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VOL.17 Q1 2012

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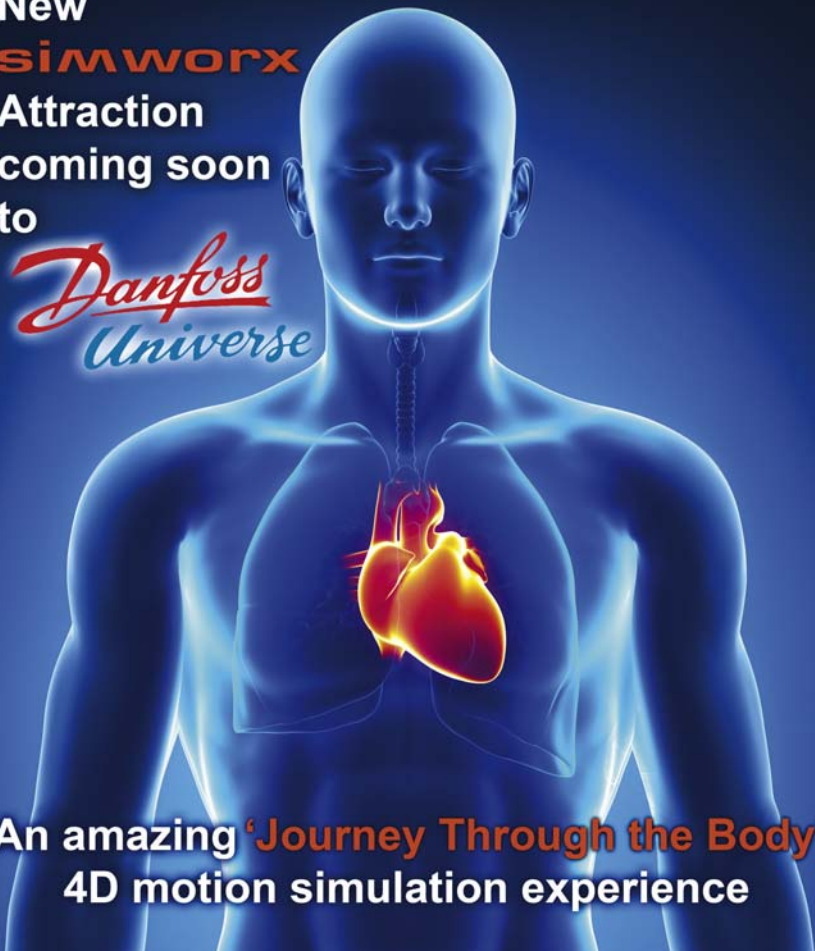
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Nick Varney, Roland Mack,
Al Weber Jr, Darrell Metzger
and Michael Jolly reflect on
and predict industry changes

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ON THE COVER:
Legoland Florida p38

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ATTRactions MANAGEMENT

EDITOR'S LETTER

ASIAN ORLANDO

A very warm welcome to this 15th anniversary edition of *Attractions Management* magazine, and on behalf of the team here, a huge thank you to all the readers, advertisers and writers who've supported us to create the *Attractions Management* community which – 15 years on – now spans the globe.

To mark the occasion we talk to some of the thought leaders in the industry (page 24) about how the sector's developing. We hope you enjoy the debate and that you'll let us have your comments for publication – either on our blog (blog.attractionsmanagement.com) or via email.

One thing all our forecasters agree on is the growing importance of the Asian market in terms of the opportunities it offers for development. In the time we've been publishing *Attractions Management*, we've seen the ebb and flow of development across the world from the US to Europe, to Asia and back again. Now it appears we're on the verge of a new development boom in the East, as a number of largely undeveloped Asian nations embrace the visitor attractions market and the industry looks for new outlets for its energies. One such example is Malaysia, where the development of the visitor attractions market is hotting up.

A plan was conceived to invest in Malaysia and partner with investors and operators to develop the 50k radius around Johor and Singapore as no less than as 'Asian Orlando'

When the government of Malaysia analysed its tourism balance of payments in 2007, as part of a piece of research to assess opportunities for economic development, it identified visitor attractions, spas and resorts – as potential drivers of growth.

The outcomes of the research formed the basis of an Economic Transformation Programme. Neighbouring Singapore was identified as part ally, part competitor and a plan was conceived to invest in Malaysia and partner with investors and operators to develop the 50k radius around Johor and Singapore as no less than an 'Asian Orlando'.

A new company, Themed Attractions, was set up to drive the initiative and on page 20 we talk to its COO, Steve Peet: "Our focus is on creating an holistic tourism model," he told us. "We want to build a theme park destination with critical mass – a tourism hub in South East Asia that gives people another reason to visit this area."

The company is fostering close links between resort/spa development and attractions. Peet says: "The challenge is making sure the...attraction and hotel understand the other is an asset, which will both optimise stays and increase numbers."

Being recognised in this context by governments as a wealth generator shows just how far the industry has come, with the next generation of developments having the advantage of learning from all that has gone before when it comes to integration.

Liz Terry, editor, twitter: @elizterry



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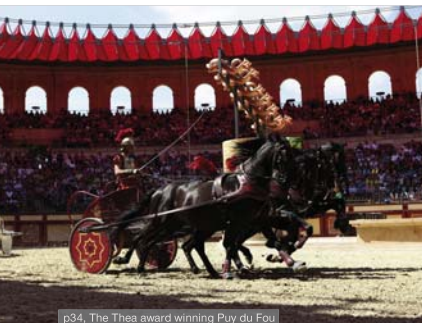


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IN THIS ISSUE



p34, The Thea award winning Puy du Fou



p44, The latest thinking on science centre design



p22, Steve Peet on Malaysia



p52, Exploring Adventure World Warsaw

ISSUE 1 2012

- 5 Editor's letter
- 8 Science centre news
- 10 Waterpark news
- 12 Zoo news
- 14 Theme park news
- 17 Museum news
- 18 Heritage news
- 19 Gallery news

20 Profile:

Steve Peet

The new COO of Themed Attractions explains how he'll be using his experience to help the attractions industry in Malaysia become a sector worthy of international attention

24 Industry opinion: Changing times

Nick Varney, Roland Mack, Al Weber Jr, Darrell Metzger and Michael Jolly tell us what's changed in the past 15 years and what they predict for the next 15

28 Top Team: National Museum of Scotland

Returning to its original decor and the Victorian ideal of showcasing the whole world under one roof is the result of this £70m, 15-year development project

34 Project review: French revolution

BRC's Bart Dohmen takes delight in the spectacular shows performed at theme park Puy du Fou, which will receive the Thea Classic Award in March

38 Mystery shopper: Legoland Florida

We look at Merlin Entertainment's fifth Legoland Park which opened in October on the former Cypress Gardens site

42 Project review: War heroes

Nick Farmer indulges his love of aero-planes at Flight of Fantasy in Florida

44 Science centre design: Exact science

We find out what operators need to consider when designing a science centre

50 Analysis: Time is money

Alan Love analyses the impact of extending visits on increasing revenue



p66, Engaging audio guides and apps



p28, Talking with the National Museum of Scotland's top team



p56, Some of this year's 3D/4D releases

52 Project preview: **Adventure World Warsaw**

Work begins on Poland's first destination theme park this spring

54 Awards **Winning stories**

The winners of the Thea Awards, which celebrate excellence in story telling

57 3D/4D: **New year resolutions**

Conservation, history and pure entertainment are among the content of this year's newest 3D/4D offers

60 Expo: **Plant Life**

Sky-Skan's Glenn Smith describes the work he's doing for Floriade 2012

63 Waterparks: **Culture Club**

Stephen Galbraith advises on waterpark culture in Asia and the Middle East

66 Audioguides **Apply here**

A round-up of some of the latest audioguides and apps available to the industry

72 fun-kit.net **Focus on special effects**

New special effects on the market

74 Product focus: **FUN-KIT**

A selection of the latest products

76 **Buyers' guide**

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BUYERS' GUIDE:

For suppliers of products and services in the worldwide attractions industry, turn to page 76

A new approach to science education

MAYA HALEVY

The way science is taught in schools is a growing focus at the national, European and international levels. Why? Because evidence shows that science subjects are not capturing young peoples' interest. This raises serious concerns for how a future Europe will fare in the knowledge-based economy.

Twenty-six institutions from 12 countries are tackling this issue head-on under the new European Commission FP7 project, Engineer, which will introduce engineering content and educational approaches to European primary schools. The three-year project is coordinated by Bloomfield Science Museum Jerusalem in Israel. The



"The Engineer project will be a significant step forward in advocating collaborations"

project is based on a successful American "Engineering is Elementary" program developed by the Museum of Science in Boston, Massachusetts, and has been running for seven successful years.

An estimated 27,000 children will have the chance to approach scientific disciplines through the problem solving and planning lens of engineering. They will also learn about artificially-made artifacts relevant to their daily lives.

Ten different engineering challenges – which will incorporate team work and be based on issues relevant to children and society – from 10 engineering disciplines will be developed and made available in 10 languages on the project's website.

Engineer will involve extensive training of about 1,000 teachers. The project will be a significant step forward in advocating the benefits of formal-informal collaborations – particularly in learning strategies for science and technology – to ministries of education in Engineer's 10 participating countries.

Maya Halevy, director, Bloomfield Science Museum Jerusalem, Israel

US\$10m boost for Miami Science

Miami Science Museum (MSM) has received US\$10m (£6.5m, €7.8m) challenge grant from the Knight Foundation towards its new building in downtown Miami, US.

The funding will be used to help promote science education but will have to be matched with an additional US\$20m (£12.9m, €15.6m) in a bid to encourage further community backing. It is hoped that the Knight Foundation's contribution will engage local residents in exploring science, technology and the environment, along with thousands of Miami students.

The gift takes MSM further towards its fundraising aim of US\$100m (£64.6m, €78.1m) for the new Patricia and Phillip Frost Museum of Science, which is to open in early 2015. Designed by Grimshaw Architects, the 250,000sq ft (23,226sq m) complex will be



The new building has been designed by UK-based Grimshaw Architects

structured around a landscaped indoor and outdoor "living core of terrestrial space".

A groundbreaking ceremony is due to mark the start of construction work on 24 February, with a 600,000gal (2.3 million l) aquarium; a full-dome 3D planetarium; hands-on exhibits planned.

March opening for Taguig's Mind Museum

The Mind Museum, the Philippines' first "world-class" science-based attraction which is being developed in Taguig, is scheduled to open its doors to the public in March 2012 (for more see p46).

Ed Calma of Lor Calma and Partners has designed the new building, with its futuristic and organic appearance inspired by cell growth and molecular structures.

When complete, the total covered floor space of the Mind Museum will span nearly 7,600sq m (81,806sq ft), with interior exhibition areas covering 3,560sq m (38,320sq ft).

The museum will offer five galleries across two levels, including The Story of the Universe; The Story of the Earth; The Story



The Mind Museum will offer five galleries across two levels

of Life; and The Story of the Atom. The Story of Technology completes the line-up of galleries at the attraction, which will offer more than 250 interactive "minds-on" and "hands-on" experiences to visitors.

Science Museum to offer 3D face scanning

Visitors to the Science Museum in London, UK are being given the opportunity to volunteer to have their faces photographed with a 3D camera as part of a new installation.

Me in 3D forms part of the attraction's ongoing Live Science programme, which will allow

visitors to participate in real experiments by visiting scientists in the Wellcome Wing.

Photographs will be taken using the latest 3D technology and will form a database of facial images, which will then be used by researchers to study patterns in face shape.

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Waterpark News

Optimistic outlook for 2012 season

ALEATHA EZRA

One of the hot topics at the

World Waterpark Association's annual symposium last

October was the forecast for the 2012 season and whether or not the economic downturn has finally started to shift back toward a more optimistic outlook for leisure facilities, both in the US and in key regions throughout the world.

To offer attendees some insight on this area, the WWA welcomed keynote speaker, Peter Ricciuti, finance professor and assistant dean at the Freeman School of Business at Tulane University. Ricciuti shed light and perspective on where the financial markets are currently



"Many parks are planning major expansion for the 2012 seasons following a strong 2011"

and what forecasts look like for the next few years. "We're not going into a double dip recession," he said. "The next 12-18 months show favorable indicators for the leisure industry. The leisure industry is in the sweet spot," he said.

According to Ricciuti, the leisure market is in a unique position because "the amount of market growth and the price of gas is just where it needs to be to encourage discretionary spending on leisure activities and staycations."

Thanks in part to this economic shift and a strong 2011 season, many water leisure operators have announced plans for major expansion or attraction additions for the 2012 season. Reinvestment in parks shows that operators are feeling confident and that performance indicators show solid growth potential.

In addition, large new waterpark projects are scheduled to come online this year in China, Abu Dhabi, Thailand, the United States and many other regions.

Aleatha Ezra, membership manager, World Waterpark Association

US\$18m waterpark for Las Vegas

The new US\$18m (£11.5m, €13.5m) Splash Canyon Waterpark, a 25-acre (10-hectare) development in Las Vegas, US, is expected to open in May 2012.

Construction work has already commenced on-site, with the scheme led by a public-private partnership including SPB Partners; Clark County; and The Howard Hughes Corporation.

A large 'surfable' wave pool; a three-slide complex with multi-rider tube slides; a children's water playground; and a 1,000ft (305m) lazy river will comprise the first phase of the park.

A large slide complex with speed slides and a six-lane mat racer; a four-storey RainFortress playground; and private cabanas are also proposed in stage one of the development.

Meanwhile, a second phase will see Splash



The park will include a slide complex with speed slides and mat racer

Canyon expand to cover a 40-acre (16-hectare) area. Harvest Family Entertainment will operate the theme park.

SPB Partners principal Roger Bulloch said: "As third generation Las Vegas residents, my brother and business partner Scott and I have long recognised a hunger for wholesome family entertainment in our community."

Waterpark planned for Legoland Florida

Legoland Florida, the Merlin Entertainments-operated attraction which opened its doors for the first time in October (see *mystery shopper* on p38) has announced its first expansion plans.

A new Legoland Water Park is to be built as part of the project, which is due for completion by mid-2012 and will comprise a wave pool and a 1,000ft (305m) Build-A-Raft lazy river. Twin chasers will see friends ride tubes down an intertwining pair of 375ft (114m) enclosed waterslides, while Splash Out involves a 60ft (18m) drop down slides into water below.

Joker Soaker will provide an interactive playground with various lengths, heights and types of slides, while Duplo Safari will



The waterpark expansion was announced shortly after Legoland opened

provide a water play area designed for toddlers. The waterpark will join the other attractions including The Beginning at Legoland Florida, which spans 150 acres (60.7 hectares) at the former Cypress Gardens theme park site.

Indoor waterpark resort opens in Peurunka, Finland

A €12.4m (£10.2m, US\$15.7) resort boasting both a spa and indoor waterpark has opened in Peurunka, central Finland.

Kylpylähotelli ja Kuntoutus Peurunka targets families and its space-themed indoor waterpark includes the longest waterslide in

Scandinavia (at 130m/426ft), a range of water-based "fun stations", a 100m (328ft) lazy river, swimming pools and a range of saunas - including Finnish, steam and infrared.

The resort has a 200-bedroom hotel and also offers accommodation in luxury cottages.



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Update on AZA activities

TIM LEWTHWAITE

Association of Zoos and Aquariums (AZA)-accredited institutions coordinate, participate in, or support conservation projects.



These involve conducting field work and research dedicated to the protection of species in the wild, recovering imperiled species and creating assurance populations, reintroducing rescued and rehabilitated animals and increasing conservation advocacy, action, capacity and fundraising.

In 2010, AZA accredited institutions invested \$124m (£79.6m, €96.7m) in field conservation projects around the world. AZA also funds conservation work through its Conservation Endowment Fund, which

"AZA's conservation fund has provided US\$5m to 300 projects worldwide in the past 20 years"

has provided more than US\$5m (£3.2m, €3.85m) to 300 projects worldwide during the past 20 years.

In 2011, AZA formed a partnership with the National Geographic Society (NGS), which includes an AZA landing page on the NGS' Global Action Atlas to highlight the local, national, and international conservation projects with which AZA-accredited institutions are involved. The Global Action Atlas is a digital interactive map that displays conservation, climate change, culture, exploration, humanitarian, and energy projects. Each project is represented as an icon on a global map with links to a profile page detailing the specific project. Viewers can read project summaries, updates, and blogs, find media galleries and links to nearby or similar projects, and become involved by volunteering, advocating, or becoming a social media fan.

We've also launched our Explore blog (<http://wildexplorer.org>), where some of these conservation stories, along with news from zoos and aquariums are shared.

Tim Lewthwaite, publications manager

Merlin plans LLA takeover

UK-based attractions operator Merlin Entertainments Group has submitted a recommended takeover offer for its Asia-Pacific counterpart, Living and Leisure Australia Group (LLA).

Merlin, one of the world's largest attractions operator, has made a bid that values LLA at around AU\$140m (£90m, €107m, US\$139m) on an equity value basis.

LLA directors have backed the offer, which will continue the expansion of Merlin's existing Asia-Pacific operations subject to the approval of LLA security holders. Nine destinations are owned and operated by LLA through three divisions, which feature the Oceanis Group aquariums and the Australia Alpine Enterprises ski fields.

The Australia Treetop Adventures attractions are also part of LLA's portfolio, with the



LLA owns and operates the Oceanis Group of aquariums in Asia Pacific

deal set to follow Merlin's acquisition of Sydney Attractions Group last year.

Merlin chief executive officer Nick Varney said: "Completion of this deal, together with our existing ongoing development, would represent an important step in our growth strategy for the region."

EU funding boost for Dudley Zoo project

Redevelopment projects at Dudley Zoological Gardens and the Black Country Living Museum have been awarded a £4.5m (€5.4m, \$7m) grant from the European Regional Development Fund (ERDF).

The funding will pay for a new access and joint arrival area for visitors to the zoo, Black Country Living Museum and Dudley Canal Trust. The funding is the second successful bid for the zoo in recent months. In July 2011, the zoo secured a grant from the Heritage Lottery Fund to redevelop and preserve its collection of Tecton buildings, which were built in the 1930s and are thought to be the world's largest single collection.

Dudley Zoo chief executive, Peter Sudcock, said: "This funding shows just how important



The £4.5m grant is the second successful bid for the Zoo in recent months

the site and tourism are to the region. "The programme will create easier access from the motorway, which will relieve current traffic problems, transform a derelict site into a car park accessed from a brand new infrastructure and boost visitor numbers."

Assiniboine Park Zoo receives US\$5m donation

The Assiniboine Park Zoo in Winnipeg, Canada, has received a CA\$5m (£3.2m, €3.7) donation from the Richardson Foundation towards the Journey to Churchill exhibit - part of the US\$200m (£129m, €148m) redevelopment strategy for the attraction.

It is the largest private sector gift in the history of the park and will allow the beginning of phase II of the project, which focuses entirely on the redevelopment of the Zoo. The first phase incorporated the launch of the Qualico Family centre.

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Theme Park News

Harry goes to Hollywood: second Potter park planned

Warner Bros Entertainment and Universal Parks and Resorts (UPR) have announced plans to develop a new Harry Potter-themed adventure park at Universal Studios Hollywood, California, US.

It follows the success of the inaugural Wizarding World of Harry Potter, which launched at the Universal Orlando Resort in June 2010 and is now set for a "significant" expansion. The two companies said the new California attraction will be a fully-immersive environment which will bring the Harry Potter stories to life.



The coaster is named after German mythology

Europa-Park to launch new coaster and hotel in 2012

Europa-Park in Rust, Germany, will launch two new major additions to its offering in 2012 - a wooden roller coaster called Wodan and its fifth themed hotel offering more than 1,000 beds.

The theme park, which is owned by the Mack family and is one of Europe's largest with more than 4 million visits each year, will launch both new additions during the grand opening of the park on 31 March.

Wodan is a 3.4km-long wooden roller coaster that is 40m high and reaches speeds of 62mph. (See interview on p24.)

Dollywood to open water and snow park in Nashville

Dolly Parton, owner of Dollywood theme park in Tennessee, US, has teamed up with Gaylord Entertainment to operate a 114-acre family attraction in Nashville, US.

The first phase of the project, estimated to cost around US\$50m (£32m, €39m), will include a water and snow park. The attraction is scheduled to open in 2013 and will be located adjacent to the existing Opryland Resort, owned and operated by Gaylord.

The water and snow park will anchor the project which is set to be expanded in the future. The owners are hoping to attract 500,000 visitors in the first year.

\$250m share buyback for Six Flags

US-based theme park operator Six Flags Entertainment Corporation has announced a stock repurchase plan that allows the company to reacquire US\$250m (£195m, €161m) worth of its stock by 2015. The announcement comes just a year after the company announced its previous share buyback - a three-year, US\$60m (£47m, €39m) plan that has largely been completed already.

According to a spokesperson, the deal was made possible due to an upturn in the US visitor attractions market throughout 2011. In October 2011 Six Flags reported that third-quarter earnings for 2011 were up 44 per cent on 2010 levels.

Six Flags CEO Jim Reid-Anderson said: "Our board of directors remains extremely confident in the company's future capabilities



Six Flags currently operates 17 visitor attractions across the Americas

and, with the flexibility provided by our recent debt refinancing, we are in a unique position to further enhance shareholder value."

The theme park giant emerged from bankruptcy in May 2010. The company is currently valued at around US\$2.4bn on the New York Stock Exchange. (See interview on p24.)

Meraas plans AED2.2bn Dubai theme park

United Arab Emirates (UAE)-based real estate firm Meraas has announced plans to develop a new AED2.2bn (£382m, €459m, US\$599m) movie-based theme park.

Dubai Adventure Studios will be located at Meraas' master development near to the Arabian Ranches intersection and is to form the first stage in a three-phase scheme covering 18 million sq ft (743,224,500 sq m) of land.

The theme park itself will span 2 million sq ft (185,806,500 sq m) and comprise five zones, each of which will feature latest-in-technology games and new-generation rides and attractions.

Hospitality and food/beverage areas are also proposed as part of efforts to establish an "all-inclusive entertainment destination". It is hoped work will commence in early



An artist's impression of what Dubai Adventure Studios will look like

2012, with the new theme park opening in late 2014. Meraas chief business development officer Sina Al Kazim said: "Meraas recognises the need for a theme park in Dubai that will complement the UAE's growing popularity as a tourism hub. Dubai Adventure Studios will offer a truly unique experience that will set a distinctive benchmark in the evolution of the theme park industry."

Adventure World concept planned for Abu Dhabi

Las Palm, the company behind the proposed new Adventure World Warsaw attraction to be built in Poland, has unveiled plans to take the concept to Abu Dhabi, United Arab Emirates. The consortium has already invested more than €11m (£9.2m, US\$14.3m) in the Polish

attraction, which aims to offer a comparable experience to other major European parks.

However, it is now proposed an Abu Dhabi theme park will be built "in parallel" to the new Grodzisk Mazowiecki destination, with the latter due to open first. (See page 52)

Theme Park News

US\$3.1bn theme park for Hubei

Los Angeles, US-based Ikonik Entertainment Group has secured a deal with investment company Taichi Lake Group to design and develop a Tai Chi and Kung Fu-themed visitor attraction complex in Hubei, China.

Ikonik will provide master planning, concept creation, schematic design and construction oversight services for the US\$3.1bn (£2bn, €2.4bn) project, which is touted as the largest theme park ever to open in China.

The attraction, due to open in 2015, will include a Taichi Kung Fu theme park and a large theatre for live shows. It is estimated that the agreement reached between Ikonik and Taichi Lake Group will generate several hundred jobs – as well as revenues – for numerous Los Angeles-based subcontractors and service providers over the next three years.



The theme park will be based on Chinese culture and traditions

The agreement will feature Ikonik as the master designer and project manager for a series of projects commissioned by Taichi Lake Group. These include a Kung Fu-oriented theme park at Wudang Mountain, Hubei Province; an amusement park in Qingzhou, Shandong Province; and a live show combining Daoist and Taichi Kung Fu culture with Western entertainment concepts.

Cartoon Network to open branded attractions in Asia

Cartoon Network Enterprises, part of the Turner Entertainment group, is to open more branded visitor attractions across Asia Pacific.

The attractions will include family entertainment centres, themed zones and learning spaces and will feature characters from the

company's cartoon portfolio – including Ben 10 and The Powerpuff Girls.

The news comes as Cartoon Network Asia Pacific acquired rights to Chaplin and Co – an animated series created by India-based DQ Entertainment and Method Animation.

Permanent Madame Tussauds for Tokyo

Merlin Entertainments has confirmed that it will open a permanent Madame Tussauds at Decks Tokyo Beach Mall in the Japanese capital in April 2013. The attraction will open alongside the company's new Legoland Discovery Centre which opens later this year. The decision to open a permanent Madame Tussauds follows the success of a temporary waxwork attraction at the same location.

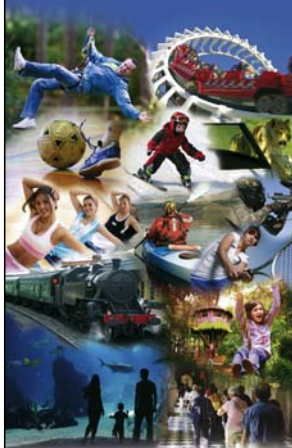
Russell Barnes, Merlin's divisional director of Midway Developments said: "Our daily customer feedback survey has shown that visitors to the Tokyo attraction, both local and tourists, have obviously loved the experience, and been fascinated by the wax figures of their heroes. The new exhibition will take this experience



Madame Tussauds Tokyo will be located next to Legoland Discovery Centre

to another level – not just with three or four times as many figures, but without ropes and barriers, and with really immersive sets. Visitors will have no problem believing that they really are standing beside, or even 'interacting' with their heroes."

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Helsinki Guggenheim a step closer

A new concept and development study into the development of a Guggenheim museum in Helsinki, Finland, has identified a site along the South Harbour waterfront for the project. The findings were delivered by representatives of the Solomon R Guggenheim Foundation to Helsinki mayor Jussi Pajunen on 10 January, a year after the report was commissioned.

A city-owned site where the Kanava Terminal Building is currently located is set to host the 12,000sq m (129,167sq ft) attraction, which will boast 3,920sq m (42,195sq ft) of galleries. The recommendations, which also places the cost of construction and design at €140m (£116m, US\$179m), will now be reviewed by the City Board and City Council of Helsinki.

It has been estimated that the mid-range attendance for a museum will be 500,000-



Helsinki mayor Jussi Pajunen (fifth from left) and the Guggenheim team

550,000 visitors a year, of which around 300,000 are expected to come from Finnish residents. The study also recommends that a new Guggenheim Museum absorb some of the exhibitions and education functions undertaken by the Helsinki Art Museum.

Pajunen said: "The study clearly states that investment in the proposed Guggenheim would be worthwhile economically."

'Napoleonland' park and museum planned for France

Yves Jégo, the mayor of Montreau-Fault-Yonne commune in central France, has announced plans to build a historical theme park celebrating the life of Napoleon Bonaparte, the former French emperor. The park would be located in Montreau, south east of Paris - the site of the

former French leader's most famous victory against the Austrian army in 1814.

Jégo said that he is looking to secure funding of around €200m (£166m, US\$259m) for the park, which is set to include a number of attractions and a museum.

London's Design Museum to treble in size



Detailed plans have been revealed for the relocation of the Design Museum in London from its current location on the south bank of the Thames to the Commonwealth Institute building in Kensington.

John Pawson has redesigned the interior of the Grade II*-listed Commonwealth building while Netherlands-based OMA has planned the surrounding residential development. The move will bring the museum into Kensington's cultural quarter, where it will join the V&A, Science Museum, Natural History Museum, Royal College of Art and Serpentine Gallery. The new building will open in 2014 and will treble the amount of gallery space currently available. The museum aims to double its visitor numbers to 500,000



The museum aims to double its visitor numbers to 500,000 a year

a year, and will greatly expand its education and public events programme with state of the art facilities. Funding for the project will come from a number of sources, including £17m (€20.5m, \$26.5m) from The Conran Foundation and a £4.95m (€6m, \$7.7m) grant from the Heritage Lottery Fund.



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The museum will tell the story of the city's history

£9m BMAG development moves forward

A £9m (€10.8m, \$14m) project to create new galleries exploring the history of Birmingham at Birmingham Museum and Art Gallery (BMAG) has moved forward, with the internal fit-out now set to begin.

Thomas Vale Construction is handing over the new Birmingham History Galleries to staff, following work to restore and refurbish part of the Grade II*-listed museum building. West Yorkshire-based Redman Design is behind the proposals.

Due to open in September 2012, the project has involved the creation of more than 1,000sq m (10,764sq ft) of space.

Heritage attraction opens in Ugandan capital

The Igongo Centre has opened its doors to the public in Biharwe, Uganda.

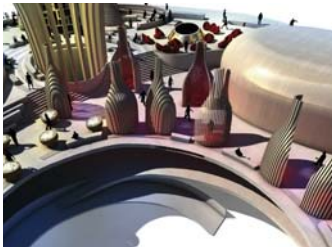
The heritage attraction has been billed as a 'cultural museum' and will showcase Ugandan art and exhibit traditional Ugandan life as well as chart the country's history. Owned by publisher James Tumusiime, the attraction is the first of its kind in East Africa. Uganda's president Yoweri Museveni, who attended the opening, said: "The African cultural heritage as well as the African languages are very rich but need to be used positively."

Wine attraction for Bordeaux

Casson Mann has revealed that it is working in partnership with Paris-based architects X-TU on the development of a new international cultural wine centre for Bordeaux, France.

The facility, which forms part of a strategy to promote the city as the world's wine capital, is due to open in 2014 and will explore the stories behind wine and its place within culture.

It is hoped the Centre for Wine Culture and Tourism will become an "important destination" for wine lovers and visitors, with a hologram cinema and interactive devices proposed. Facilities will include 'Le vin au coeur des civilisations', an "atmospheric" gallery that is set to be submerged into the ground and will examine more than 4,000 years of wine history. The City of Bordeaux, Bordeaux Urban



The visitor attraction will showcase the region's rich history of wine

Community and the CIVB - Inter-profession wine council are partnering on the €55m (£47.4m, US\$74.4m) development.

Bordeaux Chamber of Commerce and Aquitaine Regional Council are also involved, with the 10,000sq m (107,639sq ft) centre scheduled for completion in 2014.

NIAO concern over Titanic development

The Northern Ireland Audit Office (NIAO) has published its review of the Northern Ireland Tourist Board's (NITB) Signature Projects.

Among the developments examined as part of the NIAO study is the Titanic Signature Building in Belfast and the new Giant's Causeway Visitor Centre in County Antrim.

The total cost of the Signature Projects, which include the Walled City of Derry, will be £159m (€191m, \$247.7m) when complete, of which £71m (€85.3m, \$110.6m) comes from NITB. According to the NIAO, the Titanic Signature Building - due to open in March 2012 - will need 290,000 visitors each year to break even and may face an uncertain future if predicted tourist numbers are not realised.



The Titanic Signature Building is due to open in 2012

The NIAO also raised concerns about the appeal of the attraction, with the economic downturn leaving many parts of the Titanic Quarter undeveloped.

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NY Met reopens American Wing

Metropolitan Museum of Art in New York, US has reopened its American Wing after completing a four-year renovation of the museum's galleries of American art.

The refurbishment, designed by Connecticut-based project architects Kevin Roche John Dinkeloo and Associates, included locating the entire American collection on one floor – it was previously spread across two floors – and the creation of an additional 3,300sq ft (307sq m) of floor space. The expansion has increased the total exhibition space to more than 30,000sq ft (2,800sq m). The American section now comprises of 26 renovated and enlarged galleries on the museum's second floor.

A spokesperson for the museum said: "The new installation will provide visitors with a rich and captivating experience of the



The centrepiece of the gallery: *Washington crossing the Delaware*

history of American art from the 18th century through to the early 20th century.

"The suite of elegant new galleries encompasses 30,000sq ft (2,788sq m) for the display of the museum's superb collection."

The centrepiece of the new installation is one of the best-known works in all of American art, Emanuel Gottlieb Leutze's 1851 painting *Washington Crossing the Delaware*.

SFMOMA unveils detailed expansion plans

San Francisco Museum of Modern Art (SFMOMA) in California, US has revealed detailed designs for its proposed expansion project, the scope of which has now been increased. The attraction has revealed that it has raised its fundraising goal by 15 per cent

to US\$555m (£354m, €411m). This is to help create additional spaces for education, exhibitions and collections.

Norway-based Snøhetta has worked with SFMOMA and local architects EHDD to draw up the plans. Work will start in 2013.

US\$30.5m arts museum for Stanford

Stanford University's board of trustees has approved plans for a US\$30.5m (£20m, €23m) arts museum which will house the university's Anderson Collection.

New York-based Ennead Architects have been appointed to design the 30,000sq ft (2,788sq m) building – one of two new arts buildings at the institution.

It will house dedicated museum spaces and a public lobby, as well as offices, a conference room, a library/study area and space for storing art. Together with another new building – McMurtry Building, the future home of the Department of Art & Art History – the new museum will form the cornerstone of the university's new arts district, the Stanford Arts Initiative.



The new arts museum will be on the Stanford University campus

The core of the Anderson Collection, 121 works by 86 artists, is being donated to Stanford by Harry W and Mary Margaret Anderson, and Mary Patricia Anderson Pence – the Bay Area family that collected the art over nearly 50 years. Construction work on the new museum will begin in late 2012.

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MALAYSIA

STEVE PEET

Malaysia, well known for its nature-based tourism assets, has not yet made its mark on the international attractions stage. Steve Peet tells Jennifer Harbottle about plans to create an 'Asian Orlando'



To date, it's fair to say Malaysia has been a bit behind in the themed attractions area of a typical growing economy. In 2007, the Malaysian government commissioned research to assess the main economic stimuli for Malaysia's future. Leisure and tourism was recognised as one of the 12 drivers, for what is now referred to as the Government Economic Transformation Programme. Khazanah Nasional Berhad is the investment arm of the Malaysian government, tasked with developing industries in Malaysia that will benefit the nation's long-term economic interests. In 2009,

Kazanah set up two companies, Themed Attractions – with Steve Peet as COO – and Destination Resorts, to develop Malaysia's Leisure & Tourism industry.

NEW YEAR, NEW ERA

2012 is a significant year for the two companies. Both are on the cusp of opening a number of world-class attractions and luxurious resort destinations that will signal a new era for the Malaysian travel market. These include Legoland Malaysia, Puteri Harbour, Desaru Coast and KidZania Kuala Lumpur (KL). Apart from KidZania, their initial projects will be centred in the

Southern Gateway to Malaysia in the state of Johor, known for its strategic location to neighbouring Singapore. Legoland Malaysia Resort, which will include the first Legoland theme park in Asia, will also feature a Legoland hotel, a retail mall, a business hotel plus office and residential areas. It will retain its Asian touch by featuring miniature replicas of iconic buildings across Asia, including Malaysia's Petronas Twin Towers – soon to be the tallest Lego structure in the world.

A second development in the Southern region, set to open in October, is Puteri Harbour – a mixed hotel, retail and entertainment complex along the coastline that will feature a Sanrio-licensed Hello Kitty indoor theme park.

Puteri Harbour will also include a second indoor theme park called The Little Big Club designed around other branded characters, such as Bob the Builder, Pingu and Angelina Ballerina. Tunku Dato' Ahmad Burhanuddin, managing director and chief executive officer of Themed Attractions and Resorts Sdn Bhd, describes the distribution of theme parks within the 50km radius spanning Johor and Singapore as "aspirational of an Asian Orlando".

KIDZANIA

The first attraction to open under Themed Attractions is KidZania KL, which will kick start the group's operations when it opens in February 2012. The group will open a second KidZania in Singapore in 2014.



KidZania Kuala Lumpur will offer 59 workplaces so children can learn about different occupations



Steve Peet is helping build the attractions industry in Malaysia, including capital Kuala Lumpur

Legoland Malaysia will open in September 2012 and will be the first Legoland park in Asia



The indoor educational and entertainment theme park gives children the opportunity to learn about the world of adult occupations by role-playing different occupations. These include a firefighter, pilot, doctor and chef. KidZania KL will showcase 59 workplaces, providing 90 different vocations for children to experience.

The award-winning franchise from Mexico is a clever choice as, according to the Department of Statistics, Malays have an average of 4.4 children per family. Also, neither Malaysia, nor its neighbours, have many attractions aimed at children aged four to 12. Burhanuddin confirms that the companies' emphasis – for the moment at least – is on creating "family-orientated entertainment offerings".

INDUSTRY EXPERTS

A solid team of theme park experts has been employed to run the group's operations. They include Darrell Metzger (ex Sentosa Island Singapore), who has been brought in as executive committee chairman for both Destination Resorts and Themed Attractions (see *interview* on p27), alongside Peet, who was formerly with Warner Village Theme Parks.

The company's taking no chances with its start-up team for KidZania KL. As, potentially, the group's main attraction, it will either be its poison chalice or shining star. Will Edwards (ex governor of KidZania, Dubai and Six Flags operations) is operations director and Jean-Marc Bled

"GREAT SERVICE IS FAR MORE ACHIEVABLE WHEN YOU START WITH A CULTURE THAT IS FRIENDLY, WARM AND NATURALLY WELCOMING, AS MALAYSIANS ARE"

(previously with Merlin Group and Disney and the ex mayor of KidZania, Dubai) takes up the role of vice president of operations.

As well as relying on international theme park veterans, Peet says the company wants to "nurture creative local talent". He advises that they've already put together a great team of Malaysian senior managers, made up of the most experienced people in the Malaysian attractions industry. In total, Themed Attraction's projects will create 10,000 jobs over the next three years.

But finding local talent isn't proving easy. "It's always going to be a challenge to get that number of people in an almost brand new industry," Peet says. "Predominately, we're looking to source employees from Malaysia, but we have to be open minded

to the fact we may have to look at other employment markets to fulfil skill sets." On the upside, Peet claims Malaysians' inherent warmth makes them a natural fit for the theme park market. "Great service is far more achievable when you start with a culture that is friendly, warm and naturally welcoming, as Malaysians are."

But he's not taking any chances. "Our emphasis will be on very structured training and nurturing of our staff to get them to the point where they can operate and grow the business in the future."

Peet admits that one of the challenges his team faces is in educating the Malaysian market about an industry which, he says, "they've had little or no exposure to." Locals, he says, "like to travel" but con-

► cedes that "affordability and accessibility will need to play a key role in appealing to the domestic market".

"Our strategy is to ensure we get the product and pricing right so that we're accommodating the aspirational desires of the Malaysian market," Peet explains. "For each brand, our marketing and communications strategy is to educate the market so that, for instance, they understand that Legoland Malaysia is not just a giant toy store, but is an interactive theme park offering a full day experience." He says it's not important for them to know that Legoland Malaysia is a (Malaysian Ringgit) MYR720m (£149.5m, €179.7m, US\$230m) theme park, just that they "feel excited by what they experience". Presumably, the nearby Singapore market (an obvious target market for Legoland) won't need educating in the same way – if they haven't already experienced Sentosa's branded attractions, including Universal Studios, most Singaporeans are at least familiar with themed attractions.

LEGOLAND

It's because of Singapore's close proximity to Johor that the location has been chosen for Legoland, Puteri Harbour and some of the other planned attractions. Peet says they're not looking to directly compete with their Singaporean counterparts. Instead they've chosen attractions that fit the gap



Children can assume many different roles at KidZania including firefighter, vet, chef and even surgeon (above)

for what they feel is currently missing in the marketplace. "Our focus is on creating an holistic tourism model," Peet explains. "We want to create a theme park destination with critical mass – a tourism hub within South East Asia that gives people another reason to visit this area."

Themed Attractions and Destination Resorts aren't only about licensed products. The two companies are also working on their own mixed-use beach-front development called Desaru Coast, which will open in 2014. Desaru Coast will feature an 18-acre waterpark called Water World and an 11-acre marine park named Ocean

Quest. Both will be operated in-house by Themed Attractions. In line with its Asian-Orlando-inspired blueprint, the two water attractions will be located alongside luxury resorts by Sheraton, Shangri-La and Aman. A retail shopping arcade located alongside a unique river walk setting and two celebrity-designed golf courses will also feature.

According to Peet, it can sometimes be a complicated formula to have an attraction and a resort destination working with each other – particularly if they *don't* work with each other. "The challenge is in making sure the businesses don't work as silos," says Peet. "The attraction and the hotel need to understand that the other is an asset, which will either optimise their stays or increase turnstile numbers.

"What we don't want is for guests to feel as though they've left one entity (the hotel) and entered another (the attraction)."

So can Themed Attractions create a new theme park hub in Malaysia? "It's a very exciting time for us," says Peet. "The Malaysian government Themed Attractions has committed almost MYR5bn (£1.04bn, €1.25bn, US\$1.6bn), plus we have a well rounded team that knows both the industry and the local market.

"As for our prospects for success, Malaysia is already a very popular destination for a family holiday," he continues. "It's inexpensive, it has beaches, jungle and wildlife, yet Kuala Lumpur is lacking in tourist offerings for visitors. This puts us in the perfect position to develop attractions that will compete on the international stage.

"We're quietly confident Themed Attractions and Destination Resorts can position Malaysia as *the* destination of choice for families." ●

THEMED ATTRACTIONS AND DESTINATION RESORTS DEVELOPMENTS

KidZania Kuala Lumpur	KidZania is an edutainment park that allows children to role play adult occupations in a replica city. Opening in February 2012 KidZania Singapore will open in 2014
Little Big Club at Puteri Harbour	The Little Big Club is an indoor theme park designed around HIT Entertainment's popular characters of Thomas & Friends, Bob the Builder, Angelina Ballerina, Barney & Friends and Pingu. Located at Puteri Harbour, Nusajaya, Johor. Opening in October 2012
Hello Kitty Town at Puteri Harbour	Sanrio Hello Kitty Attractions is an indoor theme park showcasing Hello Kitty and other Sanrio characters by Sanrio. Located at Puteri Harbour, Nusajaya, Johor. Opening in October 2012
LAT Kampung Boy Restaurant at Puteri Harbour	A themed family restaurant based on the popular local cartoon, LAT. Located at Puteri Harbour, Nusajaya, Johor. Opening in October 2012
Legoland Malaysia	The first Legoland in South Asia and the sixth in the world, Legoland Malaysia will feature more than 40 interactive rides, shows and attractions. Located at Nusajaya, Johor. Opening in September 2012
Ocean Quest at Desaru Coast and Water World at Desaru Coast	Two water themed parks, one of which will incorporate marine life. Both attractions are part of Desaru Coast, Johor. Opening in 2014

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CHANGING TIMES

ATTRACTIONS MANAGEMENT
15TH ANNIVERSARY

To mark Attraction Management's 15th anniversary, we look at how the industry has changed in the past 15 years and how it will develop in the next 15. In the first of a four-part series, industry experts give Kathleen Whyman their views

Nick Varney

CEO, Merlin Entertainments

"The biggest, and continuing, change in the industry over the last 15 years has been consolidation – across the world, but particularly in Europe, although it began a little earlier in the US. Merlin's own growth is – in part, an example of this. That said, the industry remains amazingly fragmented (for example, Disney and Merlin, the two biggest operators, together represent only around five per cent of the market) and there remains a clear place for good independent operators, which should be encouraged, as well as for the larger groups.

With this has come greater professionalism across all parts of the business, with much more emphasis on return on invested capital. This has been led by the significant changes in investment funding and banking during this period. And while it may be a more obvious and important discipline for larger companies seeking ongoing investment and financing, it's increasingly the yardstick by which all successful companies in the industry are judged – large and small.



Nick Varney became CEO of Merlin in 1999

CUSTOMER SERVICE

Equally, there's now much greater emphasis on customer service and customer needs. This means not only more emphasis on quality and safety standards as required by tightening regulations, but also and as importantly, responding to more sophisticated, knowledgeable visitors.

Visitors today are looking for real value for money. They have more choices, have travelled more and are better able to make comparisons between experiences. The whole industry is constantly moving the customer benchmarks forward and this won't change.

Part of this is also the creation of clear brand and attraction propositions which always deliver what they promise, and which are clearly targeted at different groups – from teens and young adults to families with young children.

We need to constantly offer new packages and add-on services, which not

15 years ago I listened to a presentation telling us that **virtual experiences** would make **theme parks** **redundant**. They were **wrong!**

only suit a wide range of visitors' pockets, but reflect the different experiences that bring visitors to our attractions.

SHARING EXPERIENCES

Perhaps one of the most interesting things, however, is what hasn't changed. More than 15 years ago I sat in a room and listened to a presentation telling us that the rise of technology and in-home entertainment would be the death knell of the attraction industry and that virtual experiences would make theme parks redundant. They were wrong! What's most notable is just how little technology has changed the core proposition of our industry. What that person failed to realise was that the essence of the attraction industry is the physical sharing of experiences – friends and families having fun together and interacting with one another, not a machine.

That hasn't changed, nor do I believe it will. In fact, as technology removes social interaction in other areas, it may become even more important.

In the next 15 years there will be an explosion of business in Asia Pacific, which is a virtually untapped market. Out of this will emerge world class companies and big attractions that as yet we can only dream of.



We interviewed Nick Varney 15 years ago when he was MD of Vardon Attractions



Weber has been in the industry for 40 years

Al Weber Jr - USA

Chief operating officer,
Six Flags

“Many advances in areas such as engineering technology, computer technology and social media have changed the way amusement parks operate and interact with guests. In many ways, the world is smaller and more connected, as news is in real-time and measured in nano-seconds.

Advancements in the world have altered guests' expectations of a visit to a theme park. The ever-evolving list of entertainment options challenges the industry to elevate the 'wow' factor of our offerings. For example, 15 years ago, live entertainment products centered on a song and dance review. Now entertainment productions must be spectacular with an element of surprise — stretching the creativity of the industry in a positive way.

It's interesting that guests still come to a theme, amusement, water, or animal park for the same reasons they did 50 years ago — the need to escape, have fun with family and friends and to create memories.

The best change has been becoming more connected to our guests, as that's stimulated the industry to improve in many areas. These include offering bigger thrills, improved food and entertainment and higher standards for guests' satisfaction. The challenge of change is why so many of us stay in and love this industry.



New technology has resulted in the mega launch coaster, such as Superman Escape from Krypton

The advent of the **video game** has created the expectation of **virtual simulator attractions** and **shows**, and as an industry we **haven't stepped up** to this **challenge**

THE CHALLENGES

The creation of the virtual world has been competitive and amazing. However, the advent of the video game has created the expectation of virtual simulator attractions and shows, and as an industry we haven't stepped up to this challenge. While there are many simulator executions at differing price points, I can't think of one that truly captures the opportunity and expectation of this product segment. There are a few companies working on how to deliver a virtual world to the guest at a rational price, but as of today, the Star Trek Holodeck hasn't been created.

THE DEVELOPMENTS

The application of the linear induction launch coaster, along with the invention of the magnetic brake system, has truly rescaled the topography of roller coasters. No longer do you need a 100-200ft lift hill or hundreds of feet

of brake run to have a high-speed and high-thrill attraction. This has allowed for the creation of the mega launch coaster where riders are catapulted 100mph or faster in a few seconds, travelling up to 400ft in the air, and then smoothly caught in a section of magnetic brakes. This technology is now being applied in unique ways that advances a new series of more choreographed coaster experiences.

FUTURE CHANGES

The industry will continue to grow and change as technology advances. Whatever the mind can imagine can improve and evolve our product, services and communications. Industry leaders, brand managers, and manufacturers will continue to dream and create, but it's the guest who will drive changes as their interests, experiences and enthusiasms change and evolve. It's our job to listen.”

Roland Mack

IAAPA chair and Managing partner of Europa-Park

The most dynamic development changes are taking place in Asia where many large parks and resorts have opened or are being built. China in particular is growing quickly, leading to the opening of an IAAPA office in Hong Kong.

In Europe, the diversification of existing parks has been the most significant development in the past 15 years. Hotels are now a common part of theme parks, which have become venues for large events and attract a wide range of target groups.

Customers have also changed. They've been to international parks and have greater expectations and a stronger demand for quality. The internet gives them the opportunity to compare parks and attractions very easily. Nevertheless, it's still possible to amaze guests, even with small attractions or services if they have an excellent quality.

Future development isn't about being bigger, higher or faster – it's more about quality and being relevant to specific target groups. The focus on the customer has become more important – loyalty is what we strive to earn. Having a fun, safe day out is what visitors really want, and so do we.

The development in Asia has made our industry more global. This is extremely relevant for suppliers to our industry and issues such as safety standards and the protection of intellectual property have become even more important.

Future development isn't about being bigger, higher or faster – it's about quality and being relevant. Loyalty is what we strive to earn



Roland Mack founded Europa-Park with his father Franz in 1975. Mack Rides was created in 1780

Existing parks need to diversify their offer, which presents both opportunities and challenges. Hotel resorts and conference facilities allow us to target new groups of people, but we then have to learn how to operate a hotel and organise conferences.

INCREASE IN QUALITY

One of the best changes is that the quality in parks worldwide is improving. New attractions enrich our industry and add new dimensions. The theming of rides is getting more and more important, which makes them a whole new experience and goes far beyond thrills. There has also been tremendous development in technology.

At the same time, safety standards have improved. IAAPA is working with industry experts on achieving internationally recognised safety standards.

FUTURE CHANGES

Nothing is more constant than change. The industry has to remain flexible and observe the changes in the market to develop new offers and attractions. This means that all businesses in the industry have to face new challenges and creativity when designing rides.

The transformation from theme parks into resorts will continue. We're opening our fifth hotel, Bell Rock, this year.

Social media has introduced many ways to communicate on various levels. We can now reach thousands of people with just a single post on Facebook, but must be aware of the power the internet has. The best way to protect your business is with quality and constant improvement. But I'm convinced that, despite all the technology, visiting a theme park to have fun with other people will always be popular."

Darrell Metzger - Asia

Chair, Destination Resorts & Hotels, Malaysia

In the past 15 years the Asian attractions industry has gone through a tremendous learning cycle, beginning with many failed theme parks and attractions in the late 1980s – 1990s.

Now the industry has re-emerged to develop successful resorts such as Sentosa, Disney, Universal and FECs, especially in Indonesia.

It was very difficult to find investors or commercial financing for projects after the early failures, but with the emergence of the major brands and their success, investors are much more aggressive in the Asian leisure market. Asia is the most promising growth market on a global basis.

The major brands and large corporate entities, such as OCT in China and Genting in Singapore, have quickly raised the quality level to equal any in the industry, so customer expectations are beginning to match that of the mature markets of Europe and North

America. Universal recently opened its Transformers Ride in Singapore and will follow later with the ride in the US. So, consumers are not only expecting the best, they're getting the best – sometimes before the rest of the world.

Over the next 15 years in Asia you'll see the proliferation of regional parks, similar to what occurred years ago in North America and Europe. Most of the markets in these regions that can support these parks have been tapped into, but the Asia market has a seemingly endless supply of cities that can support regional attractions and FECs. You'll also see the emergence of some large operators who will begin consolidating attractions and create new brands and chains that you've probably never heard of – similar to Merlin, Six Flags and Parques Reunidos.

I believe Asia will follow the same cycles that have occurred in the more mature markets – we're just a few decades behind the curve."



Metzger began his career at Disneyland in 1973

Investors are much more aggressive in the Asian leisure market. It's the most promising growth market on a global basis

Michael Jolly CBE - UK

Consultant

Looking back over the last 15 years, I think the attractions sector has seen real improvements in the quality of the experiences offered. The considerable sums invested, led by private equity but by no means limited to the private sector, have enabled much greater emphasis on visitor engagement, adding more theatre to content presentation, improved storytelling and making places more interesting and accessible.

Customers, meanwhile, have continued to become savvier and their expectations continue to rise. Visitors have more reference points when assessing good value and are very quick to tell others where value is poor.

In the UK, the attractions sector continues to be often misunderstood by politicians from all sides. For example, free admission to our major museums is a misguided way of trying to help widen their visitation levels across



15 years ago Jolly was chair of The Tussauds Group

I suspect TripAdvisor will become ever more ruthless and that's another management challenge

society. The level of tax on ticket prices continues to put the UK at a disadvantage, but I doubt things will change.

The highlights of the last 15 years include the arrival of a major modern art museum in London; the phenomenal global growth of Merlin Entertainments; the success of the National Trust on so many fronts; and seeing the roles played by The Eden Project and Alnwick Garden in using attractions to spearhead regional economies. On the down side, I still think it a shame we don't have a truly world class aquarium in the UK – we are, after all, surrounded by water.

Looking ahead for the next 15 years, in-bound tourism should boom on the back of the many global sporting events being staged in the UK in the coming years. The Olympics and the Diamond Jubilee should kick start the process. This is a golden opportunity for the UK and we've got to make sure we manage it well. On a more daunting front, for all visitor attractions, I suspect TripAdvisor will become ever more ruthless and that's another management challenge." ●



PHOTO: ROB MCCOY/ANTAL

The museum is now divided into five zones displaying more than 8,000 artefacts in total

THE NATIONAL MUSEUM OF SCOTLAND

Restoring the Victorian ideal of showcasing the world under one roof was the inspiration behind the NMS's £70m, 15-year redevelopment project, as Kathleen Whyman learns

DR GORDON RINTOUL
Director of National
Museums Scotland



What is the National Museum of Scotland?

It's the flagship of National Museums Scotland's six museums. Its aim is to connect Scotland to the world and the world to Scotland. Prior to this development the museum was housed in two adjacent buildings known as The Royal Museum and the Museum of Scotland, which was confusing both the public and the media.

In 2004 we launched a £70m (€82.5m, US\$109.2m) masterplan to redevelop the Victorian building and integrate the two museums as the National Museum of Scotland. We're eight years into the 15-year plan. Phase one opened in July 2011 revealing a £47.4m (€56.3m, US\$73.5m) transformation. The two buildings are

now divided into five zones displaying 8,000 artefacts: the natural world; cultures around the world; art and design; science and technology; and Scotland.

What inspired the masterplan?

The Museum of Scotland building opened in 1998. The older building next door, then called The Royal Museum, was looking terribly tired. It opened in 1866 and had been amended and added to over the years but never given a comprehensive update. It had very old displays and its interpretation and facilities were out of date.

Also, although they were part of the same complex, we still called the two museums different things – there was a different name over each entrance. We needed to give the complex a single identity so that everyone was clear who we are and what we display. In many ways we've gone back to the roots and original foundation of the museum – that great Victorian

ideal of educating the population at large and enabling them to find out about the whole world under one roof.

How has the museum changed?

We've created an entirely new museum. Previously, the ground floor was primarily storage and visitors entered the building on the first floor. We've moved the storage off site and put an entrance at street level with toilets, shops, restaurants and cafés.

There are 16 new galleries plus a three-storey learning centre where we have events for schools and for families at weekends plus adult lectures. We've restored the building to its Victorian splendour but brought the facilities right up to date.

How was the money raised?

We got £16m (€19m, \$24.8m) from the Scottish government, which was terrific and helped leverage other support. We had £18m (€21.5m, \$27.9m) from the

The Grand Gallery's original Victorian architecture has been restored to its former glory



"WE'VE GONE BACK TO THAT GREAT VICTORIAN IDEAL OF EDUCATING THE POPULATION AT LARGE AND ENABLING THEM TO FIND OUT ABOUT THE WHOLE WORLD UNDER ONE ROOF"



(Left) The new entrance has opened up a whole new floor to visitors; (right) Mask of Ravanna in the Performance and Lives gallery

"WE HAD 6,000 VISITORS IN OUR FIRST HOUR. WHEN WE OPENED THE DOORS PEOPLE ACTUALLY RAN IN"

- Heritage Lottery Fund and the museum itself raised more than £13.6m (€14.9m, \$19.4m) from individuals and charitable trusts. People understood the vision and ambition of what we were trying to achieve and wanted to support it.

What's the next stage of the masterplan?

We're planning a further eight exhibition galleries, so there's more fund raising to do. We have one of the most important science and technology collections in Europe, so four of the galleries will showcase this with interactives. The other four will display European art and design. We've got many treasures that haven't seen the light of day for decades.

Why should people visit the National Museum Scotland?

It's a major museum that's just as good as the best internationally across the world.

We can offer the experience of an amazing building, incredible stories of Scots going off across the world and a host of experiences for all visitors, from children looking for interaction and engagement to adults wanting to see and experience some wonderful objects.

Extremely rare artefacts at the museum include this mid-19th century Native American chief's outfit



CATHERINE HOLDEN

Director of marketing and development



What's the marketing strategy?

Firstly, to promote awareness of the project and increase footfall. We also wanted to engage broader audiences and develop perception of our brand. People were confused about our offer. They didn't realise we had a lot of contemporary content.

What were the challenges?

We needed to move up a level from good to great and help people understand the diversity of our collections.

Our slogan is see the world under one roof. In our campaign we chose unexpected juxtapositions across the collection. We picked out quirky examples that work together visually and verbally. For example, one visual tops and tails an insect and some armour and the tag line reads 'from beetles to battles'.

Another challenge is the range of our collections. With so much to talk about, where do you start? But this means we can appeal to a big, populist audience or select areas of interest.

What partnerships have you done?

Our city partnerships show that we're a fun, stimulating part of city life, not an isolated experience. These include 20m-high graphics in the centre of Edinburgh, banners

down the main street and posters in and on the buses and at the airport. We also worked with hotels and tour guides, VisitScotland, the AA and Trainline.

My favourite partnership was with the high street shop House of Fraser. The main window featured a huge dinosaur model wrapped in brown paper. Every day a little more was unwrapped until the dinosaur was revealed on opening day.

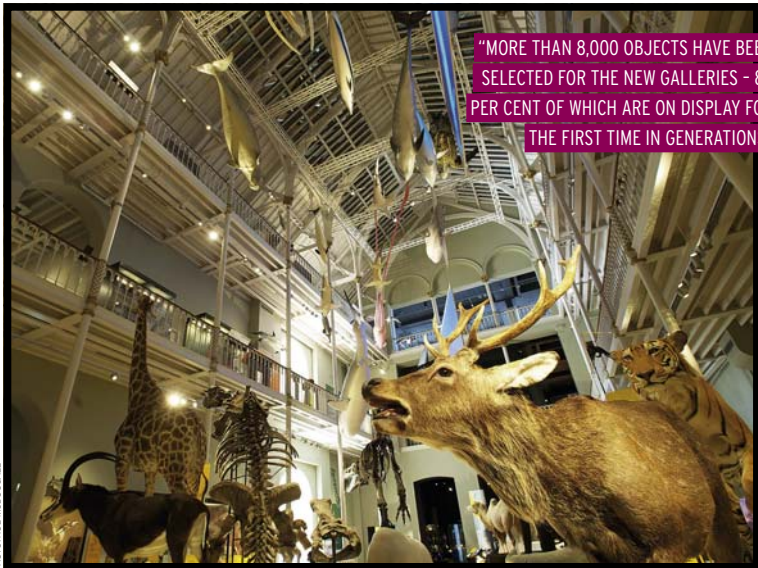
How many visitors have you had?

On 24th November we went past our one million mark. That's a million in four months, which is amazing as that was our target for the whole year. We had 6,000 visitors in our first hour, which was an indication – the street outside was packed for the opening ceremony. When we opened the doors people actually ran in. In total, 22,000 people visited on the first day.

What feedback have you received?

In visitor research on our opening weekend, almost nine out of 10 people said the museum exceeded their expectations. There are 220 reviews on TripAdvisor, our Twitter followers have doubled and Facebook friends increased 20-fold.

We're also getting recognition with awards. The architect Gareth Hoskins won the RIAS Andrew Doolan Best Building in Scotland Award 2011 and our director Gordon Rintoul was named Top Scot in the Glenfiddich Spirit of Scotland Awards. In the past, the Top Scot has gone to household names such as Harry Potter author JK Rowling and tennis player Andy Murray, but Gordon won it this year. He's much too modest to mention it, but he was very moved and it shows what a depth of feeling there is for the museum.



**"MORE THAN 8,000 OBJECTS HAVE BEEN
SELECTED FOR THE NEW GALLERIES - 80
PER CENT OF WHICH ARE ON DISPLAY FOR
THE FIRST TIME IN GENERATIONS"**

The Natural World area looks at animals in their natural environment, how their senses work and how they survive in today's world

JANE CARMICHAEL
Director of collections



What are the collections?

We've been built up over 200 years. They vary from Egyptian artefacts through to Scottish archaeology and history, the natural world, science and technology, European art and design and world cultures. More than 8,000 objects have been selected for the new galleries - 80 per cent of which are on display for the first time in generations.

How are they displayed?

We've created order where previously there was precious little. The displays have been organised in units. We have this splendid Victorian architecture with a ground floor and two mezzanines above.

Each unit of three levels has become a showcase for a particular subject area, such as the Natural World or the Planet Earth or our World Cultures collections.

How did you choose the exhibits?

Our world cultures collections were the big discovery of the projects. They were stored

in our basement in very crowded conditions and we hadn't been able to assess them for years. By taking them out of the old stores and putting them into new ones we could see what we had and decide how to make the most of it. Highlights include complete outfits from native American chiefs dating back to the mid 19th century, which are astonishingly rare.

When deciding how the gallery should be constructed, we worked out how much space should be allocated for each topic and came up with the idea that each subject matter should be in different stacks over three levels. For the Natural World stack, we decided that the bottom floor should show animals in their environment, using lighting, film and sound. The first floor looks at how their senses work and the second focuses on how they survive and the challenges of climate change and extinction that animals face today.

How have you been able to display so many more artefacts than before?

We've rediscovered our Victorian architecture. Most of our archways had been blocked up, so we cleared the building of the clutter that had accrued over the years.

The Victorians really knew about designing public spaces. Now you can stand in

our grand gallery and get a sense of the building around you and the open space.

What is the Window on the World display?

Our Window on The World display in the grand gallery accommodates 800 objects. The idea was to create a signature space which would identify us and what we are about. We wanted to give a sense of our multidisciplinary collections and show the enormous variety of what we have, plus use the space imaginatively.

The arrangement is a mixture of a reasonable balance across the different subjects and getting the shapes to work together alongside the very dramatic lighting and graphics. For example, a bicycle that carries four people hangs beside a superb selection of works in silver because they both have strong shapes. The display also includes our working models, such as engines and trains, including Stephenson's Rocket, which are beautiful and work when people press a button.

Another important factor was to create a unity within the building. The display starts in the arrivals hall and goes all the way up to the top of the building. It also acts as a visitor draw - you see it on one level and want to go up and explore the rest. The public seems to love it - it's so different.



PHOTO: NATIONAL MUSEUMS SCOTLAND

"WE HAD TO JACK THE WHOLE BUILDING UP AND SCOOP OUT THE UNDERNEATH - ALL WITHOUT CRACKING A PANE OF GLASS"

The Window on the World is an imaginative use of space to demonstrate the diversity and wide range of collections at the museum

GARETH HOSKINS
Director of Gareth
Hoskins Architects



What's your design?

We worked with the exhibition designer Ralph Appelbaum Associates on a concept where the museum spaces worked together rather than just being dropped in. There had to be a coherent use of the spaces and the fantastic volumes – the building has three-storey atria galleries.

We also wanted to connect the museum with the city. It sits in the middle of the old town on a world heritage site. It's one of the most visited cities in the world and yet the most visitors the museum ever had was 800,000 in a year.

How did you achieve this?

We looked back at the historical development of the complex. As is often the case with Victorian buildings, it had lots of piecemeal additions – someone's decided they need a certain gallery or disabled toilets and have put them in to deal with an immediate need. This project allowed us to step back and look at the whole complex and ask: What things are getting in the way? Where can we take things out? Where can we reinstate things that were great about

the original buildings? And how can we fulfil the other needs in a much better way?

For example, the major exhibitions area, which is a big draw, was erected in the centre of the museum so it blocked the view through the museum to galleries and the original circulation patterns. It meant that when visitors came through the door, their first view was of a blocked up entrance. It was an addition that had been put in in a strange place, which we could take out and put in a more suitable location.

What's the aim of the design?

We're putting the space back into its original use. Certain areas had been closed off, so we've reinstated them as galleries.

The museum is now much easier to move round. Previously, only 10 per cent of visitors ever found their way above the first floor. We've created a series of lifts and routes, which take people right up to the top floor, which is effectively the third level of galleries. An article in *The Guardian* newspaper described it as "a museum you can't get lost in", which is a complete turnaround from what it was originally.

What have been the main challenges?

The technical issues of how to make the changes while dealing with delicate fabric and windows. We had to make 20m (65.5ft)-long openings in the ground level,

NATIONAL MUSEUMS SCOTLAND'S PORTFOLIO






- National Museum of Scotland
- National War Museum
- National Museum of Costume
- National Museum of Rural Life
- National Museum of Flight
- National Museums Collection Centre




jack the whole of the building up and scoop out the underneath and lower the levels to form the new entrance and arrivals hall. All of this had to be done without cracking a pane of glass. The construction work was carried out by Balfour Beatty and the gallery fit-out was by Beck Interiors.

What's the next design phase?


In addition to the eight new galleries, the next stage of the masterplan involves changing the street outside the museum and developing the steps at the front of the building to create a real public space.

In most national museums around the world you arrive in a space – here you arrive in a car park. We're going to pedestrianise the street and create a public realm outside the museum and a streetscape. The steps, if you give them more space, will become a meeting and gathering space where people sit. It's going back to that idea of reconnecting the museum with the city. ●

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FRENCH REVOLUTION

Spectaculars, action and drama involving 3,200 volunteers are French theme park Puy du Fou's pièce de résistance. BRC's Bart Dohmen describes the THEA award winning attraction

About three years ago a friend of mine revealed something he called "a hidden secret" of the themed entertainment industry. He told me that somewhere down in the Vendée, a remote area in south-west France, you could find a theme park with incredible live shows, far beyond anything ever seen in the best theme parks around the world.

I was very skeptical. My first thought was, "Yeah, right – amazing entertainment in the middle of nowhere that I've never heard of? Sorry." My friend insisted I at least check the website: www.puydufou.com. I did, and my skepticism turned to curiosity. A park that featured only theatrical spectaculars? An evening show starring 3,200 people? Who were all volunteers?

It still took me two years to make time to go there. When I did, I had one question – why didn't I go two years earlier? I've seen almost all the biggest shows in all the biggest parks in the United States, Asia and Europe. I've seen Waterworld at Universal, and the Moteurs!...action stunt show in Disney Paris. Puy du Fou beats them all.

SHOW STARTER

Our story begins in 1778, when Philippe de Velliers discovered the ruins of an old Renaissance castle called Puy de Fou.

Visionary that he was, he knew immediately that he could create his dream on this site – a large, open-air spectacle telling the story of all the epic battles that took place in this region. He wrote a script and started the l'Association du Puy du Fou, an association of 600 volunteers. He staged his first

show the same year. As the audience grew, the numbers and size of the shows grew, and so did the number of volunteers, evolving toward its present number of 3,200.

These volunteers come from everywhere in France. Complete families, including children, dedicate their summer vacation weekends to appearing in the Cinéscénie – as the large show is now called. There are 28 shows a year and volunteers must commit to doing a minimum of 15 shows a year.

French law only allows 28 shows performed by volunteers per year. This is a big reason why a theme park using professional actors was built adjacent to the castle. In 1989, The Grand Park of Puy du Fou opened to the public.

The entrance is a simple ticketing gate that doesn't in any way indicate what magnificent spectacles are inside. Every

Cinéscénie is the park's biggest show. Lasting an hour and a half and held in the evening, it involves hundreds of actors, animals and special effects

FACT FILE - CINESCENIE

- The Cinéscénie stage covers 23 ha
- 800 actors perform in each show
- 400 volunteers perform backstage support functions for the shows
- 800 fireworks are launched per show
- 8,000 costumes are used in each show
- 100 horses are used in the shows, along with geese, ducks, cows and other livestock
- 14,000 people attend each performance, and the shows are sold out months in advance
- All the money made is invested in future shows



visitor receives a map detailing the show times. The park consists of five large theatre areas and five smaller show areas. The map also reveals smaller points of interest, such as jumping fountains, adventure trails and reconstructed villages of different periods rendered in astonishing detail.

One of those villages is at the entrance of the park – the 1900 town square, a small typical French town square dating from the beginning of the 20th century. This village features shops, information kiosks and restaurants. It also includes a seven-minute music show with animated figures. It was all very cute and beautifully made, but this wasn't why we had travelled to Puy du Fou.

THE VIKINGS

We proceeded to the first show – The Vikings. After a long walk through a beauti-

ful forest, we discovered the theatre area. We entered an open space in the forest through a wooden gate and were seated in a grandstand with wooden planks. We could see some Viking-style houses with a water element in front. This didn't seem to be the setting of a magnificent theatrical pageant. Some actors provided a basic pre-show. We waited for the show to begin.

The wooden entrance door closed and the show started. About 20 actors appeared on stage, along with horses, geese and even buffalo. Then the Vikings attacked the village and the real spectacle began. A Viking ship sailed into the lake from backstage. Buildings erupted into flames as the Vikings fought the villagers. The fires seemed to be real, rather than the result of obvious pyro effects. Our eyes widened – this was really impres-

All of Puy du Fou's shows are based on actual historical events. *Signe du Triomphe* (above) has actual lions in the amphitheatre with the actors

sive. Another full-sized Viking ship, with actors on board, sailed into view, coming from behind, sailing over the seating areas! Then the lake started to bubble. To our amazement, another ship emerged from the water – with two men on the deck! How was this even possible?

I don't want to give away the story line, because you should go and see it for yourself. Suffice it to say that the show – like all the shows – was full of action, drama and brilliantly executed stage illusions. The shows were technically flawless with amazing sound and dazzling special effects, ▶



During the Viking show, spectaculars include a full-size ship emerging from beneath the water with two actors standing on the deck



► staged for maximum drama and audience impact. I simply never knew what was going to happen next. The fact that the shows are based on real history (with some fantasy elements added) makes them even more impressive.

The Viking show was staged in a natural environment, but the others were mounted in areas built from scratch. For the Roman show, *Signe du Triomphe*, the producers created a complete amphitheatre, with a seating capacity of 6,000 to 7,000.

The Don Quichote show is held indoors with a seating capacity of 3,000 and an enormous stage of 2,000sq m (21,500sq ft) which can be completely flooded.

All the shows feature animals. Puy du Fou has more than 160 horses, all trained

by their staff. One of the most amazing shows is called *Ghost dance of the Birds*. This is a bird show. And if you think you've seen other theme park bird shows, come to Puy du Fou and see this show. It's absolutely amazing and is, by far, the best show of this type I've ever seen. The show is held in a specially designed area featuring more than 60 different kinds of birds and is extremely well done.

THE EXPERIENCE

My fear was that a park with only live shows might be boring – too much of the same thing. That wasn't the case here. It was an exciting day filled with pleasurable experiences. The shows here are so different – each with unique wow moments and

emotional passages – that each experience is unique and satisfying.

Between the shows, you can enjoy the beautiful landscape and the fascinating, highly detailed village recreations that provide an enjoyable respite. We purchased a VIP pass which provides access to reserved seating areas, guaranteeing a perfect stage view and allowing you to enter the five show areas just before the show begins. If you do the whole park in one day I advise this option – you'll be assured of great seating for each show.

Our final show was the biggest – the *Cinécénie*. This is held outside the theme park, where everything started, and lasts an hour and a half. Seeing all five shows in one day was almost too much. If you



want to see everything, it'd be advisable to consider staying overnight. The park provides several options, including hotels and bungalows. Accommodation is, of course, themed in the style of Puy du Fou, expressing the history of the region.

All the shows are in French. Everything is pre-recorded, so the actors mime to playback. International visitors can buy a device that allows them to choose between six different languages. My unit worked well. My only quibble was that the Dutch translator had no emotion in his voice.

The park has several F&B outlets, from small venues with sandwiches, to themed restaurants where guests can dine as they might have hundreds of years ago, served by the actors, which adds to the fun. We

tried the a la carte restaurant with authentic local meals. It was a good experience – good food, served by friendly staff.

It's hard to criticise the park, but one comment is that it's a bit difficult to navigate. We sometimes had a hard time finding the next show. Also, there may not be enough for small children to do. I didn't see any play areas for children to let off steam in between shows. Also, you need to be lucky with the weather (we were). It wouldn't be fun watching these shows in the rain. Only one show is indoors, and the seating areas aren't covered.

The Themed Entertainment Association is honouring Puy du Fou this year with a Thea classic award (see p54), which the park will receive in March. It certainly

(Top) Puy du Fou's shows involve 160 horses, all of which have been trained by staff; (bottom) the attraction began in 1978 as a nightly evening show, now called Cinéscénie

deserves this recognition. There's nothing like it in the world. No one stages so many magnificent shows with so many people, such spectacle and such a commitment to bringing real history to life. They have literally invented their own formula, and have worked this formula to attract one and a half million visitors a year. ●

Barl Dohmen, managing director, BRC Imagination Arts BV, The Netherlands

LEGOLAND FLORIDA



Merlin Entertainments has turned the former Cypress Gardens in Florida into a shiny new 150-acre Legoland - the biggest yet. Liz Terry pays a visit

When Merlin acquired the Cypress Gardens in Florida a little over two years ago, CEO Nick Varney could barely contain his excitement and it's easy to see why.

Apart from the excellent location, only 40 minutes from Orlando, it's a beautiful site, on the edge of the mangroves on gently undulating land, which gives easy-to-navigate, but interesting changes of level.

The original Cypress Gardens was built on the site of an old plantation house, which remains to this day, so there are many ancient trees to cast shade. Although I didn't realise until well into my visit, a large chunk of the original Cypress Gardens remains at the back of the park. This is open to visitors without an extra charge, creating a place to wander and

enjoy the wildlife, vegetation and shade. It also has a spectacular mature Banyan tree.

The previous owners spent \$156m (£100m, €114) on the park shortly before going bust, so it was a sweet acquisition for Merlin, which took only two years to create the new Legoland - a fraction of the time needed for a new-build. And they've done a great job - the park is delightful, very well done, colourful and with plenty to do.

On the day of my visit it was pretty warm - in the high 80s. Given Lego's target demographic of children up to 12-years-old, I was impressed when, by the end of the day, I hadn't heard a single child either crying or sounding less than engaged and happy. Of course, being the US, a few of them could have been on Ritalin rather than just enraptured by the experience, but hopefully it was at least a combination of the two factors.

PARK LAYOUT

Because the park was built on top of existing infrastructure, the majority of the rides were already in place and were simply re-themed, so this dictated the layout of the park to a great extent. Many existing features remain, including the observation platform Island In the Sky, a beautiful carousel and the waterski show, which has re-emerged as a Lego Pirate Show.

At the time of visiting, I felt the pirate show was the only slightly weaker feature in the park, and that it lacked impact because very little of the action takes place in the foreground. However, Merlin has assured me the show is getting good visitor feedback scores and has divulged there are plans to take the show up a gear with some modifications, so I'll look forward to being more blown away on my next visit.



New York in Miniland and the 'Bank of Piggy'. Lego set designers have had fun creating cityscapes with gentle wit and humour built in

Legoland is one of the only theme parks in the world which focuses entirely on children under 12



The Space Shuttle and the Kennedy Space Center are popular models

Classics such as the Duplo Village are new additions to the site and having inherited a flying coaster, Merlin has re-themed it to add a flying school alongside its well-loved boating and driving schools.

Of course the Lego is the real star of the show – 50 million bricks were used to construct a range of attractions, models and the delightful (and always my favourite) Miniland, which features sets of the Space Shuttle at the Kennedy Space Center, New York, Washington DC, the Daytona International Speedway, Las Vegas and California, with the Golden Gate Bridge. As with all the Lego parks, the whimsy and attention to detail are delightful and the sets are brought to life with movement, light and sound.

Other areas of the park include Fun Town with its Grand Carousel and Factory Tour, where you can see Lego being 'made'; Lego Kingdoms which has a castle at its heart, as well as the Dragon

NICK FARMER Farmer Attraction Development

Lego parks always have such great humour, based on careful observation of life and portraying the simplest of human foibles with charm and wit, it's no wonder Miniland is always a highlight. As I walked around, it seemed a shame I didn't have a couple of children in tow to enjoy the attention to detail and laugh along with the visual jokes.



The Pirate Waterski show didn't quite hit the spot. Its tenuous storyline lost the thread and it ended up as a parade of merely adequate water skiing characters and a bad guy driving a jet-ski which has been branded by a local dealer – a villain's paint job on this jet-ski is a priority, as it's not 'on-brand'.

However this minor comment aside, if I'd taken a family to Legoland Florida I would have had a good day out and the children would have had a great time.

coaster and Merlin's Challenge ride; Land of Adventure with its dinosaur-themed 'Coastersaurus'; and Lego City – home of the flying, boating and driving schools.

IMAGINATION ZONE

I was particularly impressed with the Imagination Zone where children can build and test computerised Lego Mindstorm robots or build a Lego car and test it against others on a digitally timed track. They can also try Hero Factory – an immersive interactive play area based on Lego's Hero Factory line and a pulley tower which they can play on with their parents to learn about leverage and gravity.

When I visited, the area was buzzing with children who'd settled down to play and looked as though they didn't have the slightest intention of leaving until they were dragged away by their parents – most of whom were having a well-earned rest.

It will be interesting to see how Merlin takes advantage of Lego Mindstorm – the launch of which was which was announced recently. Lego's toy business will work in partnership with the popular online game Mindstorm to create a special Lego set.

Although Merlin says there are no plans to tie the Lego Mindstorm launch in with the theme parks in the foreseeable future, the fact that Mindstorm has 20 million online users could create an interesting commercial opportunity for the parks in both experiential and retailing terms, and the Imagination Zone would be a perfect location for a Mindstorm themed attraction.

The visitor flows have been calculated extremely thoughtfully and work well across the site. Although it was busy during my visit, there were no obvious areas of congestion or long queues – fortunately, as this is something young children not only detest, but are incapable of enduring.



Retailing at Legoland Florida is a serious business for both the operator and the customers



Merchandise on offer meets Lego's high standards and covers all price points



Grannies Apple Fries (and cream) are a novel addition for a theme park

THE WATERPARK

A large perimeter fence inspires curious visitors to peek through and it's possible to see the Lego Waterpark taking shape.

Like the theme park, some of the infrastructure was already in place when Merlin bought the Cypress Gardens, so it's being re-themed and new attractions are being added. The waterpark will open later this year and will be an exciting addition for Merlin, as this will be its first waterpark.

SOCIAL MEDIA

I checked in on Foursquare on arrival, but didn't find any offers running. There were a few grumbles logged – mainly about the parking charges for SUVs, which are higher than for standard cars – plus a couple of mentions about value for money when compared with Disney, but the great turnout I witnessed indicated the park is being well received, so it's to be hoped these are relatively isolated issues.

There was no sign Merlin had attempted to manage its FourSquare reputation or to

organise any special offers, but, given the company's reputation for great marketing, it's unlikely this channel will remain unexploited much longer.

FOOD AND BEVERAGE

Although the food seemed to be going down well with guests, and it's certainly up to a good standard for a theme park, the F&B operation was the only element of the park which seemed to have a few issues. These are largely caused by the absence of food carts and the fact that the main restaurant is at the entrance to the park, so visitors wanting to use it need to retrace their steps to do so.

One mother I spoke to said her kids had got hungry and she was looking around for a cart to buy them a snack, but there were none, so she had to walk back to the restaurant to buy food. She said on the next visit, she'd bring a picnic.

It will be unfortunate if this issue isn't fixed quickly – Merlin is expecting to sign up a good number of season ticket hold-

ers, which it expects will yield a return on their secondary spend in the shops and restaurants. This could be undermined by people bringing their own food.

There's a good choice of places to eat throughout the park, so it could be a question of visitors learning how to plan a day out and use the facilities, and also a question of marketing the existing food outlets within the park and at the point of arrival.

There are a number of novel food offers too, including Grannies' Apple Fries – deep fried apple chips with whipped cream, which I have to report were delicious.

RETAIL

As you'd expect, the retail elements of the park are excellent. Merlin has tapped in to Lego's expertise in this area and the shops are positioned carefully around the park with a great range of the latest merchandise and park-specific toys.

Trade in all the shops seemed brisk on the day I visited and there are delightful toys, clothes and gifts to suit all budgets.



The pirate waterski show at Legoland Florida is in need of some fine tuning

JULIANA DELANEY CEO, Continuum Group

A huge new car park and swanky visitor entrance trumpet Merlin's investment. Inside, beautiful flowers and planting remain from the site's previous owner.

My immediate question? Could such lovely flowers stand out against the palette of Lego's famous primary colours? But they do, and the scale of the site allowed both to blossom in harmony.



There was also some disharmony; guest services and café staff seemed bemused by the demands of visitors and staff leadership looks a challenge in need of a solution, but overall it's bang on the money. All apart from the waterski show, which was so awful it was beyond a joke – it needs fixing and quickly.

With so much to do in Orlando, Lego will have to work hard. The question is, did Merlin select the location as ideal or find an ideally-funded deal? Time will tell.

Lego Mindstorm and Hero Factory are just a few of the feature areas within the park's excellent Imagination Zone

It's really only as you're browsing the shops that you're reminded of the park's role as a brandland for Lego. It's a mark of the integrity of the Lego brand and Merlin's use and interpretation of it that this thought doesn't intrude on your day.

Even as this realisation dawns, you still feel fortunate to be able to get access to such a great range of toys and special items which can't be bought anywhere else.

CYPRESS GARDENS

I wandered into the Garden Shop part way through my visit and found a collection of Cypress Gardens gifts and merchandise which looked as though it had been left over from the park's previous life.

After striking up a conversation with the shopkeeper, I discovered that the Cypress Gardens were still alive and well and hiding towards the back of the Legoland site – something I genuinely hadn't noticed or understood up to that point.

Whether a deliberate decision was made to soft pedal this part of the park, or whether the Lego elements dominate to such an extent that the Cypress Gardens just don't jump out in all the excitement is hard to judge, but I felt it would have been easy to have completely overlooked the gardens. The fact that, when I finally found them, I only saw four other people during my wanderings, confirmed the view that more could be done to bring them to the attention of guests.



THE STAFF

I took every opportunity to talk to the people working in the park and, without exception, they were positive and excited to be there. They also said they felt lucky to be working for Merlin.

Comments included 'I meet people from all over the world – it's exciting to come to work' and 'I love working with the children when they're having such a great time'.

WHAT'S THE SCORE?

Experience	9
Staff	9
Cleanliness	10
Toilets	9
Value for money	9
Overall experience	9

Several had been out of work for sometime before getting jobs at the park and their remarks did seem genuine – they had no idea I was there to write a report. The staff were extremely helpful and professional and took the initiative in most cases.

MY EXPERIENCE

I had a great day out and thoroughly enjoyed the park. It's been beautifully fitted out and it's interesting to see an attraction with such a European feel in the middle of Florida, which up to this point, has been dominated by US-themed operations.

From overheard comments, I felt some of the US visitors were a little bemused by the European vibe, but they still seemed to be having a great time. The concept of a park which is entirely focused on younger children and family interaction is a novelty for Orlando and one which I'm certain will be a great success.

There are plans to develop hotels on the site to move towards the creation of a full-blown resort. Once these are in place, along with the waterpark, it will represent an even more compelling offer for the parents of children under 12.

I'd say congratulations to Merlin and Nick Varney for a savvy investment and a job well done and good luck with phase two. ●

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The historic collection includes a Grumman Wildcat

WAR HEROES

RELIVING A FLIGHT ABOARD A WWII FLYING FORTRESS IS AMONG THE TREATS AT FLIGHT OF FANTASY. NICK FARMER INDULGES HIS LOVE OF OLD AEROPLANES



Nick Farmer describes his day out

In November 2011, I travelled with many others in our industry to Orlando for the IAAPA show. And could I be found doing research among the world's greatest collection of theme parks? Well actually no, I sneaked off to visit Fantasy of Flight an hour down the road in Tampa, to indulge my love of old aeroplanes.

There are Mustangs and a Mitchell, a Sunderland and a Spitfire, a Focke Wulf and a Ford Trimotor – more than 40 aircraft in immaculate concourse condition, most of them airworthy, all presented in a won-

derful art deco hangar facility. Some lucky visitors were taking pleasure flights in a five-seater open-cockpit 1920s Standard.

MUSTANG ALLY

Fantasy of Flight is owned and operated by Kermit Weeks, a world champion aerobatic pilot and collector of fabulous flying machines. A man with a fine moustache and ponytail to match, he has built up a truly wonderful collection of historic aircraft, pretty much all of which he has flown. On the day I was there, he flew his Grumman Wildcat, a Grumman Duck and



A B17 mission plane is among more than 40 aircraft on display



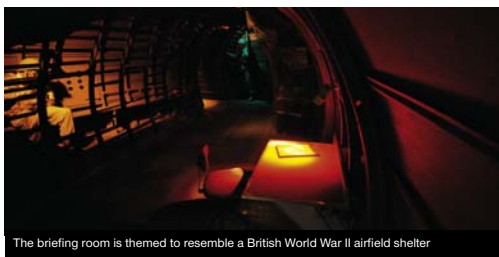
Kermit Weeks welcomes the group, having just landed his Mustang P51

a Mustang polished to within an inch of its life. Having beaten up the runway in the Mustang he landed and taxied right up to the crowd, jumped out and grabbed a microphone: "Any questions?" he asked us. You can't get better than that!

FLYING FORTRESS

Within the hangar is an excellent B17 Flying Fortress presentation. Our industry is all about storytelling, and this exhibit does a great job. You first enter a briefing room, which could have been straight out of any of a dozen airfields in eastern England during WWII. After watching a film briefing, you walk out across the apron to a real Flying Fortress and climb aboard.

Suddenly you're not in a fortress at all, but in a fragile aluminium tube. You begin to imagine how frightened and vulnerable those boys must have felt. As you work your way forward through the fuselage, the bomb doors open and you look down at a video of the land below as the slipstream blows in your face – easy to get vertigo at this point. The cockpit crew are posed, calling ahead on the radio – the space is tiny and feels even more exposed.



The briefing room is themed to resemble a British World War II airfield shelter

Stepping down from the plane into a typical wartime airfield maintenance scene, I could walk right up to the Fortress and run my hands over the tyres and touch the propellers. It just needed Anne Shelton singing *We're Coming In On a Wing and a Prayer* to bring a final lump to the throat.

BOAT RALLY

There was also a classic boat rally on the adjoining lake. Immaculate mahogany hydroplanes with 1,400hp supercharged

engines trailed 50m rooster-tails as they thrashed across the water. Did I mention that I also love old wooden boats?

I was enjoying myself so much, I forgot to check out the F&B offer and shop as we're supposed to do when visiting attractions, which surely is a mark of success.

Did I have a good day? One of the best! Am I going again? You bet! ●

Nick Farmer, managing director, Farmer Attraction Development



NASA's shuttle launch attraction



Rather than just providing information, BRC aims to provide inspiration to visitors of all ages

EXACT SCIENCE



Matt Solari



Carmel Lewis

How do you design an attraction that engages today's media-focused youth while gaining respect from mature visitors? Kathleen Whyman finds out from BRC's Matt Solari and Carmel Lewis

How do you attract different audiences? Carmel Lewis (CL): Young people have very different learning styles and expectations than a more mature audience, who understand the world slightly differently. However, both audiences are looking for the same thing – good is good is good. A great experience is going to translate just as well to a seventh grader as it will to a 70-year-old.

When we work with science centre clients we suggest providing a big, overlay, emotional experience. It's like dunking visitors into the deep end of a pool. You're really immersing them in some kind of focused subject or content. Out of that experience, you have to provide them with the greater depth of content.

As attraction designers and developers, we respect that we're a part of a whole. A science centre has a whole offering. A big emotional experience of the kind that we produce is just as powerful as that one-on-one science experiment that happens between a scientist and a group of 20 kids. Both are equally important to the overall offer that science centres provide to their communities, particularly the children.

Matt Solari (MS): We reach a large audience across different age groups. We strive to fire the imagination of the younger audience. If we can get the children to drag their parents or grandparents to the science centre, rather than being taken there by them, then we've succeeded in the mission. I've had grandparents come up to me and thank us. One young boy at the Kennedy Space Centre made his grandparents take him four times in one week. His grandmother told us that she'd never seen him so excited about something and how happy she was to bring him. That confirms that our approach is working.

What work did you do at the Kennedy Space Centre?

MS: It was a project for NASA at The Kennedy Space Centre Visitor Complex. The challenge all the NASA visitor centres in the US face

is that they focus on NASA's past achievements. These are incredible and worthy of being showcased, but following the space shuttle programme's retirement in August 2011, something needed to be done to engage and inspire a new generation. They were in danger of conveying to the youth of today that the golden age of space exploration had happened and they'd missed it, which isn't an inspiring message.

We sat down and looked at the demographics of the millennials – what are their interests? How do they learn? What gets them excited about things? Surprisingly, our answer came from within NASA.

A group of young NASA scientists and engineers put together a presentation expressing why they enjoyed working at NASA, what their lives are like, what their formative experiences were and how these shaped the way they look at the world. This information helped us translate the objectives of our exhibit at the Kennedy Space Centre into an experience that really resonates with a younger generation. They're engaged with the discoveries rather than being told what to think.

What were the challenges?

CL: We're trying to get kids interested in basic science, so that they want to study and go into career fields that will ultimately support everything from technology to space exploration to all the future fields



The interior of NASA's simulator experience



Visitors experience the sights, sounds and sensations of a real Space Shuttle launch at the Kennedy Space Center visitor complex

that we're inevitably headed towards. Interpreting complex subject matter and engaging children is a challenge for science centres and planetariums, particularly when many are struggling with shrinking budgets. Another issue is that of all the genres of museum attractions, science centres attract the largest audience. They have a lot of people to entertain across a very wide range of ages. And they also have to supplement what's going on in schools. That's a really tall order.

MS: This is the most important factor – before you can begin to impart concepts and information and understanding of a specific science centre's agenda, you have to inspire visitors to be interested. That's the paramount change in the way we approach science centre design. Get them interested, then present your information in ways that allows them to be active participants in the discovery of this information.

CL: Something that science centres have always done well is their on-the-floor programmes where scientists invite children to help with experiments. That's fantastic, but when you've got 750,000 visitors a year you can't give that experience to everyone. We strive to provide that big introductory experience which sparks the flame and makes people want to explore further and get deeply emerged in science.

"Of all the museum genres, science centres attract the largest audience. They have a lot of people to entertain and have to supplement what's going on in schools. That's a tall order"

How do you address these challenges?

MS: We look at the institution's audience, mission and goals and work with the science centre team to dig deep into what's going to spark that inspiration in visitors.

What we came up with for NASA was quite daring. We created a three-choice learning environment. It's a 10,000sq ft (929sq m) space surrounded by 12 massive, digital-projection surfaces. As visitors walk through the space, each of those screens is presenting distilled knowledge in purely visual terms. It's like being inside an iPhone. It's a digital, dynamic experience that's very specific.

But at times, the imagery in the room completely changes to emulate the surface of Mars or the moon. Our goal was to completely immerse people and take them on a journey to somewhere they've never been. It's not about providing information – it's about providing inspiration.

CL: That's the first step – the attention grabber. We made the experience extremely visceral. One of the big challenges, and the potential solution that science centres can really wrap their arms around, is that they've got an extreme amount of content that they're trying to convey.

What we're suggesting is, first offer a big, emotional context – a portal through which they can first be excited on a visceral level. At the same time, beneath those layers, you can't be all sizzle and no steak, you've got to then deliver on that content and be ready to engage them at whatever level they're at.

What's your action plan?

CL: Find compelling ways to focus the content you want. That's hard for science centres because so much is encompassed within the centre. Artfully design and focus the subject matter in different quadrants or parts of the science museum so that there's a clear entry point and something for the audience to easily grasp onto. Offer a variety of types of experiences – physical, intellectual, interactive and emotional.

Matthew Solari is BRC Imagination Art's director for cultural project development and Carmel Lewis is vice president, cultural experiences

DESIGN SCIENCE

A LOOK AT SOME OF THE LATEST SCIENCE CENTRE DESIGN PROJECTS



The interactive exhibits in Harmonious Home allow visitors to examine their carbon footprint

Ningbo Science Exploration Centre, China

DESIGNER: MET Studio,
UK and Hong Kong

MET Studio is masterplanning and designing three galleries for China's Ningbo Science

Exploration Centre, which opens in spring.

The 50,000 sq m (538,000sq ft) new-build centre will focus on the natural world and the laws of physics with an underlying didactic message about how we can best protect the earth, by examining how we live and how we sustain our quality of life on earth. The centre will be one of the major attractions in a new cultural plaza in the city of Ningbo, which will also include an

The Mind Museum, Philippines

DESIGNER: Jack Rouse Associates, US

Due to open early 2012, The Mind Museum will be the first world-class science museum in the Philippines. Striving to be a defining legacy, more than 250 interactive minds-on and hands-on exhibits are designed to present science as entertaining, fun, and engaging.

The two-storey museum is made up of five galleries covering: 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 Small; and The Story of Technology: The Showcase of Human Ingenuity.

JRA's design goal was to share the story of science in everyday life in a way that encourages sharing and understanding, and specifically to teach school groups in new and immersive ways. The buzz phrase soon became Happiness Factor, which reflects an authentic Filipino nuance.



The Mind Museum shows visitors how science affects their lives through the use of interactives

The museum is made up of wide-open spaces with clean sightlines devoid of barriers. The exhibits and hands-on exhibits encourage self-discovery and include all the senses through the use of interactives and immersive environments.

JRA pared down each gallery to its essence and crafted exhibits that would

deliver little discoveries that can be related back to an individual's daily life. The aim is to be relevant to all age ranges from an eight-year-old to a 70-year-old. The end result is a museum that provides guests with a different way to see their world through science and the ways in which science affects their everyday lives.

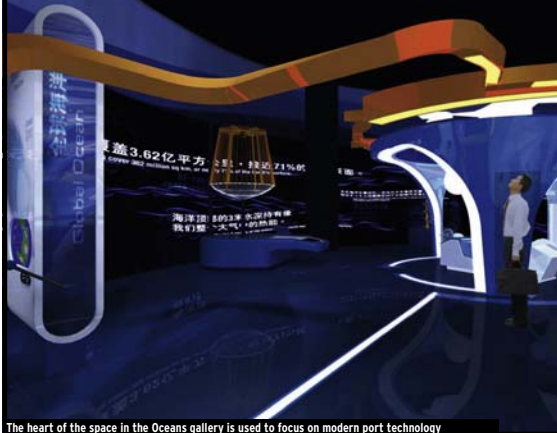


Learn about space in the Universe gallery

IMAX theatre, a children's museum and a performing arts centre. Ningbo, a seaport and one of China's oldest cities, is located on the country's eastern coast, south of Hangzhou Bay.

The three large-scale galleries, each measuring between 2,000 and 2,500sq m (21,500 and 27,000sq ft), are called Universe, Harmonious Home and Ocean. Graphics and communication in the galleries, also created by MET Studio, will be in both Chinese and English.

The Universe gallery looks at cosmology and the origins of the universe, from the Big Bang to the expansion of space, and our means of examining space using space telescopes, space travel and space biomes. Design features include a bungee walk exhibit where real life weight is temporarily neutralised, and a huge projected solar system on the gallery floor. Visitors can interact with stars and black



The heart of the space in the Oceans gallery is used to focus on modern port technology

holes and Wii-style games enable them to see how astronauts train for a mission and deal with g-force and micro gravity.

The Harmonious Home gallery uses interactive exhibitions to consider our effect on the earth and ask how carbon mass contributes to global warming. An impact wall looks at how mass human consumption affects the earth and how what we take out in terms of quarrying and timber-felling correlates with the waste, toxic or otherwise, that we return to the earth.

The Oceans gallery explores the driving forces and principles of the world's oceans. The local theme of ocean trade throughout history and in contemporary society will anchor the gallery, with a major area focusing on modern port technology. Visitors will be able to investigate the rich mineral life and biodiversity of the oceans before immersing themselves in themed areas, looking first at the two major polar oceans and finally at the wonders and unexplored mysteries of the deep ocean.

Moscow Planetarium's Lunarium gallery, Russia

DESIGNER: Kurt Huettinger
GmbH & Co, Germany

Moscow Planetarium opened the Lunarium gallery in June 2011 following the success of its Origins of Science and Astronomy gallery. Huettinger designed and built the interactives, set work and graphics for both projects, with the aim of Lunarium being to combine an industrial space-ship style design with a high-quality museum offer.

Huettinger created a space lab on the moon in which visitors assume the role of astronauts carrying out astronomic exploration. The different parts of the exhibition are clustered within a modular system with hexagonal, spaceship-themed elements. Many of the artefacts were used in space or are replicas of spacecraft equipment. These are displayed in suitcase-style units, as though they've just been unpacked by astronauts on their arrival to the moon.



The different parts of the exhibition are displayed in hexagonal, spaceship-themed units

The honeycomb-like structures were inspired by organic molecules – the benzene ring – which forms a regular hexagon of six carbon atoms. The hexagonal walls, suitcases, backlit graphics and table units can easily be moved around or replaced to cater for different exhibitions in the future.

The layout's design allows visitors to

move freely within the different themed areas, starting with a Journey to the Stars: From the Earth to the Moon (Lunar Laboratory), going on to Mars (Discover Mars), through the Solar System (Interplanetary Journey) to Other Galaxies (Stars and Galaxies), before finally finishing the experience in the Trip to Infinity area.

CASE STUDY

All About Us exhibition, At-Bristol science centre

Emma Cook, exhibitions manager

WHAT IS THE EXHIBITION ABOUT?

The content of the All About Us exhibition at the UK's At-Bristol science centre covers the human body and how the individual systems work in harmony, connecting people with the world around them.

The 680sq m (7,300sq ft) space includes 60 exhibits and a programming space called Live Lab where facilitators and visiting experts can present, demonstrate or engage in dialogue with visitors.

At-Bristol's in-house design team worked closely with Razorbite Design Consultancy to produce a clean, contemporary and freestanding design. Graphics add vibrant splashes of colour, both within exhibit sized panels and large printed wallpaper.

The team was excited about the idea of peering inside the human body to take a closer look at how it functions. This approach guided them towards realistic illustrations at, or near, actual size, where layers are stripped off to reveal the workings within and annotations provide real imagery and descriptions/explanations.



All About Us includes 50 hands-on exhibits



Visitors discover how their brains and bodies work together in At-Bristol's £1.5m exhibition

One major challenge for the team was the decision to include a real human brain to create a sense of wonder, with space to consider the physical basis of people's thoughts, emotions and personality.

The team worked closely with the University of Bristol to overcome the challenge of donation, and the designers identified a sophisticated etched glass tank to 'place' the organ within the outline

of a body to provide a reminder that the brain represented a person, a library of memories, thoughts and feelings.

Another key challenge was the linking of the physical exhibits to the All About Us website. Using barcodes on the visitor's ticket and some clever software, a number of exhibits were chosen to link directly with the site under the name Explore More to inspire further research and activities.

Odysseum Science Adventure, Cologne, Germany

DESIGNER: P&P Projects

Claiming to be the first fully themed science centre in Europe, all exhibits at The Odysseum are integrated into, or part of, the scenery rather than being displayed in a traditional gallery offer. Designed by P&P Projects, the €11m (£9.4m, \$14.8m), 4,000sq m (43,000sq ft)

science centre is divided into six themed areas covering evolution, space, the electronic revolution, modern medical science, children's science and outdoor learning.

The aim of the design is to combine learning with play so that children don't distinguish between the two, but are educated while having fun. For example, visitors learn about evolution in a gallery themed as a forest full of trees and rocks. Guests have to find the exhibits, which are hidden in the hollows of trees, among the rock work or inside caves. The exhibits lead visitors through the journey of the beginning

of life on earth, including an unexpected visit from an animatronic Tyrannosaurus Rex, to the progression of man from apes – highlighting that there are still many similarities, such as facial expressions. The other themed areas include being in space, a medical laboratory and the inside of an electronic device.

As well as the interactive exhibits, there are also many play areas plus an enlarged Playmobil city for children to explore.

The centre will be developed every three years and P&P Projects is currently upgrading the medical science laboratory. ●

*Exhibits and environments
that engage audiences
on a personal level....*



The Mind Museum • Taguig, Philippines



JRA plans, designs and realizes exceptional visitor experiences for entertainment, cultural, sport and corporate clients around the world.

www.jackrouse.com

TIME IS MONEY

At a time when consumers are spending less, how can operators encourage visitors to spend what they do have at their attraction?

Alan Love offers some advice on revenue building in a flat market

It has long been known that, within limits, increasing visitors' dwell time increases their propensity for secondary spend in the attraction's retail and refreshments outlets. But how do operators attain that outcome?

Among more than 30 metrics on the ALVA Quality Benchmark Survey – which is produced for the Association of Leading Visitor Attractions in the UK – BDRIC Continental measures visitors' rating of what there is to do and what there is to see at attractions. The survey also measures visitors' dwell time. We've found that both are positively correlated with visit duration.

Adding one per cent to the proportion who rate what there is to do as excellent adds about 1.2 minutes to the average visit. And adding one per cent to the proportion who rate what there is to see as excellent adds about 0.8 minutes to the average visit. And yes I do know that correlation is not the same as causation.

The survey also measures their use of retail and refreshment outlets. We can demonstrate from this the rate at which increasing visit duration adds to refreshment purchase rates and, to a lesser extent, to retail purchase rates.

Adding one minute to dwell time adds 0.27 per cent to the proportion who buy refreshments. Adding one minute to dwell time adds 0.15 per cent to the proportion who buy at retail outlets on-site.

This information becomes important when you start to apply spend per visitor per hour on retail and on refreshments. This is one of the financial measurements that analyst Lesley Morissetti, director of LM Associates, calculates on ALVA's Financial Benchmarking survey – and one which any attraction can calculate for itself.

There is a financial value to increased dwell time, and this can apply in free and paid-for attractions alike. Increasing visitor spend may not be easy in the next 12 months, so investment in the core product may help build secondary spend.

WORD OF MOUTH

We have some evidence that word of mouth and websites vie for the crown as the most important source of influence on visiting an attraction.

These two strands have been brought together in recent years through web based review sites such as TripAdvisor. Furthermore, the apparently inexorable rise of Twitter and Facebook (complete with pictures) seem to be increasing the intensity and immediacy of recommendation (or deterrence). Measures of mention rates are well established, but measures of sentiment are still a work in progress – not least



(Above) review sites such as TripAdvisor are increasing the intensity and immediacy of recommendations – or deterrence

given people's tendency towards irony. For example, "£3 for an ice-cream? Great!"

The ALVA Quality Benchmark survey measures claimed willingness to recommend. And what do we find? You guessed it. Positive correlations between recommendation and the ratings for what there is to do and for what there is to see.

Adding one per cent to the proportion who rate what there is to do as excellent adds about 0.66 per cent to the proportion who claim they will definitely recommend. And adding one per cent to the proportion who rate what there is to see as excellent adds about 0.68 per cent to the proportion who claim they will definitely recommend.

You can estimate a financial value of



Increasing visit duration adds to refreshment purchase rates

“Measures of mention rates are established, but measures of sentiment are a work in progress, not least given Britons’ tendency for irony – “£3 for an ice-cream? Great!”

recommendation. Compare the proportion of your visitors influenced by recommendation with the proportion influenced by advertising. Calculate the cost per visitor for advertising and apply that to visitors influenced by recommendation to get a cost equivalent. (Similar to the calculation of PR valuation against advertising.)

You can also measure the ratio between the proportion of your visitors who recommend and the proportion to get an indicative conversion rate. Now you can start to model the primary value of product investment on recommendation.

CONCLUSION

Improving visitor rating of what there is to see, and especially of what there is to do, can lead to increased dwell time and increased secondary spend. It can also lead to increased recommendation rates, which may lead to increased volume, making marketing budgets stretch just that little bit further.

In straitened times, batten down the hatches on investment might be the right solution for your site. But it's worth considering the potential return on investment of improving the visitor experience that comes from enhancing what there is to do or to see at the attraction by taking into account its impact on secondary spend and on visitor volume and value. ●

Alan Love, research director, BDRC Continental. Analysis taken from Visitor Attractions Trends in England 2010 by BDRC Continental on behalf of VisitEngland



Increasing visitors’ ratings of what there is to do and what there is to see can increase secondary spend

ADVENTURE WORLD WARSAW

Work begins on Poland's first destination theme park this spring with an opening date of October 2014. Sebastian Barbasiewicz describes the project to Kathleen Whyman.

What is Adventure World Warsaw?

Adventure World Warsaw is the first investment of its kind in Poland – a destination theme park offering 25 attractions, two hotels with a joint total of 800 rooms, the country's largest aquapark, plus an entertainment area with cinemas, restaurants, shops and clubs.

Work begins on the park in July 2012 with an opening date of 15th October 2014. The park will be able to accommodate 20,000 people at a time and has a theme of myths and legends. We're anticipating receiving three million visitors a year.

Sebastian Barbasiewicz,
vice president and member
of the Management
Board, Las Palm LLC

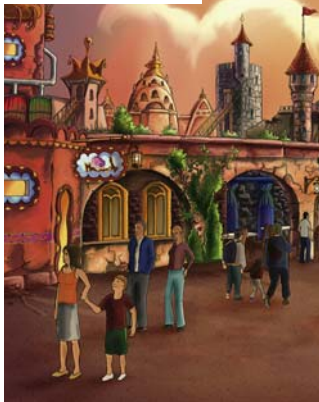
Operated by Las Palm, which was set up to run the project, the amusement park will comprise five themed islands centered around Adventure Harbour. Their working names, at the design stage, are: Lost Kingdom; Creature Lagoon; Castle Island, Land of Legends; and the Polski Plaza.

A variety of attractions will be available on each island, including super coasters, waterslides, wave pools, interactive fountains, boat cruises and carousels.

The year-round part of the park will include indoor playgrounds for children, interactive shows and animations and a huge aquapark. The entire park will be set against a scene of fairytales and legends.

Where did the inspiration come from?

It was Las Palm's president Peter Jan Mulder's dream to create the first real amusement park in Poland. He came up with the idea more than 15 years ago.



We asked JoraVision to create a project that will combine international amusement trends with the Polish culture. They took a close look at Polish myths and legends and entwined them with well known fairy tales

ABOUT THE DESIGN

JoraVision's director of development and design, Marjolein van de Stolpe, describes Adventure World Warsaw

"The design for Adventure World Warsaw was inspired by Poland itself, which is a great country that's waiting for a beautiful theme park. With more than 38 million people living in Poland and no real theme parks, there's a genuine desire for one. As a design company we firmly believe that any design starts with a great story. AWW is based on myths and legends from all over the world, which will truly immerse guests.

Service is a very important element of Polish culture. Their service level is higher than that in most western European countries, which we've taken into account in all our food and beverage designs.

The client has requested high-end quality and experiences. The park will feature some familiar rides, such as a great wave



Joravision created the masterplan for Adventure World Warsaw plus all of the park's design and theming

swinger, as we believe rides like these are the basis of a park, but we're also working on some innovative dark rides and coasters with many special features, so that the park has a premium offer.

Our main challenge is that Poland isn't fully familiar with the theme park business yet. And of course time is always a

challenge. When a large number of companies are involved, there's a need for quick information, but the design process always requires thought and time, so it'd be great to have more hours in a day.

We're also working on the park's theming, which we'll continue to do over the next 12 months."



and elements from different cultures. They created a powerful theme which includes European and South-American legends that are very visual and easy to identify.

Why was the theme chosen?

Myths and legends are powerful stories that activate people's thoughts and emotions. They're inspiring and encouraging, which is why we remember them so well. We want visitors to feel happy and relaxed as soon as they enter the world of adventure that we're creating.

Who is the park aimed at?

The park is aimed at all ages. We're developing attractions to entertain both adults and children. Some of the coasters and rides will only be suitable for adults, but throughout the five islands there will be enough attractions for everyone.

Why were AGS Architects chosen to design the park?

Apart from their great knowledge, excellent quality of service and experience on architecture, AGS Architects' main advantage was that they have developed numerous projects for the leisure and amusement industry. These include the themed Efteling Theater in Germany and Aquapark Zoetermeer in Holland.

Work begins on Poland's first destination theme park, Adventure World Warsaw, in July with an anticipated opening date of October 2014

Who will be the key audience?

The first group will be the 11m Poles who live within 250km of the park.

The location makes it easily accessible both from Poland and neighbouring countries. Grodzisk Mazowiecki County, where the resort is being built, is only a 30-minute drive from Warsaw, which has an international airport with a well-developed flight network that will bring in foreign customers. The park is located by the international A2 highway (Berlin-Moscow) which will be finished by the time we open. That means it will be easily accessible by car from different regions of Poland or from Germany, Ukraine, Slovakia or The Czech Republic.

What challenges have you had?

The first was the location. We wanted to be located in the heart of Poland, near the airport and railway. The first location we chose was Zlotoklos near Piaseczno, 20km from Warsaw, but this didn't work out.

Grodzisk Mazowiecki was our next choice and we gained great support from the authorities, especially the Mayor, Grzegorz Benedycki. This was essential in securing the 240-hectares land needed for the investment.

But the greatest challenge is the timing. We open in 2014, which is a tight deadline.

How will this park be different?

There are no amusement parks of this scale in Poland, so there's nothing that can compare to Adventure World Warsaw.

How much will entrance cost?

A family ticket – two adults and two children – will cost approximately €100 (£84, US\$130). We believe that this price is fair and affordable for our target group.

How can the park be developed?

We have secured enough land to develop the second phase of the project, if the market's response is adequate.

The second phase will involve another theme park, an extensive entertainment village, a conference and business centre and a luxurious wellness centre. ●

See our news report on page 14, which highlights Adventure World's plans to open a second theme park in Abu Dhabi.

WINNING STORIES



The 18th annual Thea awards celebrate excellence in storytelling in the industry. We look at the winning attractions

Rewarding excellence in storytelling that supports the creation of compelling places and guest experiences, the TEA's (Themed Entertainment Association) Thea Awards reinforce the value of experience design and themed entertainment approaches to engaging people worldwide.

Now in their 18th year, the annual awards recognise large and small

accomplishments and outstanding achievements of projects that demonstrate the power that the creation of compelling places and experiences can have on the guest and visitor experience.

Announced in November, the awards will be formally presented on March 17, 2012 at the 18th Annual Thea Awards Gala at the Disneyland Hotel, Disneyland Resort, Anaheim California, US.

THE BUZZ PRICE THEA AWARD FOR LIFETIME ACHIEVEMENT

JOE ROLDE

Rohde is a 30-year veteran of The Walt Disney Company, starting his career as a model designer on Epcot, and continuing with projects for Disneyland Park in Anaheim, California, Walt Disney World Resort in Orlando, Florida and Disneyland Paris. Joe led the team that conceptualised, designed and built Disney's Animal Kingdom at the Walt Disney World Resort. He continues to oversee new attractions for that park and is also responsible for the creative design and content of Aulani, a Disney resort and spa, at Ko Olina, Oahu, Hawaii, which opened in August 2011.



The judges say: "The challenge of creating Disney's Animal Kingdom, a park with a strong wild-life conservation message, involved years of research and negotiation with constituents from the scientific community, the world of zoos, and representatives of indigenous communities involved in the stories created in the park. In the process of developing the park itself, Rohde was instrumental in the development of the Disney Worldwide Conservation Fund, which has supported more than 180 non-profit organizations in 111 countries totaling nearly \$18m (£11.7m, €14.1m)."

THE THEA CLASSIC AWARD

PUY DU FOY: LE GRAND PARC AND CINÉSCÉNIE VENDÉE, FRANCE

Puy du Fou includes two independent attractions. Le Grand Parc is an assembly of picturesque villages based on the history of the region, each with a spectacular live story presentation, running at approximately 30 - 40 minutes.

Cinéscénie is a night time spectacular involving more than 800 cast members,

hundreds of animals, and special effects including programmable fountains, projections on buildings and water screens, pyrotechnics, programmed lighting, fire effects, lighting, moving sets (some of which emerge from under water) stunts, horsemanship, fencing, mock battles and more. (See our feature on p34)



Puy du Fou's incredible effects, many of which involve water, have earned the park the Thea Classic Award

THEA AWARDS FOR OUTSTANDING ACHIEVEMENT

ATTRACTION

SPACE FANTASY THE RIDE UNIVERSAL STUDIOS JAPAN

Space Fantasy The Ride is an interior spinning roller coaster featuring 19 solar shuttles that each seat eight people.

Riders are propelled through colourful vistas and encounters with characters

including GBOT, who guides visitors through the experience, the playful sun fairies and the princess of the solar system Cosmia. The mission is to gather positive energy and re-energise our sun.

ATTRACTION ON A LIMITED BUDGET

BARNAS BRANNSTASJON (CHILDREN'S FIRE STATION) KONGEPARKEN, NORWAY

In this attraction at Kongeparken, a theme park in Stavanger, Norway, children act out the fantasy of being a firefighter. (See AM Q3 09)

They receive training as recruits and are then called upon to put on fire fighter jackets, slide down a fire house pole, board a giant toy fire engine and power the engine, making it go faster by

pumping as it races to the fire. The fire is safely created by fog in a giant dolls house-like structure.

Children then pump and aim water cannon to put out the fire. After the experience, everyone gets a certificate declaring them to be a fire inspector. On the back of the certificate is a list of items to be inspected in their own home.

Universal Studios Japan has won a Best Attraction award for its Space Fantasy The Ride experience

ATTRACTION

ARTHUR, L'AVENTURE 4D FUTUROSCOPE, FRANCE

Visitors to Arthur, L'Aventure 4D find themselves immersed in the underground world of the mythical Minimoys creatures. Even the queue area is an organic, underground world of soil, tunnels, roots and creatures. Visitors enjoy the 4D sensory experience aboard a

25-seat, insect-shaped motion base vehicle, which mimics a ladybird's flight as it flies through the Minimoys' world.

4D elements include the feeling of flying through the threads of a cobweb, being brushed by a frog's wet tongue and colliding with an angry bee.

ATTRACTION REFRESH

STAR TOURS - THE ADVENTURES CONTINUE DISNEYLAND CALIFORNIA, US

The judges say: "This nomination recognises the complete reimagining of Star Tours, a simulator experience first installed in 1987. The challenge was to remain true to the vivid stories while making use of new technical tools and guest interactive capabilities and making the experience suitable for a new generation of fans without alienating the extremely loyal *Star Wars* fan base.

The refreshed attraction has succeeded in both. For the guests, the most compelling feature is the variable content that affords multiple storylines, locations and characters. This element of surprise is driving multi-generational audiences to revisit to get a shot at exploring different vistas into the many realms of the *Star Wars* Galaxy." (See *mystery shopper feature in AM Q4 11*)

Star Tours' update has allowed for the use of new technology which wasn't available in 1987



MUSEUM EXHIBIT

YOU! THE EXPERIENCE MUSEUM OF SCIENCE AND INDUSTRY, CHICAGO

This 15,000sq ft (1,400sq m) exhibit is a celebration of body, mind and spirit which explores personal health and wellbeing. It showcases the extraordinary workings of our bodies, the effects our lifestyle choices have, the impact of our environment and the role of medical technology. More than 50 interactives engage visitors across a spectrum of topics, from birth and reproduction and individual organ systems to diet, medical innovation and ultimately aging and life expectancy.

ADDITIONAL WINNERS

NatureQuest at Fernbank Museum of Natural History, Atlanta (Museum Exhibit)

The Changing Climate Show at Science North (Attraction on a Limited Budget)

Ghost of the Castle at Louisiana's Old State Capitol (Cultural Heritage Attraction on a Limited Budget)

The Magic, The Memories, and You! at Walt Disney World's Magic Kingdom

Yo México, Celebration of the Century of the Mexican Revolution, Mexico City

The House of Dancing Water at City of Dreams, Macau (Live Show Spectacular)

FoodLoop at Europa-Park

Cruise Line's Ship - Disney Fantasy ●



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TurtleTrek's 360-degree dome theatre offers visitors an immersive experience of life under the ocean

NEW YEAR RESOLUTIONS

Conservation and ancient history, as well as pure entertainment, are the content of some of this year's new 3D offers, proving just how versatile this medium is

TURTLETREK

This spring, SeaWorld Orlando will debut TurtleTrek, a state of the art entertainment centre showcasing the sea turtle. Aiming to create interest in this vulnerable reptile, a 3D animated film will be shown in a 360-degree dome theatre. Visitors can then see actual sea turtles, many of which were rescued by the park's animal team, in two neighbouring habitats.

Using new technology, the visual conservation experience showcases the plight of

the sea turtle and the incredible life journey they take from hatching on a beach and making the mad dash to open waters, to the dangers and hazards they face as they mature and return to the very same beach to lay their own eggs.

The 3D film is shown in a 360-degree dome theatre to give a completely immersive experience of a turtle's eye view of the ocean's wonders. A fine silver coating on the dome allows each screen to focus the projection light back toward the guests, so every fleck of silver is like a tiny mirror.

Each frame of the film has approximately 26 million individual pixels and the film is shown at 60 frames-per-second.

The sound system includes 22 audio channels that have been mixed on-site to allow for 3D sound and pinpoint placement of audio effects.

More than 12 species of sea animals – from the hero sea turtle, to thousands of fish and down to the smallest anemone – are brought to life for the animated film, with each one having been approved by SeaWorld educators and animal experts.



The 4D experience opens in March at Alton Towers and Gardaland, with more to follow

ICE AGE

Twentieth Century Fox Consumer Products has teamed with SimEx-Works and Merlin Entertainments to bring the blockbuster franchise *Ice Age* to life with *Ice Age Dawn of the Dinosaurs – The 4D Experience*.

The attraction will debut in March at two of Merlin's theme park resorts – Alton Towers in the UK, and Gardaland in Italy – when they open for the 2012 season. This sets the groundwork for a long-term, location-based

rollout of *Ice Age*, one of Fox Consumer Products' most successful family franchises.

Ice Age Dawn of the Dinosaurs – The 4D Experience is an immersive entertainment attraction that will combine 3D film footage from the third movie in the franchise, with an array of synchronized physical effects. On leaving the theatre, guests will find themselves in a themed area where they can meet costumed characters and buy branded merchandise. Alton Towers Resort will also feature two interactive *Ice Age*-themed bedrooms at its Splash Landings Hotel.

Creating a prince isn't easy, as *The Witch* discovers

THE WITCH

Stereodome Pictures, based in LA, has launched a 4D experience called *The Witch*. The humorous family film is about a witch who wants to use magic to create her prince, but instead finds herself on an exciting journey which she has to survive.

The 11-minute film opens this spring and includes leg ticklers, 3 DOF motion, water spray, vibration, being blasted from different directions and seat pokes.

VISITORS CAN SEE GRAPHIC VISUALISATIONS OF THE MUMMY'S FACE AND SKELETON, DESPITE THE FACT THAT THEY REMAINED ENCASED WITHIN HIS COFFIN

MUMMY: THE INSIDE STORY - SECRETS OF THE TOMB

The insides of an ancient Egyptian mummy can now be seen via 3D projection at the British Museum's new international exhibition tour *Mummy: the Inside Story - Secrets of the Tomb*.

Currently on display at the Virginia Museum of Fine Arts, US, the 3D experience focuses on one of the British Museum's most intriguing ancient artefacts – the mummy of Nesperennub, an ancient Egyptian priest who died in approximately 800 BC.

More than 100 artefacts from the British Museum's Egyptian collection feature in an immersive film using a 3D stereoscopic 4K resolution visualisation system. This allows visitors to decipher Egyptian symbols, discover the embalmers' secrets and explore the inside of the mummy's body.

Non-invasive x-ray and Computerised Tomography (CT) scanning techniques are used to look inside the mummy without disturbing its wrappings in any way.

The experiment provided an insight into the complex mummification process and Nesperennub's life in ancient Egypt, while also allowing museum staff to reconstruct his facial features. Independent technology and media consultancy Visual Acuity was then engaged to advise on a 3D theatre display, which allows visitors to see graphic visualisations of the mummy's face and skeleton, despite the fact that they remained encased within his coffin.

Projection and display technologies show graphic representations of the outer coffin, the cartonnage case that sits inside it and holds Nesperennub's remains, the skeleton and the jewellery with which the body was adorned prior to embalming plus a detailed representation of his face.

The show is narrated by actor Patrick Stewart and covers many new discoveries. The exhibition will be on display in Virginia until March before travelling to the Brisbane Queensland Museum in Australia. ●



The latest 3D projection technology is used to create a realistic experience, previously unseen by the public

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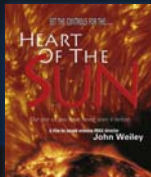
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The influence horticultural products have on everyday life is the focus of Floriade 2012's Dome show. Sky-Skan's Glenn Smith describes how the immersive experience is achieved



PLANT LIFE

(Above left to right) Floriade 2012 takes place from April to October in The Netherlands. It aims to change the way people view horticulture

In Venlo, The Netherlands, the grounds of the Floriade World Horticultural Expo 2012 are rapidly taking shape. Held once every 10 years, Floriade is a showcase of world-wide horticultural entrepreneurship and is expected to attract more than two million visitors during its six month-long operation. One of the most eye-catching attractions is The Dome, a 360 degrees Full Dome Projection Cinema, commissioned by

(Below) The Dome pavilion will feature a five-minute film showcasing the impact horticultural products have on our wellbeing and everyday lives

the Nederlandse Tuinbouwraad (Dutch National Horticultural Council).

THE DOME

The brief for The Dome was that it should be able to accommodate up to 30,000 visitors a day and its theming must reflect the enormous influence horticultural products have on people's everyday lives.

DST Experience Communication, Sky-Skan Europe and Zendome Berlin took up the challenge and won the bid with their concept of a high-capacity movie theatre in which visitors are immersed in the world of horticulture during a five-minute show.

The Dome pavilion is the first thing visitors see as they walk through the entrance

of the 66-hectare Expo grounds. Once inside, a five-minute immersive show introduces them to the fascinating world of horticulture. Visitors experience the impact of the sector's products on their wellbeing, and learn about the Dutch dedication to delivering the perfect products to enable them to do this on a daily basis.

THE DESIGN

Marcel Goossens, director of DST Experience Communication, says he believes that experience is the key to effective communication. This philosophy served his company well when it developed the 2002 pavilion for the Dutch Horticultural Council. DST is responsible for the overall concept, design, storytelling and operational side of The Dome.

Zendome is a Berlin-based company and is responsible for the dome structure. The company creates harmonic, organic temporary structures based on the timeless design of the geodesic form that Buckminster-Fuller popularised early in the 20th century, but using modern technology, materials and design. The space-age geodesic structure is a marvel of engineering with its modular construction and elegant architectural features. A glistening silver membrane is stretched over the stainless-steel dome structure. The Dome is 20m (65.6ft) in diameter and occupies a space of about 300sq m (3,200sq ft). This





particular configuration includes a unique hemispheric projection screen inside, achieved by way of an innovative negative pressure bladder fixed to the interior geodesic frame. Equipment is hidden in the periphery and visitors stand in the centre with handrails for support during the five-minute presentation.

THE EQUIPMENT

Sky-Skan is a planetarium and dome projection specialist. We're furnishing The Dome with all of its hardware, software and audio-visual equipment. Working from our Munich-based European headquarters, we're installing Definiti 4K Projection System – a configuration using two extended resolution digital cinema projectors from Sony with Sky-Skan custom Definiti HD optics. The system delivers razor sharp images in 12 megapixel resolution to the dome screen. The Definiti Graphics Servers will provide eight parallel streams of graphics in greater than HD resolution. Multi-channel surround sound and ambient LED lighting contribute to the experience as people arrive and leave.

Although our core business is planetarium and space theatres for science centres, we regularly work on expo projects – we provided the AV and system design for the award-winning Saudi Arabia Pavilion at EXPO2010 in Shanghai. For the Floriade project, we're using a standard dome theatre and theming it with horticulture, which creates a whole new concept. The vivid colours and imagery of flowers and plants in an immersive theatre setting are stunning.

The immersive dome show itself is being produced by Metropolis Film in Utrecht



and combines computer graphics with live filming. Metropolis created a special camera rig composed of multiple HD cameras to capture the 360-degree scenery in the necessary resolutions.

THE CONSTRUCTION

The team have worked together for two years and the dome frame was erected on the plaza in December. The staff at Zandome are currently waiting for The Netherlands' notorious winds to settle down so that they can stretch the huge outer membrane over the frame.

Once that's complete, the dome's design and construction should enable it to withstand hurricane-force winds. We'll start our part of the installation mid-February, then there will be test runs and content refinement before the expo opens April 5th.

(Above) The Expo includes Floriade Kids – a learning programme about horticulture and sustainability, which is being followed by 200 schools

After the October 7th closing, the show grounds will be converted to a green industrial estate. The Dome and systems will be dismantled and re-used in Bloomin' Holland, a new theme park near Amsterdam Airport that's expected to open in 2014. This helped the choice of design, as everything needs to be easy to disassemble and move to another location – it's 100 per cent recyclable. ●

Written by Glenn Smith, GM of Sky-Skan Europe with Marcel Goossens, director/owner of DST Experience Communication



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Mild experiences need to be incorporated in countries where parents are wary of their children taking risks



Stephen Galbraith

CULTURE CLUB

Understanding and respecting local cultures is paramount to operators expanding into new regions. Consultant Stephen Galbraith explains how to create a successful waterpark that appeals to its both residents and tourists

Having worked in the attractions industry in Malaysia, Vietnam, Hong Kong, China, Singapore, Australia, New Zealand Dubai and Jeddah, I've encountered many different cultures. To provide a successful attraction, both for visitors and staff, these cultures need to be understood and respected.

When working in Asia or the Middle East, operators must understand each location based on climate and weather conditions and the visitors' safety and comfort within the environment they're creating. They must also research what is suitable and

acceptable to the locals. For example, in some countries people have very limited or no knowledge of how to hold their breath underwater. In these cases, considerable training of staff and design of pools and slides need to be planned well, with less extreme experiences installed.

Most people who live in Asian countries want to go swimming because it's hot, but need to avoid the sun, so indoor or shaded waterparks are essential. Some cultures will require that people wear clothes in the water, so further safety precautions will be needed in these environments. In countries where a one-child policy is in place,

the parents can become very protective of their child and unwilling to let them take risks. In this instance, attractions need to incorporate more mild experiences and operators should be conscious of showing the parents that their park is safe with good trained staff to earn their trust.

Another important aspect when creating a waterpark is ensuring that the theme is relevant to the area and location it's being built in. However, once inside there can be western aspects, providing they are relevant to the residents.

DESIGN

Design is very important when taking into account the cultural differences. This ranges from the park's layout, to toilet facilities, to entry and exit differences.

In Iran, waterparks have to allow for separate areas for female and male guests, which is a big added cost to the project. Operators need to understand that in some areas, waterparks are a completely new concept and many visitors will be unable to swim, so intense lifeguard training will be required. Extreme rides should be avoided in these regions and more family oriented experiences installed instead.

"IN COUNTRIES WHERE A ONE-CHILD POLICY IS IN PLACE, THE PARENTS CAN BE UNWILLING TO LET THEIR CHILD TAKE RISKS. OPERATORS NEED TO SHOW THE PARENTS THE PARK IS SAFE"



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WHITEWATER
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WATERPARKS



► One very important aspect when designing a tourism attraction is to adapt the experience to suit the region. I witnessed the opening of a park in Hong Kong which underestimated the power of the tour operators out of China. Open-dated tickets were sold to the tour market, which led to thousands of people being turned away when so many tour groups arrived and the park wasn't big enough to fit them all in. The tour operators who control this market weren't keen to promote this park again.

To ensure they're getting it right, operators should work with the local community and government. A consultant with experience in the area can help with advice. I've worked for wealthy clients who want the biggest and the best, so I have to find out if they want to make money or complement the existing businesses in the area. In some cases, attractions are built to provide family time for the locals and the intention isn't to glean big profits. This doesn't happen very often though. My advice is to remember that there are many attractions around the world that aren't making money, so do your homework before you proceed.

BENEFITS

The main benefit of building in these markets is that they have very large populations - for example, China and India. If a waterpark is set up and operated correctly, it could receive very large daily guest numbers with the potential for secondary spend within the park. Construction and labour costs are also usually dramatically cheaper than western world start-up costs.

One very important aspect is that if you employ westerners - or ex-pats - in your waterpark, they must have exceptional people skills and work with the locals well.

Waterpark operators need to ensure their offer will suit the mix of cultures plus a mix of locals, tourist and ex-pats

Some ex-pats are lacking in this area and can treat the locals as if they are a lower class, which is not the case at all. This has been known to happen in Hong Kong, but the situation is changing as the local Hong Kong Chinese take control again. It's very important to employ local staff to create the full experience and also to assist with relating to the visitors. Initially staff will need to be trained up by experienced people who will hand over to them eventually.

THE FUTURE

During the last decade there has been a huge demand for both local and international waterparks with very high standards and a variety of attractions, particularly for the family market. This demand continues to accelerate. In the future there will be new markets such as Iran and Vietnam plus expansion in the existing regions. Operators will however become more cautious as they gain a better understanding of this business and will look for genuine products rather than being fobbed off with typical sales pitches.

For anyone considering entering this market, the key points to remember are location, back drop, future growth opportunities and the mixture of cultures as well as the mix of locals, ex-pats and tourists. Finally, deliver world-class service incorporating great local staff and training.

Stephen Galbraith, sales and marketing manager, Australian Waterslides and Leisure

WATERPARKS NEWS



Guests can follow different paths each time they ride

POLIN'S MAGIC SPHERES

Magic Sphere is Polin's latest addition to its waterslide series. At 24m (78ft)-high, it has a spherical geometrical shape, which can be themed or provided in any colour. The ride uses a four or six people raft. Riders travel through a tunnel before being dropped into a sphere at an angle of 32 degrees and at a speed

of 50km per hour (32 mph). Auditory, visual effects can be added. Riders travel along another tunnel slide then finish the experience in a splash pool or a dry-out.

The ride, which is patent pending, can be provided entirely open, partly open or completely enclosed. The product can be coloured or translucent and entry options include a conveyor or tower.

WHITEWATER WEST'S AQUACOURSE

Launched at IAAPA in November, AquaCourse is WhiteWater West's wet and dry obstacle course, designed for the entire family. The elevated multi-level play experience allows users of all ages and skill levels to traverse through a course of ropes, towers, bridges and zip lines while getting drenched by, and drenching others with, interactive AquaSpray elements and new AquaCourse components.

The closed tracking harness safety system allows guests to challenge themselves with the Sky Trail Ropes Course and CTS Zip Lines. Visitors can choose to walk through the Adventure Trail portion of the course instead and spray others from the water features.



AquaSpray elements enable guests to interact with one another

The patent pending ride can be elevated above terrains including other attractions, slopes, rivers, pools or buildings. It is suitable for both indoor and outdoor attractions.

EMPEX WATERTOYS' AQUACLONES

EmpeX has added to its water playground line of products with a series of interactive spray clowns called Aquaclones.

The features have interactive hand wheels or push buttons which change the spray pattern from one location to another when they are activated. For example, water sprays from the clown's buttons, their hair, out of their pockets or creates a spinning top on a hat.

Fabricated from rugged fibre-glass and specialty plastics, the Aquaclones have low electrical and heat conductivity and have a lifetime corrosion warranty.

The Aquaclones are part of EmpeX's AquaCircus water playground product



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Interactive games, social media elements and video dramatisations are enhancing audioguides and apps.

Kathleen Whyman looks at some of the latest offers



ANTENNA
INTERNATIONAL

Antenna International has created an app to accompany the major touring exhibition *Miró: The Ladder of Escape*. The exhibition of surrealist painter Miró's work brings together more than 150 paintings, prints and sculptures from collections around the world. Previously displayed at the Tate Modern in London, UK, the exhibition is now at the Fundació Miró in Barcelona, Spain.

Antenna's on-site multimedia guide, available on iPod Touch players, is able to show visitors rarely seen preparatory sketches from the Fundació Miró's archives and zooms in on details that help visitors to better understand the artist's use of symbols. Featuring audio commentaries, the guide also shows contextual images of works not displayed in the exhibition and photographs of real life objects or people and places that reveal Miró's

inspirations, influences and evidence of how he found his own unique style.

Miró's life and career is examined over several decades revealing aspects of his personality, as seen in the video of him working on his *Burnt Canvasses*. There is also an animation piece based on one of Miró's *Constellations*, where the work comes to life, set to poetry and music by JS Bach.

The multimedia guide Antenna designed for the Tate included commentary by the gallery's curators, while the Spanish version offers visitor information about the Fundació Miró building. The multimedia tour is available in Catalan, Spanish, English, French, Italian and German.

Antenna identified that visitors often want to download a museum app on site, especially for a temporary exhibition. The challenge was that a 3G network only allows apps with a file size of up to 20MB to be downloaded, otherwise a WiFi connection has to be used. Antenna's apps tend to be quite large (anything from 100–300MB) because of their amount of high res images and videos.

To get round this, Antenna proposed a solution where the user downloads an app framework into which content is streamed via 3G or WiFi, making the app light enough to download on-site. All the heavy content, such as audio and video, resides on a server and is streamed to the




The Tate Modern's app includes commentary from gallery curators

app for instant playback or is downloaded into the app to access at a later time. The content resides on a remote server, not in the app itself, allowing the client the flexibility of being able to update and add


to the content at any time. This keeps the app content fresh, relevant and ongoing, even after the exhibition has closed, therefore enhancing the visitor experience.

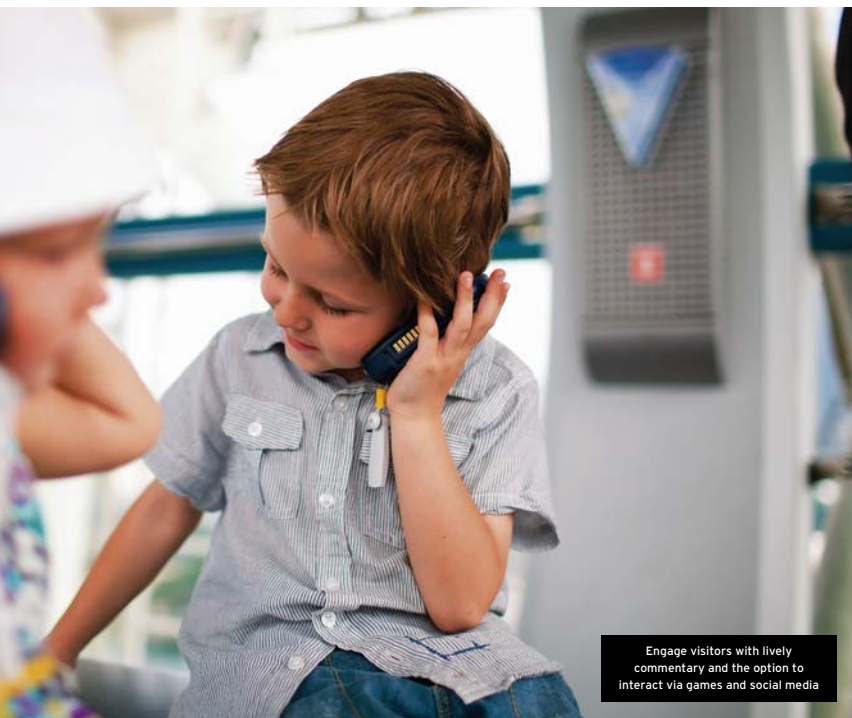
This interpretation platform can also reach an audience that can't physically visit the exhibition, whether that's in its hosting country or the other side of the world.

Antenna has developed many iPod and smartphone apps for galleries, including: The National Gallery London; Van Gogh Museum Amsterdam, the Netherlands; V&A Museum, UK; Centre Pompidou Paris, France; De Nieuwe Kerk Amsterdam; Tropenmuseum Amsterdam; University of Birmingham, UK and Bode Museum Berlin.



The content resides on a remote server, not in the app itself, allowing the client to update and add to the content at any time





Engage visitors with lively commentary and the option to interact via games and social media

IMAGEMAKERS INTERPRETIVE DESIGN & CONSULTING



The Walls Quest app combines facts with maps and multimedia and a social location game

Heritage interpretation consultants Imagemakers has created i-explore, an app engine designed to help the heritage sector embrace digital technology and increase learning and participation. i-explore is not an app in itself, but is a platform which powers heritage apps. i-explore is based on the game I Spy and combines visitor information and multimedia with game dynamics.

The self-guided tour connects key historical points or landmarks and provides historic, social or cultural facts. Interactive activities include fun facts, quizzes, image games, video and audio clips, interactive maps, uploading photos and the option to complete challenges along the route to win shields and score points. A sharing functionality via email, Twitter and Facebook invites users to engage with the site and record and share experiences.

A recent project that Imagemakers has worked on is Explore the Walls, which aims to restore and re-interpret British city Chester's iconic walls and towers. To complement this, Imagemakers created the Walls Quest app, which is powered by i-explore and will be available to download from March 1st.

Combining factual information with maps and multimedia, users can play a social location quest game that enables them to unlock more content as they check-in to different locations around the walls in Chester.

Using a GPS linked map, the app pinpoints a visitor's location and helps them navigate the 2.5km route. Along the walk they learn stories from the last 2,000 years and see historical objects reconstructed through 3D CGI animation. Audio and video dramatisations show some of the most fateful moments in Chester's long history.

ACOUSTIGUIDE LIMITED

Acoustiguide's Opus Multimedia Guide has become an important part of the experience at the Henry Moore Foundation in Hertfordshire, UK.

The multimedia guide, which is included in the ticket price, gives visitors a tour around the grounds of Perry Green, where sculptor Henry Moore lived and worked. The tour explores his workshops explaining the process of his work from concept to sculpture. The guide offers visitors a great insight into the life of Henry Moore through interviews with his daughter Mary Moore, produced specially for the audio tour.

The guide is narrated by broadcaster Joan Bakewell, who once interviewed Henry Moore on the estate, and features contributions from members of staff at the Foundation. Visitors can also view exclusive archive material about Moore on-screen as well as images of the sculptures.

Opus, launched in 2008, is a multimedia guide offering images, video, gaming, visitor questionnaires, and data collection, which



The guide offers a great insight into the life of sculptor Henry Moore through interviews with his daughter, produced for the audio tour

can be managed by the staff on-site using the Opus Content Management system.

Using a number keypad, visitors key in the numbers provided at the attraction to get information on the exhibits.

Opus is also available as a touch-screen device, Opus Touch, which uses the same charging facilities as Opus Click, so that operators can offer visually impaired and sign language tours.



(Above and left) visitors key in the numbers provided at the attraction to get information about the exhibits

BLACKBOX-AV

Among Blackbox-av's audio and video interpretation products for the museums and heritage industries is the AT 100 Museum Audio Tour Guide – a portable tour guide designed to provide audio content to visitors as they explore exhibits.

The AT 100 supplies additional infor-

mation about exhibits throughout an attraction and is a translation device for foreign language visitors. It also acts as an accessibility aid for those who are visually or hearing impaired, serving as an alternative to physical information points as well as including expansions for two sets of headphones and built-in loop induction for those with hearing aids.

Capable of holding 1,000 minutes of audio, users enter the number displayed on an exhibit to access content. No installation is needed, as the units are supplied with a docking station for charging and reprogramming. Unlike an app, which requires specific hardware to operate and

may require updates over time to both software and hardware, the audioguide is purpose built and is independent from other technical requirements, such as a wireless network. No specialist knowledge is required to change content – the software operates through a simple drag and drop interface – or to operate the units, as they are provided ready to use.

The guides' aim is to ensure operators have value for money with an easy to use system.

The AT 100 Tour Guide can act as an accessibility aid for the visually or hearing impaired





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CONNECTING THE WORLD TO CULTURE

JORAVISION

Joravision has developed an app for the theme park industry which offers an interactive map of the park with clickable objects of all the attractions and other points of interest.

The app includes details of the attraction with text, images and videos. Details of queue lengths, special offers and information, such as ticket pricing and opening times, plus social media integration for Facebook and Twitter can be integrated.

Designed to be used before, during and after a visit, the app is location-based and shows visitors where they are in the park, with details of the attractions and facilities around them.

For each major smartphone platform, the operator needs to create a unique app with a developer, which costs between €10,000 (£8,300, US\$13,000) and €100,000 (£80,000, US\$130,000) depending on the supported smartphone platforms and required functionalities. Joravision recommends focusing on iOS, Android, BlackBerry and Windows Phone 7.

IMAGINEEAR

Imagineear's audiovisual guides are being used to interpret the animation of Singapore's largest art exhibition *A Moving Masterpiece: The Song Dynasty As Living Art*.

The Moving Masterpiece exhibition is a 128m by 6.5m animated reproduction of China's most famous painting of Qing Ming Shang He Tu, painted by Zhang Zeduan in the 11th century. The digital version is more than 30 times larger than the original. It debuted at the China Pavilion at the Shanghai World Expo in 2010 and has now toured Shanghai, Hong Kong, Macau, Taipei and Tai-Chung, attracting more than 10 million people. The guide is available in English, Malay, Japanese, Mandarin and the Chinese dialects of Cantonese, Hokkien and Teochew.

Imagineear has also provided an audioguide app in English and French for the



The Song Dynasty is revered as the Chinese Mona Lisa

Eiffel Tower, which visitors can pay for and download on local WiFi off-site. The content is a mix of archive footage of the Tower and the area around it in different historical periods, interviews with people who look after the Tower today and behind the scenes footage. Using the iPhone's compass, a panoramic feature enables users to identify Parisian monuments and buildings from the vantage point of the Tower and learn more about them. If required, the 360 degree panorama can be used manually.

For a site as busy as this, high-speed WiFi is needed, so the imagineear team, with their local partners, smArtapps, designed and built a customised WiFi transmitter which allows visitors to skip the login and password steps, but only allows them access to the Eiffel Tower app, which is cached locally on site. This makes the network five times faster than regular WiFi.

A customised WiFi transmitter allows the visitor to skip the login steps and makes the network five times faster than regular WiFi



SOUND ADVICE

The sound track is essential to enhance the visual content of an audioguide. PH Media Group's audio branding manager Olivia Brocklesby advises how to get it right



Interactive and multi-dimensional audioguides are a brilliant way to bring an attraction to life. When choosing a voice for an audioguide, the visitor should be your first consideration – particularly who they are and what they're looking for in a day out.

Essentially, you're welcoming people to your attraction and giving them information that will enhance their experience. A friendly and inviting voice establishes a good first impression with visitors. If you're appealing to a younger audience, your voice-over artist should be versatile and able to portray different characters. Or, if your attraction has a strong regional connection, you may want to consider a voice-over with a local accent to add familiarity.

Audioguides allow you to have fun with your visitors; the most successful voice-over artists are those who can adapt to the client

and portray different voices and personalities. It's important that you give the artist a solid brief so they know exactly what you're looking for – including the pronunciation of names and places.

Music is also an important consideration. It excites and adds to the theme of the attraction and also ensures the listener isn't waiting in silence before the next prompt begins to play. However, while music plays a key role in a production, the focus should be on the script and the information that's being delivered, so choose a sound track that enhances the vocal, but doesn't distract from it.

When it comes to the script, professional copywriters will ensure the message is put across in the most entertaining and informative way with short and to-the-point prompts. It's also the perfect opportunity to encourage visitors to find out more through a website and to cross-market other facilities, such as a café or gift shop. ●



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ECA2 creates record breaking aquatic stage

ECA2 has created the world's largest aquatic stage at OCTBAY, Shenzhen in China. 'Mangrove Groove' is a 38-minute multimedia show, featuring two water screens with a 50m base; hundreds of water jets; five geysers; 14 large flames; and more than 670 projectors for lighting and handling images. The production involves in excess of 50 actors, acrobats and dancers.

fun-kit.net KEYWORD

eca2

Global Special Effects unveils the T-1500



New from Global Special Effects is the T-1500 Snow Zone Evaporative Snow Machine. Available in either black or white and featuring a 20in fan, it is capable of being used at ground level as well as suspended from a truss and can send snow 50ft up in the air and more than 20ft wide. The size of the flakes produced can be adjusted from light to snowstorm. A smaller version of the machine called the T-1500 Mini comes with a 16in fan and has a vertical throw of up to 50ft and lateral

fun-kit.net KEYWORDS

snow zone

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Curtain up on Water Web

Comprising a grid of individually controllable rain curtains, Technifex's Water Web creates variable mazes for waterpark visitors to explore. With the push of a button or a programmed cue, the maze's configuration can be instantly changed. During the day, the Water Web can act as a play feature, but at night, or under controlled lighting conditions, it can be transformed into a dynamic show piece using colour changing lighting and projected imagery to create a mesmerising show or concert backdrop.



fun-kit.net KEYWORDS

technifex



Stadium Hazer now in discos and theme parks

Previously designed for outdoor stadium events, but since adopted by discotheques and theme parks, Le Maitre's Stadium Hazer produces up to 600cu m/hr of haze. It uses a sugar solution, rather than the original oil-based system – said to present health issues – or the less

effective water/glycol arrangement and features a hinged arm allowing delivery at various angles through 120°, with a variable speed high-output fan to project the haze.

fun-kit.net KEYWORD

le maitre



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Premier Rides brings Superman to Six Flags

Premier Rides is to design and build the newest roller coaster for Six Flags Discovery Kingdom in Vallejo, California. The 'Superman' branded ride – featuring what is said to be the tallest inversion west of the Mississippi – is scheduled to open this spring, will be 150ft (46m) in height and offer speeds of 62mph (100kph), with two upside-down twists and two vertical rolls.

fun-kit.net KEYWORDS

premier rides



LCI marking launch of Our Planet concept

LCI's first 'Our Planet' fully interactive visitor centre was recently launched in St Lucia. The centre contains a range of exhibits – such as a Discovery Zone and a Hurricane Video Mapping game – seeking to promote awareness of the conservation of the Earth's environment. LCI delivered all services including design and master planning, show production, gaming solutions, integration and installation and suppliers.

fun-kit.net KEYWORD

lci

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Pangea Rocks in Dubai aquariums revamp

Denmark-based design company Pangea Rocks has signed an agreement with Burj Al Arab in Dubai – the world's only seven-star hotel – for the renovation and redesign of two enormous aquariums in the hotel's lobby. The project will involve the removal of the existing decoration and its replacement with new reefs and artificial corals. These will be supplemented with large mirrors and LED lighting to help re-create the light that can be experienced when beneath the surface of the ocean.



fun-kit.net KEYWORDS

pangea rocks

To the moon with Apollo 8 and Electrosonic

The newly refurbished Apollo 8 lunar launch Firing Room Theatre at Florida's Kennedy Space Centre saw Electrosonic contracted to design the show control and AV equipment installation; integrate show systems between the control room and supplied lighting and effects systems; and programme all new and existing show components. The 400-seat theatre simulates the final three-minute countdown of the launch, with a stage – surrounded by monitors and



a countdown clock – recreating the actual Firing Room with chairs and jackets naming those companies present on the December 1968 day.

fun-kit.net KEYWORD

electrosonic



DJW bringing Canadian history to life

DJW has supplied, installed and programmed a range of equipment at Fort Edmonton Park, Canada's largest living history site. The project centres around the park's re-creation of Edmonton's original Capitol Theatre and features a 16-channel sound system using a variety of Bose speakers and sound processing equipment. Digital Projection Titan and Panasonic DZ1200 kit is used for projection, with the media delivery platform being a Dataton Watchout system. Show control is undertaken using Medialon Manager Pro.

fun-kit.net KEYWORD djw



fun-kit.net KEYWORD
memories

Magic Memories moving into the US

New Zealand-based Magic Memories, specialists in tourism photography experiences, is moving into the US market. The company offers a way of blending entertainment with education and incorporating them in an exclusive photobook. Customers can visit their favourite attraction and take home a detailed account of their experience in a book that they are able to share with friends and family without needing a camera. Memories of a trip may also be re-lived via the online photobook on the Magic Memories website, where visitors can continue the fun by adapting their photos using background templates.



JBL sound marking the end of the world

The apocalyptic early Victorian art of John Martin – depicting biblical catastrophes in vast panoramas – has been dramatically brought to life at Tate Britain with help from JBL loudspeakers. An immersive 11-minute-long son et lumière – run on a show loop – uses 16 JBL Control 1 speakers which are wall-mounted behind the audience and low down near the pictures themselves.

fun-kit.net KEYWORD

jbl



Gent by Honeywell solution for art museum

The prestigious UK art museum, The Wallace Collection, will be one of the first buildings to fit the new Gent by Honeywell hybrid radio fire alarm system. The new Plexus product is part of the museum's ongoing refurbishment programme. The installation includes a hard wired Gent Vigilant analogue system in a number of public areas, linked to loop powered radio transceivers supporting wireless devices in public areas.

fun-kit.net KEYWORD

gent

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