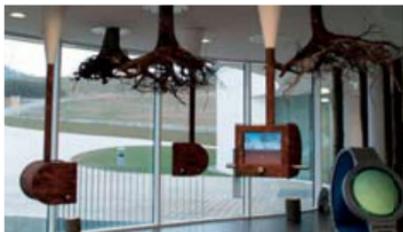
to science and technology in modern society, and the interpretation had to be able to reach a diverse audience, spanning all ages. Eventually, the exhibition is expected to visit 30 cities and it received 20,000 visitors in the first fortnight alone.

The exhibit is split into seven zones, each containing a summary AV screen and a handset, where visitors can listen to a set piece giving an overview of the section. Younger visitors are catered for with a feature film, projected onto a 20ft (6m)-screen, made by The Edge and starring Ben Kingsley, as well as various interactive games and exhibits. For example, in the home zone, a game uses a joystick to allow



London's Science Museum uses AV screens and handsets to engage visitors to its 1001 Inventions exhibition, which attracted 20,000 people in its first fortnight alone





**THE MAIN INTENTION IS NOT TO GIVE VISITORS HUNDREDS OF MESSAGES TO LEARN, BUT TO FOCUS ON A SMALL NUMBER OF KEY MESSAGES THAT ARE EASY TO KEEP**



Markus Beyr, whose firm designed the exhibits at Kellerwald Edersee (pictured), believes that most exhibitions are too ordinary

players to "walk" around a modern home, identifying objects that have been referred to in the exhibition.

Markus Beyr, managing director of Kraftwerk, thought outside the box when developing the multimedia exhibits for the German National Park, Kellerwald Edersee, to ensure they would interest audiences across the board.

"My intention was to create the unusual," says Beyr, who believes most exhibits are too ordinary to excite the visitor, and so spoke with scientists about the best way of engaging audiences. "We transformed things we found in the forest and our daily life into weird, interactive media exhibits, interweaved with a straight message, to cover the demand of the National Park's scientists," he says. "The main intention is not to give [visitors] hundreds of messages

to learn, but to focus on a small number of key messages that are easy to keep."

The landscape is shown from a bird's eye view, and visitors have a joystick they can use to zoom in, fly above the landscape and explore the region. A giant digital wristwatch is a time machine, where visitors can turn the knob to experience different periods and see what happened in the national park at that time.

The use of Dataton Watchout-powered displays at The Soccer Museum at the Pacaembu Stadium in Brazil, meant that a museum which had very few artefacts still had the wow factor, befitting the Brazilian love of the game. In one room, 25 football players appear to float in the air, projected on suspended screens.

There are 3D movies and 'virtual goal shoot and score', with sensors indicating the speed of the ball.

Electrosonic completed the AV installation for last year's revamp of Edinburgh Castle's Scotch Whisky Experience, which included synchronised lighting, sound and video for a dark ride and a "ghost host" who helps to explain what is going on. A

ride using whisky barrels, describing the production process of malt whisky, makes sure that young people are catered for with what is essentially an adult topic.

Each barrel is equipped with a multi-channel audio system augmented with scenic elements of the ride. There are 15 languages to choose from.

Two sensory rooms are also part of the experience and translations of the guide's presentation are available in 15 languages, via Acoustiguide wands. Video sequences on large screens and appropriate lighting scenes are used to bring excitement to the tour. The ghost host appears through a 'curtain of raindrops'.

UK company 7thSense and the Norwegian firm projectiondesign worked together last year to create the focal point of Chicago's Museum of Science and Industry's new exhibition, You! The Experience. The centrepiece is the 13ft (4.5m)-high Giant Heart, which allows visitors to see the internal workings of the organ. Four different movies can be chosen for the external projection surface, selected by a touchscreen console.

These projects illustrate how sophisticated interpretation is becoming, and means that exhibition designers and historical tours really can achieve the ambition of catering for everyone from eight to 80 and in many different languages. ●



At Kellerwald Edersee, visitors use a joystick on the monitors to zoom in and fly above the landscape to explore the region



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# HIGH SEAS

Waterpark designers and ride manufacturers are being kept on their toes by the ambitions of operators. Kath Hudson reports on some of the new developments

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**W**hile the rate of waterpark development has slowed in the US, with the recession putting the brakes on a number of proposed developments, the Asian market has seen growth, with world class waterparks being commissioned. The Middle East is also in on the act, with both the region's biggest waterpark and Bahrain's first waterpark opening their doors this year.

Adding indoor waterparks to larger developments, such as hotels or shopping malls, continues to be a trend, although the rate of US hotels opening waterpark resorts has slowed considerably. Only eight are planned to open in 2010, compared with 22 last year and a number of construction projects, originally due to open this year, have been delayed, mainly because of banks shutting off funding.

However, China, the emerging market, is very confident. Waterpark designer Forrec is currently working on China's largest indoor waterpark, Happy Magic

Watercube, at Olympic venue, the Beijing Watercube. This 11,000sq m (118,400sq ft) project is expected to open in the summer. Attractions are being provided by Proslide, WhiteWater West and Empex and include an Aqualoop, Tornado, RideHouse, tube and body slides, wave pool, lazy river and pools with a variety of waterplay elements. "The thematic environment is based on a truly magical underwater world, with colourful props throughout, and enhanced with LED 'moving' walls, theatrical lighting and live performance," says Forrec vice president, Anthony van Dam.

Forrec has two other Chinese waterparks on the drawing board, one in Beijing and one in Nanjing. The Beijing Longmenzhen Water Park, scheduled to open in 2011, is being designed as the first large-scale, world-class waterpark development in northern China.

The attraction area alone spans 14 hectares, and the project is part of a larger hotel, spa and commercial district, all being designed by Forrec.

"The park will have one of the largest mix of attractions in all of Asia and the client has recently finalised agreements with some of the top western vendors," says van Dam. "This includes more than 30 slides, along with water play attractions,

Empex offers a range of play structures for younger children including a Kiddie Lagoon (left)





FlowRider surfing simulators are popular with waterparks

pool, rivers, surfing machines, China's largest surfing wave pool and performance areas.

The Nanjing Longmenzhen Water Park is comparable to the Beijing park, with a similar product mix and design. It also includes a unique resort hotel and European-style spas and is expected to attract Nanjing residents and tourists from throughout the Yangtze river delta. "Although both will operate as standalone parks, the integrated resort hotels and spas will make these developments an attractive family vacation destination," says van Dam.



### MIDDLE EAST

The latest parks in the Middle East – Iceland and Wahoo – have also been designed with the brief that they have to be among the best in the world. Since Wahoo is the first waterpark in Bahrain – a country which has a non-swimming culture, no beaches and only two heated swimming pools – a small scale waterpark may have sufficed. But the developers, the same company which took indoor skiing to Dubai, aimed high. "The brief was not to just cross the line, but to smash through it," says general manager Damian Latham.

The US\$60m (£39m, €44m) waterpark opened as the hook of a shopping mall at the end of October. Being new to the market, it was important there was something for everyone. Aqua Leisure put together the rides and slides package – to include high thrill rides, as well as sedentary ones –

a wave pool and a lazy river. There's a tot's pool for the three and unders and a big rain fortress for three- to 12-year-olds.

The crown jewel of the park is the Point Break FlowRider, from Wave Loch, where people can have a go at flowriding, a sport similar to surfing.

Claiming to be the largest waterpark in the Middle East, the Iceland Waterpark opened in April, 80km north of Dubai, in Ras Al Khaimah. This represents the first phase of a 120-acre family destination, WOW RAK, which will also have an 85-unit shopping mall, a 180-bed hotel and a theme park, which is due to open in 2012.

A joint venture between the Polo Group, RAKIA and RAK Properties, this park is themed around penguins and the Arctic. As well as waterslides, it will have the world's largest artificially-made waterfall and raundance pool, a snorkelling pool, artificial wave pool and a kids' cove.

### NORTH AMERICA

Canada is also getting its largest waterpark to date this June, with the launch of Calypso Waterpark in Ontario. Sitting on 100 acres, this park has a number of

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signature attractions from WhiteWater West, some of which are being seen in Canada for the first time, including the Boomerango – which takes riders vertical as they shoot up a wall. SpaceBowl and SuperBowl are also making their debuts in Canada and WhiteWater's Rain Fortress will be the biggest in the country, boasting almost 200 features.

WhiteWater West's marketing manager, Julie Zakus, says the 10-strong research and development team is constantly working on new innovations, because all parks want to have "the next big thing."

The company's hottest product this year has been the world's first looping waterslide, the Aqualoop, which won IAAPA's best new product in the waterpark ride/attraction category. The first installation in North America is at Noah's Ark Waterpark in Wisconsin.

New Mexico now has its first hotel water park, with the launch earlier this year of a 30,000sq ft (2,800 sq m) indoor waterpark at the Radisson Hotel Albuquerque. The



**Calypso will be Canada's largest waterpark**

attraction includes a Flowrider, lazy river, slides and kids' pool.

After a record year for attendance in 2009, Legoland California is investing \$15m (£9.7m, E11m) in the attraction this year. Part of this investment will be on the world's first Lego-themed waterpark, set to launch in June. The 5.5-acre park is targeted at two- to 12-year-olds. Features will include a family raft slide, tube slides, and a waterplay area for toddlers with slides.

Project designer, Bill Vollbrecht, says it has been designed from a child's perspective. The centrepiece is a 45ft (14m) tower designed to immerse children in the world

of Lego. Other attractions include a lazy river, where guests get to build their own Lego rafts, several waterslides, tube slides and toddlers slides, a splash tower, a Duplo-zoo themed toddlers' water play area and two sandy beaches.

And with waterparks constantly looking for new ways to pump adrenalin, the ride designers are busy working on the next generation of their rides.

Empex Watertoys has developed Aquacircus, an interactive play structure for young children. Wave Loch is also in development of the next version of its FlowRider surf simulator, surf pools and flying reefs, which create 6ft (1.8m) barreling waves. WhiteWater West's latest product is the Megatube series of attractions – raft rides with a different twist. For example, the Viper drops riders into a tube and the Python "swallows" guests through open and enclosed sections of drops.

Clearly this continues to be an active and innovative market, with many exciting projects set to come on stream this year. ●

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## Interact with AnimaLive

AnimaLive's technology spans a wide range of bespoke live animation solutions, including creating a custom-made character for your attraction. Installation options include a ChatterBox Mini, an animated character that interacts live with an audience of any size, marketed as an ideal way to greet guests.

Other concepts include a ChatterBox Party Room, allowing interaction between guests and a live on-screen character, and a portable booth system called ChatterBox DVD.

fun-kit.net keyword  
**animalive**



## Waterproof televisions for wet environments

From Aquavision comes the Series4 range of waterproof televisions designed for the bathroom and other wet environments.

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## The Deep and charity Pump Aid join forces to help African villages

The Deep aquarium in Hull, UK, has teamed up with Thirsty Planet water and charity Pump Aid.

So far, staff and visitors to the attraction have helped to provide more than 38.5 million gallons of clean, disease-free water for some of the poorest people in Africa through sales of Thirsty Planet in The Deep's cafe and restaurant.

For every 500ml bottle of Thirsty Planet sold, a 5p donation is made to Pump Aid, which works with communities in Malawi and Zimbabwe to give access to sustainable supplies of uncontaminated water.



fun-kit.net keywords  
**waterbrands**



fun-kit.net keywords  
**heart of england**

## Savour the Flavour with HEFF vending

A vending machine has launched, aimed at introducing a healthy alternative to more traditional vending snacks, while focusing on regional food and drink.

The machine, called Savour the Flavour, is the brainchild of the Heart of England Fine Foods company (HEFF) – a regional food group for the West Midlands that represents local producers. Outlets can receive a branded machine if they commit to stocking it with food and drink from the West Midlands.

## New theme park design software is released

A new piece of software has been released to help designers and architects develop theme park projects.

ArtCAM 2010, by Birmingham-based manufacturer Delcam, allows designers to scan in miniature 3D sculptures – which can then be scaled up or down – or work in a more conventional 2D computer-assisted design (CAD) programme, which can then be imported into ArtCAM. Further embellishments or detail can then be added to the model using the programme's sculpting tools.

ArtCAM also has a 3D pdf viewer, which embeds a dynamically viewable model of the final design into a printable document, for client approval.

[fun-kit.net](http://www.fun-kit.net) keyword  
**delcam**



## Raytheon creates The Sum of all Thrills

Defence contractor Raytheon has sponsored a new ride within Walt Disney's new Innovations Pavilion in Epcot, Florida, US.

Called *The Sum of all Thrills*, the roller coaster simulator shows children how maths and engineering make things they care about happen.

Guests programme their experience via a touchscreen. They choose to ride a virtual rollercoaster, bobsled or jet and pick inversions, corkscrews or steep hills. The content determines the ride's speed. The information is stored on a magnetic strip, which is swiped at the launch station.

[fun-kit.net](http://www.fun-kit.net) keywords  
**walt disney**

## Kimberly-Clark takes control of hand drying

Supplier of hygiene products Kimberly-Clark Professional has launched a new campaign focusing on different hand drying facilities and the impact they can have on the efficient running of washrooms in leisure facilities.

Called 'Take Control of Poor Hand Drying', the initiative is primarily intended to alert managers of high-traffic sites such as theme



parks, stadiums, airports and theatres to the benefits of paper towels in their washroom and toilet areas.

[fun-kit.net](http://www.fun-kit.net) keywords  
**kimberly-clark**



[fun-kit.net](http://www.fun-kit.net) keywords  
**projection studio**

## The Projection Studio launches

The London, UK-based projection artist and designer Ross Ashton has launched a new creative venture.

Called The Projection Studio, it will be dedicated to the specialist art of large format video and PIGI projection, which Ashton has built a long and varied career upon.

The studio is intended to establish Ashton as an independent but flexible creative force, able to work on any projects with hardware supplied by any company as well as undertake consultancy work around the globe.

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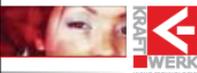
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Double, double, toil and trouble, something wicked this way comes... well, actually she seems quite nice. Kathleen Whyman meets Fiona Robertson, the Witch of Wookey Hole

## BEWITCHED

Fiona Robertson, The Witch of Wookey, Wookey Hole Caves, Somerset, UK

### What are your witching duties?

In the morning I meet and greet visitors at the entrance, then at lunchtime I go into the caves and go round with the tour guides. I also appear in two circus shows at 1pm and 3pm where I thank the performers. Generally I'm walking around talking to the guests, making sure they know where they're going and having a good time. I work weekends and school holidays plus any press or promo events. I also work extra hours at Halloween, my busiest time of the year.

### Why did the role appeal to you?

I'm Somerset-born and bred so have grown up coming to the caves and hearing about the legend of the witch. The legend says that many years ago, a witch lived in the caves with her goats. The locals blamed her for disease, milk going rancid and crop failure. They got the Abbot of Glastonbury to come down and exorcise her. He blessed some water and threw it over her and she turned to stone. You can see this stone in the cave. I'm an actress and played a witch in a play last year. Having enjoyed that so much, I thought why not do it full-time.

### Why did you get the role?

I'm a green witch and there weren't many green witches at the audition. I wrote a one-minute monologue to perform from the point of the view of the witch in the legend. I'm different to previous witches as I'm a friendly witch, but my cackle's pretty good!

### What's your performance?

Many younger children are so frightened of the witch that they don't want to go into the caves. I try and make it fun for them so they do go in. I'm usually friendly but sometimes I cackle and sneak up on peo-

ple. I go backwards around the mirror maze which causes a few jumps. When I accompany the tour guides I do a few bits to bring the tour to life more.

### What's your costume?

I have very bright stripy socks, a long black dress with orange sleeves and cobwebs on and the standard pointy hat. I have two spiders - one on the top of my hat and one that sits on my tummy. I also carry a broomstick around. My green make-up takes about 20 minutes to put on, but a lot longer to take off!

### What are the highs and lows?

The main high is actually being the Witch of Wookey. It's great being able to enjoy myself so much at work. One of the lows is sleeping in the cave. Or it would be if I really had to do it - we tell people I do. Walking around outside gets chilly in the winter - witches don't tend to wear coats. As I'm green, I'd melt if it rains, so I have to pick my time outside carefully.

### What's it like working in the caves?

Inside it's 11 degrees Celsius all year round, so in the winter it's quite warm compared to outside and in the summer it's pleasantly cool. I get dripped on occasionally, but the caves are so beautiful I don't mind.

### How do people react when you tell them?

My 19-year-old brother is very embarrassed. Most people think it's fantastic and a good opportunity. My mum likes to boast about it.

### What does it mean to you?

It's a great opportunity to add another character to my portfolio. It's really nice to talk to people and make their day special. ●



**ABOUT WOOKEY HOLE CAVES**  
Estimated to be 50,000 years old, Wookey Hole Caves have been home to ice age animals, prehistoric man and Celts 2,000 years ago, until the Romans arrived. Now these caves, located in Somerset, UK, are a historical treasure inhabited by bats, spiders, frogs, eels - and, of course, the Witch of Wookey. The caves are now a visitor attraction with a light show, tours, a museum, a 19th century paper mill plus a theatre with a pirate circus show.

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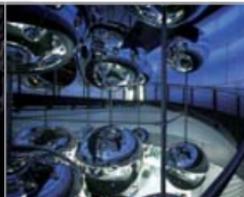
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