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ON THE COVER The 99 Village Theme Park, P26

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EDITOR'S LETTER

SAVING AND CREATING ENERGY

isitor attraction designers and developers have traditionally focused their energies on understanding the needs of visitors and working to exceed their expectations, while at the same time designing attractions which can be costeffectively managed in terms of personnel and maintenance costs.

However, it seems these priorities are changing and operators across the sector are beginning to ask more testing questions about the energy costs of the attractions they purchase. Speaking at the Annual National Conference of Visitor Attractions (VAC) in London in October, Ivan Knezovich from the West Midland Safari and Leisure Park said energy consumption is becoming as important a consideration as capacity when purchasing rides. He predicted that rides' power consumption figures would be made available as a standard part of the sales process in years to come.

Pressure from buyers will lead to innovation in all areas of energy consumption and we may eventually see the widespread use of rides which generate more power than they use. One of the first of these, the Green Dragon rollercoaster at the Greenwood Forest Park in Wales, UK, manages a top speed of 25mph, while also giving power back to the park. While this speed isn't going to set any records, there are some great engineering companies in this market which are capable of working

"The power needs of a wide range of attractions are being scrutinised by buyers, while specifiers are becoming aware of the need to both save and create energy"

on low- and no-energy concepts to help reduce the carbon footprint of rides and we will be seeing more innovation in this area to the benefit of all rides purchasers.

This change won't be limited to theme parks - a wide range of attractions use rides, from museums with ride-through exhibits to planetariums with simulation rides. The power needs of a variety of attractions are being scrutinised by buyers, while specifiers are becoming aware of the need to both save and create energy. One innovative project will see the team at the Science Museum in London using

> a chalk aguifer directly below the museum as a reservoir to help manage the heating and cooling of the museum.

The system will use two boreholes - one to be a cold store, the other a warm store. In summer, water will be drawn from the cold store and used to cool the buildings. The heat expelled from the buildings will be pushed into the warm store. In winter, the flows will be reversed and water drawn from the warm store will be used for heating. The resulting colder water will be pushed into the cold store, recharging it for the following summer.

Exciting schemes such as these show how our industry can make significant contributions to the reduction of carbon emmissions through collaborative innovation.

Liz Terry, editor, attractions@leisuremedia.com



























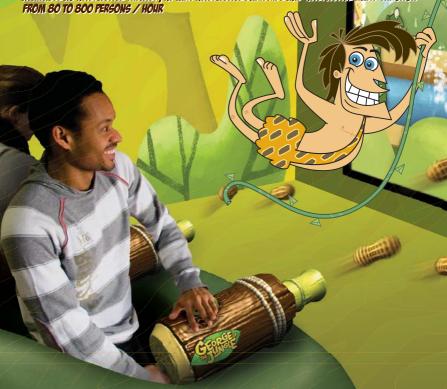






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PROFILE:

CHIP CLEARY

The new chair of IAAPA talks about dealing with the recession, the climate and swine flu. Rather than getting him down though, he's excited about the rapidly evolving industry and what's next



TAI KING POINT:

HOW CAN AWARENESS OF FREE ADMISSION TO MUSEUMS BE INCREASED?

Almost half of Brits don't know entry to the Natural History Museum is free. The experts explain how to resolve this



NEW OPENING: **HERO WORSHIP**

The 99 Village Theme Park opened in Kuwait earlier this year. Based on The 99 comic book superheroes, the park is the first of six which are being planned



MYSTERY SHOPPER: INSECTS APPEAL

Want to get close to creepy crawlies? We visit the new BugWorld Experience in Liverpool to find out if it has legs



OCCUPATIONAL HAZARD: THE CRYPTO FACTOR

We learn how Fairmont Aquatic Center managed when an outbreak of crypto meant under-fives were banned



MUSEUMS:

MYTHICAL STATUS

Salzburg Museum's archivist. Frich Marx reveals how they won the European Museum of the Year Award 2009



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From launching a Halloween show in 1996 to running a global business. Harris is out to entertain and scare the world!



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MULTIMEDIA & AV: REALITY SHOW

The latest applications for multimedia and audiovisual are used to bring subjects to life. Examples include talking wasps and a flight over London

Multi-slider rides and interactive toys are

big news at waterparks, providing fun

for the whole family, while the Virginia

Graeme Baker Act makes pools safer



her new role as director at mima PLANETARIUMS:

Kate Brindley tells us about setting up

the controversial Banksy exhibition and

STAYING IN TOUCH Augmented reality, mimicking motion and real-time reactions are among the

latest interactive experiences AUDIOGUIDES:



NEW DIRECTIONS and innovators in the industry

WATERPARKS: POOLING RESOURCES

THE STORYTELLERS

The second part of our look at recent, exciting audioguide projects



EXHIBITION DESIGN: PIONEERING PORTRAYALS

FUN-KIT SPECIAL: TICKETING SYSTEMS

A fun-kit/museum-kit focus on ticketing systems available for attractions



MUSEUM DESIGN: **VARIETY SHOW**



New exhibitions inject life into the stories of Shakespeare and Darwin, while another challenges the stereotypical image of Chinese Americans



ODD JOB: A FISHY TAIL

Marcy Terry describes her life as a mermaid at Wacki Wachee Springs



tackle very different design projects

We hear about the firm's zoo design phi-

losophies and work at Miami Metrozoo



MUSEUM NEWS



The new wing covers an area of 16,700sq m

Darwin Centre opens at NHM

The long-awaited £78m (US\$125m, €85m) Darwin Centre at the Natural History Museum (NHM) in South Kensington. London, UK has opened its doors to the nublic on schedule

At the centre of the new 16,700sa m (180,000sq ft) wing sits a 65m (210ft)-long, eight-storey high cocoon accommodating 17 million insect and three million plant specimens in 3km of cabinets, which are open to display to museum visitors. Some of the windows also feature a microphone to allow the public to question museum scientists while they carry out live research.

The museum has also teamed up with the BBC to showcase natural history film footage in the Attenborough Studio, while a 30sq m (323sq ft) Climate Change Wall

featuring a collage of interactive screens provides information on global warming.

The official opening in September was attended by HRH Prince William of Wales and Sir David Attenborough

Michael Dixon, director of the museum, said: "We hope that Prince William will be the first of many visitors who will leave with a real sense of awe and wonder at nature and a better understanding of why the work of the Natural History Museum is so relevant - now more than ever.

"We hope he and our many guests will be inspired to share in our collective responsibility over the future of the planet."

HGB Construction built the new wing in accordance with the designs of Danish architects C F Møller.

Picasso Museum closes for revamp

The Picasso Museum in the Marais quarter of Paris, France, has closed its doors to the public for the next two vears while it undergoes a revamp.

Doubling the amount of exhibition space available in the 17th century mansion to more than 2.000sq m (21,500sq ft) will allow the current display of only 300 works of art to be expanded to include a more of the museum's 5.000-strong collection.

The visitor areas will also be remodelled to enhance educational value for families. The museum is scheduled to reopen in February 2012.

MOCA opens its doors to the public

The Museum of Chinese in America (MOCA) in New York reopened in September following a redesign.

The 14,000sq ft (1,300sq m) space was designed by Mava Lin and boasts multiple exhibition galleries, interactive display kiosks, a multipurpose auditorium/classroom, a research centre and a space for multidisciplinary public programmes.

The museum is funded by the National Endowment for the Arts, the New York City Department of Cultural Affairs and the New York State Council on the Arts. (See P66)

New exhibition for Arbeidermuseet

Arbeidermuseet in Copenhagen, Denmark, has added a new gallery to its collections.

The museum, which charts the history of the Danish workers' movement, has created a new section called Industry Worker. The exhibition starts in an introductory room where a seven-minute long, high definition movie with historical facts is displayed on a 42in (110cm) LCD monitor.

After the introductory room, visitors go through several exhibition rooms which offer a number of listening posts, allowing quests to listen to interviews of workers of the local industry from a century ago.

The exhibition has been designed by Danish firm Blekksprut AS, while Multi Tekst was responsible for integrating the multimedia used in the exhibition. The show uses technology supplied by Medialon as the main show control system.

Arbejdermuseet was founded in 1983 and celebrates the working class' struggle for equality and rights throughout the last 150 years. It is set in the former Workers' Assembly Hall, which was built by the labour movement in 1879. Exhibits include artworks and displays about the working man's conditions and hardships.



The museum charts the lives of workers















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HERITAGE NEWS



The museum will chart the history of the planet, from dinosaurs to humans

Evolution museum for Athens Zoo

UK-based Lazenby Design has been appointed to design the new Evolution Museum in Athens, Greece

Scheduled to open in 2010, the 4,000sa m (43,000sq ft) museum will be located at the city's Attica Zoological Park.

The museum will house both outdoor and indoor exhibits, including immersive prehistoric environments, creature models, palaeontology displays and animated interpretive AV exhibits. The museum will chart the history of the planet from early organisms through to the rise of mammals.

Lazenby Design's creative director, David Lazenby, said: "This will be the first exhibit of its kind in Greece and, while most museums tend to focus only on the dinosaurs. we will take our visitors on a thrilling, multisensory journey. Together with engaging, interpretive and audio visual displays, it will make for a meaningful, educational and exciting experience."

The museum will be operated by Athensbased Attica Thematic Park, which also operates the zoo. The Attica Zoological Park first opened in 2000.

Civil rights museum plans on hold

Plans to establish a purpose-built US\$80m (£49m, €56m) heritage attraction based on the civil rights movement in Jackson, Tennessee have been put on hold indefinitely.

A possible site for the museum was chosen back in March 2008, but since then little progress has been made despite a number of meetings between city officials.

The museum was originally scheduled to open to the public by 2012. A spokesperson for the project said that the prolonged planning process has been caused by the "slumping economy" and pressures on property-led projects.

The proposed site for the museum is the city's Tougaloo College campus, which served as a safe haven for those taking part in the Freedom Riders movement. The then university was built in 1869 on a former plantation for newly freed slaves.

The Tougaloo College is currently undergoing a US\$7.5m (€5.1m, £4.7m) redevelopment of its facilities. Work will include a new art gallery.

Event appointed for Causeway project

Exhibition designer Event Communications will develop the interpretive design for the planned £18.5m €€20.2m, \$29.8m) visitor centre at the Giant's Causeway tourist attraction in Northern Ireland

Event will work closely with The National Trust - which manages the world heritage



The new visitor centre will open in 2011

site - on the project, which will include scoping, shaping and implementing the interpretative plan for the Giant's Causeway and Causeway Coast World Heritage Site.

Steve Simons, executive creative director of Event said: "The Giant's Causeway is one of the great natural wonders of the world. I'm thrilled that Event has been awarded the task of immersing visitors in its splendours. The new Visitor Centre will encourage appreciation and contribute to the vital protection of Northern Ireland's only World Heritage site."

Plans for the new centre, which was designed by Dublin-based architects, heneghan.peng, were approved by the Northern Ireland Executive's environment minister, Sammy Wilson, in January 2009.

Work is expected to get underway on the new visitor centre in early 2010 with a scheduled public opening in 2011.



Tennyson's former home is now open

Tennyson museum opens to the public

A museum celebrating the life and times of British poet Alfred, Lord Tennyson has opened at his former home on the Isle of Wight, UK.

Present owners Martin Beisly, a senior expert on Victorian painting at Christie's auction house, and Rebecca Fitzgerald have reopened Farringford House to the public following a threevear refurbishment.







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BALPPA NEWS



A third of children 'never been to a theme park'

A children's charity has called on theme park operators to lower their prices after a study claimed that more than a third of children in the UK have never visited a park.

A survey by 4Children shows that 38 per cent of school-aged children have never visited a park because their parents are unable to afford the costs involved. Anne Longfield, CEO of 4Children, called for leading attractions to cut their prices in order to accommodate poorer families.

4Children singled out Alton Towers and Legoland - operated by Merlin Entertainments - as parks which charge families more than £100 for a day out.

In response, Merlin said the survey failed to take into account the existence of Merlin's own children's charity. Merlin's Magic Wand, Launched last year, Merlin's Magic Wand provides disadvantaged children the opportunity to visit Merlin attractions by offering free entrance.

Dreamland plans move ahead

The Heritage Lottery Fund (HLF) has awarded funding worth £384,500 to The Dreamland Trust in Margate to develop plans for creating the world's first theme park of historic rides.

The HLF first-round pass means the trust can now progress to the second stage of the HLF application process. It has up to two years to submit detailed plans and apply for the £2.65m of HLF money that it is seeking for the £12m project.

Phase One of the project will create an amusement park of historic rides, many of which are the last surviving examples of their type. Over the past decade, these rides have been rescued from across the UK by The Dreamland Trust, with the assistance of site owners the Margate Town Centre Regeneration Company.



London attractions see rise in numbers

The number of people visiting museums, galleries and other London attractions increased by 12.8 per cent during the three months from April to June, compared to the same period last year.

Visit London attributed the boost in visitor numbers to the warm weather and European tourists taking advantage of the weak pound.

During the period, visits to paid attractions rose 14 per cent, while free attractions saw a 12 per cent increase



Challenging Times

hose of you who attended the Annual National Conference of Visitors Attractions will have been inspired by the conference theme "Challenges Make Champions". The speaker line-up was quite awesome, without question the strongest we have had in the six years of VAC.

There can never have been a more appropriate theme for a conference. nor have we faced quite so many challenges as those we are likely to face in the 2010 season. For many attraction operators, 2009 started very encouragingly and the expression "staycation" became a much used phrase throughout the industry and trade media.

Domestic holiday providers reported strong bookings, and the optimism was heightened even further with the euro and dollar showing strong performances against sterling. We even witnessed a hullish weather forecast from the Met Office which referred to a "barbeque summer"! But what of 2010?

Will the optimism survive without help from the Met Office? Will Sterling recover against the euro and dollar? Will poor weather reflect badly on the holiday plans for the domestic market? Will a change of government take place and breathe new life into tourism?

My crystal ball is a touch cloudy today, but one thing is certain.

Those who rise to the occasion to meet the challenges will once again prove to be the ones who report a positive result. Will your attractions business be among them?

Colin Dawson chief executive, BALPPA

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THEME PARK NEWS



The theme park will be based on ethical leisure activities

Ecofun theme park plans for Penang

The Penang Government in Malaysia is to hold an open tender seeking designs for a new 'Ecofun Theme Park Resort'

The RM100m (US\$28.5m, AUD\$34m, £17.3m) resort would be located on 12.14hectares of land leased from the PenangWater Corporation in Teluk Bahang.

Penang-based theme park design and development company SIM Leisure has reportedly already submitted a proposal which includes a waterpark and farm. SIM Leisure general manager Roy Brattinga said: "Ecofun is a project based

on cultural conservation and social responsibility, but also provide an economic platform, which will create 500 jobs and attract at least one million visitors to the resort annually. It will have a positive effect on other tourism services within Penang.

"It is a major undertaking with a new configuration that has never been created with such a wide spectrum of ethical leisure activities.

SIM Leisure has previously been involved in the design and construction of the Yas island project in Abu Dhabi.

Six Flags theme park for Nigeria

The Government of Cross River State of Nigeria (CRSG) and theme park company Six Flags have announced plans to develop a Six Flags branded theme park in Calabar Cross River State, as part of the state's 'Destination Tourism' development plan.



Six Flags in Destination Tourism plan

Under the binding agreement, Six Flags will provide concept development and master planning services to CRSG for the creation of a Six Flags branded theme park located on about 250 acres (100 hectares) adjacent to Tinapa Business Resort.

Once the initial phase is finalised, Six Flags and CRSG will collaborate on the detailed design, development, construction and management of the park, which is scheduled to open in 2013.

Senator Liyel Imoke, Governor of Cross River State said: "The Calabar theme park project will be a signature leisure destination for residents and tourists in the West African sub-region. It will serve as a critical component of the State's tourism value chain, quaranteeing additional tourist traffic to existing attractions including the Tinapa Resort, Obudu Ranch Resort, and the Slave Museum

Blackstone buys Busch

Blackstone has reached an agreement with Anheuser-Busch InBev to acquire Busch Entertainment Corporation for US\$2.7bn (£1.69bn, €1.83bn).

The deal includes 10 visitor attractions in the US - the SeaWorld parks in Orlando, San Antonio and San Diego, two Busch Gardens parks in Tampa and Williamsburg and other family attractions in Orlando, Tampa, Williamsburg and Langhorne.

The deal is comprised of a cash payment of US\$2.3bn and a right to participate in Blackstone's return on its initial investment, capped at US\$400m. Blackstone already owns Merlin Entertainments, but there are currently no plans to merge the operations of the two companies.

Disney acquires Marvel

The Walt Disney Company is to buy Marvel Entertainment in a stock and cash transaction valuing the company at US\$4bn (£2.5bn, €2.8bn).

Under the terms of the agreement and based on the closing price of Disney on 28 August, Marvel shareholders would receive a total of US\$30 per share in cash plus about 0.745 Disney shares for each Marvel share they own, making the transaction value US\$50 per Marvel share.

Bob Iger, president and chief executive of The Walt Disney Company said: "Adding Marvel to our portfolio of brands provides opportunities for long-term growth and value creation."

Park plans for India

The regional government of the northem Indian state of Harvana is planning to build a "world-class", 58-acre (23.5-hectare) theme park in a bid to entice more tourists to the region.

According to the Press Trust of India, an official spokesman for the government said: "The theme park will be based on international models. which are operated worldwide. It will boast high-tech attractions and rides along with state-of-the-art facilities. These would constantly be upgraded."



SEGA Republic opens in Dubai

SEGA Republic, a gaming-themed indoor theme park, has opened at The Dubai Mall in the United Arab Emirates.

The 76,000sq ft (7,060sq m) attraction, developed by Dubai-based Emaar Retail in association with the Japanese SEGA Corporation, comprises five themed zones: Speed, Adventure, Sports, Cyberpop and Redemption.

Nine attractions, including Spin Gear, Sonic Hopper, Halfpipe Canyon, Storm-G and Initial D4, offer visitors more than 150 amusement games. The Speed Zone features a 9m (30ft) drop ride called Sonic Hopper, while the Adventure Zone centres on a spinning coaster called Spin Gear and the Sports Zone offers thrill-seekers a snowboarding ride called Halfpipe Caryon.

Arif Amiri, CEO of Emaar Retail, said:
"SEGA Republic is the first of its kind in the
Middle East and it delivers an unmatched,
distinctive leisure experience for all visitors."

The Dubai Mall also houses the 22-screen megaplex Reel Cinemas, while KidZania will open later this year.

Kings Dominion to introduce giga-coaster

Kings Dominion, a Richmond, Virginia, US-based theme park, is to unveil what will be only the second Giga-coaster in America for its 2010 season.

Taking its name from car racing's Dale
'The Intimidator' Earnhardt, Intimidator 305
is a 5,100ft (1554.5m) long steel attraction, which it is reported will be the tallest and
fastest of its type on the US east coast.

Designed and built by Intamin AG of Switzerland, trains on the US\$25m (£15.17m, £17.5m) coaster will reach 305ft (93m) at its highest point, descend 300ft (91.4m) at an 85 degree angle and hit speeds of over 90mph (145kmh) during the three minute ride. Fashioned after Earnhard's signature black car, trains will go through six airtire humps plus three high speed turns from start to finish.

Intimidator 305 will be located in the park's Congo section and become the



A rendering of the new coaster

site's 15th world-class roller coaster. In addition to Kings Dominion, Cedar Fair owns and operates 10 other amusement parks, six waterparks, one indoor waterpark resort, and five hotels. The company also operates the Gilroy Gardens Family Theme Park in Gilroy, California.





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SCIENCE CENTRE NEWS



MNM complex to be redeveloped

All four attractions within the Muséums Nature Montréal (MNM), the largest science museum complex in Canada, are set to benefit from a CA\$189m (£107m. €120m, US\$177m) redevelopment, funded largely by the city government.

The seven-year project will begin next year, with the site's new Rio Tinto Alcan Planetarium scheduled to be completed as part of the first phase in 2012. The Biodome and Insectarium will receive upgrades, and a new Biodiversity Centre will be created to house both research

facilities and a public exhibit looking at the effects of human behaviour on the planet.

Within the centre, a 'human ecosystem' will lead visitors on an excursion above the Biodôme's ecosystems. It will be designed as an immersive, moving and hands-on experience helping visitors to better understand the human race's role in nature.

The redevelopment is part of MNM's plans to allow the four museums to increase their combined, total attendance levels from the current 1.65 million visitors to 2.65 million a year by 2017.

New home for Miami Science Museum

The Miami Science Museum has received planning permission for its new US\$275m (£172m, €188m) home.

Museum Park Miami will be a 40-acre park designed for both "active and passive recreation", with two museums - The Miami Museum of Science and the Miami Art Museum - as well as lawns, public gardens, fountains and pools.

The new museum has been designed by British firm Grimshaw Architects, with an aquarium designed by New York-based Thinc. Grimshaw's designs include a threestorey teardrop-shaped structure with a 100ft (30.5m)-wide aquarium at the top.

The 250,000sq ft museum will boast a planetarium, children's exhibits, travelling science shows and a wildlife centre.

Regional Science Centre to open in Mangalore

Regional Science Centre (RSC) is currently being built in Mangalore, India.

The attraction will be housed on the Pilikula Nisargadhama - a lake that already boasts a botanical garden and a zoo - at a cost of Rs 8 crore (£1.05m, €1.15m, US\$1.67m), The RSC was initially supposed to cost Rs 6.5 crore, but the project hit delays getting planning approval. It will boast a science park and five galleries, with bio-diversity, the environment and energy as the themes.

The project is being funded by the government and The National Council of Science Museums, The RSC is scheduled to open in December 2010.



Creating a continiuum

bout five years ago, here at Discovery Center Continiuum, we picked up the challenge to transform Industrion - a traditional industrial museum in the southern part of the Netherlands - into a lively centre where people of all ages would be inspired and would learn and have the opportunity to debate on science and technology. Our main focus at the start was to cooperate with other science centres and science museums in Europe and change our way of working from being inward looking to being interactive and open-minded.

We did this with temporary exhibitions, programmes and science communication. By doing so, we also got involved in the Ecsite network and learned about problems and successes. After a few years we had successfully turned Industrion into a place for fun, science and debate.

The next step was extending our premises and building new permanent exhibitions. Industrion re-opened three months ago as Discovery Center Continiuum and we think that we have built a place for the future, which we plan to regularly update to stay topical. It has become an interesting place where past, present and future are connected through science, industry and society. We hope to inspire our visitors and engage them in science and, above all, we hope we have created a continiuum.

Hans Gubbels is the director of Discovery Center Continiuum





ZOO & AQUARIUM NEWS



Merlin to open Sea Life in Phoenix

Visitor attraction operator Merlin Entertainments will open a US\$15m (£9m. €11m) Sea Life aquarium in Phoenix. Arizona early next year.

Scheduled to open Easter 2010, the 26.000sq ft aquarium will be located at the citv's Mills Mall mixed-use development and will include 12 different habitat zones housing more than 30 display tanks.

Glenn Earlam, MD of Merlin's Midway Attractions, said: "We've proved that quality retail and leisure provide an ideal commercial mix for our midway brands.

They not only provide an ideal extra element for a family shopping day out, but, more importantly, they drive significant incremental traffic for our retail partners."

Earlam added that the company is actively looking at further expanding its portfolio of attractions in North America. Sea Life Phoenix will become Merlin's eighth attraction in the US and the 36th Sea Life aquarium worldwide.

"Our development team is reviewing sites across the US in line with our aggressive growth plans," he said.



Hotel plans for Columbus Zoo

The owners of the Columbus Zoo and Aquarium in Ohio, US, are considering adding a US\$40m (£25m, €27m) onsite hotel to the attraction.

According to Ohio's daily newspaper, The Columbus Dispatch, the zoo has hired Hotel & Leisure Advisors of Cleveland to determine whether a hotel would be profitable on the site.

The firm said that its success would depend on how creative the hotel is and how well it is marketed as a unique resort, complementing the zoo, its waterpark and its golf course.

The company also suggested that the hotel have 175 rooms spread over three buildings and 25 bungalows.

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WATERPARK NEWS



Aussie World will not be redeveloped as a Wet'n'Wild park

Roadshow drops Aussie World plans

Australian theme park operator Village Roadshow has abandoned plans to acquire Aussie World on the Sunshine Coast and develop the site into a Wet'n'Wild water park at the site

The company submitted a development application in May 2008 for the AUD\$70m (£34m, US\$67m, €43m) Wet'n'Wild Aussie World, but has now decided not to buy.

While the announcement is a disanpointment for Aussie World, it could put plans for the nearby AUS\$110m (£53.5m. US\$105.7m, €67.6m) Adventura Waterpark back on track. The scheme for the state-ofthe-art waterpark has been planned for five vears and would be located close to Aussie World, opposite Sunshine Coast turf Club on Caloundra Road

Adventura Waterpark's Damian Brown said recently: "It's very clear residents of the Sunshine Coast want Adventura Waterpark to happen sooner rather than later."

Work begins on Waves of Fun

Construction work on the US\$20m (£12m, €14m) Waves of Fun water park in Sandwich, Illinois, US, is underway, thanks to funding being secured from a new lender.

The 45,000sq ft (4,180sq m) indoor attraction will feature a wave pool, a 500ft (152m) lazy river, Body Glove Waves SurfStream surf simulator supplied by American Wave Machines. two speed slides and two tube slides.

There will also be an interactive water play structure with a 1,000-gal-Ion tipping bucket and 50 different water activities aimed at children.

A Hawaiian-themed restaurant with a whirlpool for up to 25 people and a 2.500sq ft arcade (230sq m) will overlook the waterpark.

The attraction is scheduled to open to the public in March 2010.



The park will include extreme-style slides

Ottawa waterpark to open next year

A new CAD\$45m (£25.2m, €28.6m, US\$41.6m) waterpark in Ottawa, Canada is to open in June 2010.

The Calypso Waterpark is the brainchild of Quebec City businessman Guy Drouin, and will boast extreme-style waterslides, a 4,645sq m wave pool, a jungle river, a beach and restaurants. The park will be able to host 12,000 visitors each day.

The park was initially meant to open this vear, but, according to The Ottawa Citizen. was delayed by bad weather.



The world's largest swimming lesson

As part of its continuing commitment to "building water awareness one kid at a time," the WWA, with partners the Association of Pool & Spa Professionals, the National Recreation and Park Association, the International Swimming Hall of Fame and others, plans to launch the World's Largest Swimming Lesson in June 2010.

The project's goal is to unite the nation's most influential water-safety organisations in the implementation of the event at the beginning of the 2010 swimming season to build awareness about the vital importance of learning to swim to prevent drowning of children aged one- to 14-years-old.

Consider these sobering statistics from the Center for Disease Control: six people drown in US pools every day and four times as many people almost drown. Statistics in Europe are just as troubling - the World Health Organisation reports that in Europe, drowning results in 38,000 deaths a year and is the third leading cause of death in five- to 14-year-olds.

The good news is that drowning deaths are usually preventable. The World's Largest Swimming Lesson, should generate local and national press attention about the importance of teaching kids to swim with, hopefully, events at 100 different facilities at a synchronised time around the globe.

To get involved, contact Aleatha Ezra at aezra@waterparks.org

Aleatha Ezra is the membership manager of the World Waterpark Association



GALLERY NEWS



Interactive gallery opens at The Public

The interactive art gallery at The Public in West Bromwich, UK, has finally opened. A £3m (€3.3m, \$4.8m) one-off grant from Arts Council England (ACE) has funded completion of the arts complex.

The gallery has faced financial difficulties following a doubling of annual running costs since its partial opening in June 2008.

A new business plan submitted to ACE by Sandwell Metropolitan Borough Council (SMBC) and Sandwell Leisure Trust (SLT) secured the emergency funding package, and the completed arts complex is now

being run by a specially set up not-for-profit company called Sandwell Arts Trust.

Designed by architects Will Alsop, The Public's future had been under scrutiny after the council revealed that its annual running costs had doubled since it partially opened to the public in June 2008.

ACE had originally announced that it was to withdraw financial support for The Public due to delays in opening the venue's interactive art gallery after the company responsible for creating it, Public Gallery Ltd, entered administration earlier this year.

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WAVELO

New arts gallery planned for Leicester

A new £2.4m (€2.6m, \$3.9m) public arts gallery is set to be built on the site of a former nursery in Leicester, UK, to replace the existing City Gallery if the proposals are given the green light by the local authority. Leicester City Council's (LCC) cabinet

will decide whether to approve plans for



The gallery will open to the public in 2011

the new building at the council-owned site on New Walk, which have been drawn up by Marsh Grochowski Architects and Focus Consultants UK.

The council has already agreed to replace the City Gallery with a new venue in the existing nursery building, but will now be asked to approve the construction of the new building to replace City Gallery, which is due to close when its lease expires in February 2010.

It's expected that construction of the venue, which is scheduled to open in spring 2011, will be funded mainly by LCC, as well as a £120,000 (€131,600, \$193,000) contribution from Arts Council England.

Nick Gordon, managing curator of collections and interpretation at LCC, said: "The architects who have designed the new building have a national reputation for their work on galleries and the arts."

CHIP CLEARY

The recession, swine flu, bad weather and new legislation are among the issues facing Chip Cleary, as he takes over as chair of IAAPA. Rather than being daunted by this, Cleary tells Kathleen Whyman why he looks forward to dealing with these challenges and is optimistic each day will be a sparkling one





"IF YOU THINK THE ATTRACTIONS INDUSTRY
HAS EVOLVED QUICKLY IN THE LAST FEW
YEARS, FASTEN YOUR SEATBELTS. IT'S GOING
TO BE A LOT FASTER IN THE FUTURE"

"t's going to be a tough year for many of our members," admits Chip Cleary when I ask about his forthcoming appointment as chair of IAAPA (International Association of Amusement Parks and Attractions). Cleary takes over at the IAAPA Expo in Las Vegas in November. "This isn't a great time compared to last year, which was dynamic," he continues, "but I'm an optimist. IAAPA's been groomed for many years to stand the challenges that are out there and I'm confident that it'll be a great end to the season for our members."

CHALLENGING TIMES

This is comforting to hear, as there have been quite a few challenges this year. "Depending on where you are in the world, the swine flu has been a disaster," agrees Cleary. "Six Flags in Mexico shut down and some parks in Texas saw damage - or something very scary that brushed past their park. So far [at the time of going to press), the US hasn't been affected too much, but that could change in the fall, as we're told the swine flu could come back worse. In the US, the weather's been the big story in a lot of regions," he continues. "It's been the most challenging to the industry I've seen in many years. Then there's the recession on top of that. Many of us have had to turn our game plan upside down, from adding value to ticketing programmes to doing very selected discounting to make sure we're tuned into our quests."

With 30 years' experience in the amusement industry, and as senior vice president for Palace Entertainment's US business, Cleary knows what he's talking about. And he believes there's another challenge for attractions, which isn't making headline news, but is just as significant – it's change. "There's never been a period like the last seven years for such breathtakingly fast change. From selling tickets and com-



municating with guests online, to using technology in the park to tell stories and do things better," he says. "When we were kids, we'd meet up at amusement parks and hang out with our friends and that was how we communicated. Now one person can Twitter something and within 20 hours the whole world is exposed to that. We live in a different era," he continues. "But the industry has always reinvented itself when the ebb and flow of society has created different demands on us. As long as we do our jobs right and migrate to different systems, we'll be OK, A lot of parks are already doing this with blogs and using Twitter to communicate to the kids." Cleary thinks we're far from seeing the end of change, "If you think it's evolved quickly in the last few years, fasten your seat belts," he smiles. "It's going to evolve a lot faster in the future."

As chair of IAAPA, Cleary plans to ensure members are well equipped for the forthcoming changing trends. Another priority job is "making sure the I in IAAPA really does stand for international." Our European office is growing and solidifying and he's keen for the Asian Advisory Board in Macau to do the same. This will be helped by the appointment of a South American representative.

WATER RAPIDS

The rapid evolution of the industry fascinates Cleary, particularly in the waterpark sector. "Twenty years ago, waterparks were very small and have blossomed into rides that people wouldn't have imagined could exist," he says. "When I got into the industry, you grabbed a tube or walked up the tower, came down the slide and landed in the pool. That's still a great experience, but now we have slides which people go down in the dark and gravity-defying rides where people go backwards uphill. Behind the scene technology has grown tremendously. We're doing things with water I'd have said were impossible 10 years ago." Cleary's enthusiasm grows as he speaks, "There doesn't seem to be a limit as to what can be done out there if you have the imagination. Waterparks have morphed into hotels and in some cases there are indoor waterparks. under a dome standalone to the hotel. We haven't seen the amount of variations that can come out of that. It's a whole new frontier and look how fast it's happened!" As with the rest of the industry

though, the waterpark sector has had its challenges. New legislation has been introduced in the US to help prevent Cryptosporidium (a microscopic parasite Cleary is fascinated with the rapid rise of the waterpark sector, which has evolved since he opened Splish Splash in 1991

which lives in water and, if swallowed, can cause gastroenteritis - see P34) and the Virginia Graeme Baker Pool and Spa Act has been enforced to reduce the number of suction entrapment incidents, injuries and deaths (see P62). "No-one should ever get hurt on a drain grate," says Cleary grimly. "There have been some devastating incidents over the years. The law, the implementation, the timeline and the expense of it caught the US industry off guard, as it came about so fast. It's a very big project, in many cases requiring operators to break up the bottom of their pool and put in different types of grids and drainage systems. But you can't ever compromise on safety."

PARK PROGRESS

As senior vice president of Palace Entertainment's 32 parks in the US – "my pallet is now a little bit waterparks, a little bit rock 'n' roll rollercoasters" – Cleary oversees theme parks as well as waterparks and is equally impressed with developments in this sector. "There's great



Rides like the FlowRider show how hightech waterparks have become. Cleary predicts they'll be evolving even more

storytelling in rides," he says. "The Toy Story ride Disney did recently is cutting edge imagination. Look at the advancement of rollercoasters in the last five years – it's just amazing. We'll continue to see evolution of the product. Somewhere, somebody in the world is working on a completely new concept; a great vision."

Cleary had his own great vision and concept almost 20 years ago. This resulted in Splish Splash waterpark, which Cleary opened on Long Island, New York, in 1991 and which is regularly noted as one of the top attractions in the US on The Travel Show. Cleary and his partners sold Splish Splash to Palace Entertainment in 1999. "At the time, many companies were consolidating. We were approached by a number of people about selling our business," he recalls. "Aff this we thought no, but there were many benefits for us and our partners, so we decided to go. The doorbell rang a few times and we finally answered it."

In 2008, Palace Entertainment merged with Parques Reunidos. "That's been another wonderful experience because now we're a worldwide company," says Cleary. "We're very strong in the European sector (Parques Reunidos has 68 parks) and have a good presence in the animal

ABOUT CHIP CLEARY

Hobbies?

I've been a model train collector since 1957. My train layout is about 36ft long and 8ft wide.

Favourite food? Seafood and world food experiences.

Favourite film?

Jaws. I grew up on Long Island, which has a lot of big fish around it. No one will ever forget sitting in the movie theatre when the shark came out of the water for the first time.

Movie theatres all over

the world were probably replacing chair backs as a result of that scene.

How would others describe you? A happy person, who tries

to make others happy.

How would you
describe yourself?

I challenge people to greatness, but have a laugh along the way.

Best piece of advice you've received? Attitude is everything in life

Future plans?

For our organisation to be one per cent better every day.

Why are you called Chip when your name's James?

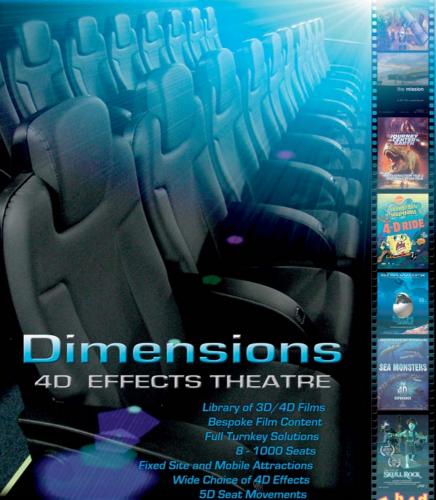
I was named James after my dad. He wanted me to be a baseball player and thought Chip Cleary would sound good over an announcement, so I've always been called Chip. The name's served me well, but I was the worst little leaguer the word's ever seen.

sector through our aquatics and zoos division. Between our team members in Spain, where our corporate headquarters are located, and our team members in the US, we have a nice international organisation going. It's definitely a world family – we leam from each other on a daily basis."

Cleary's catchphrase is "have a sparkling day", a saying he's used since joining the attractions industry. He'd originally trained to work in the television industry at college in Florida, but was enamoured by the scale and scope of Walt Disney World, which was being built nearby. A "happy coming together of many things" led to Cleary starting work in 1978 at Adventureland on Long Island. "I never looked back," he says. "It's been a privilege to serve our guests and, now, to get elected by my peers to this position in IAAPA. If I could wear a t-shirt that said 'it's been a privilege', I would."

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HOW CAN AWARENESS OF FREE ADMISSION TO MUSEUMS BE INCREASED?

The UK's Natural History Museum has welcomed its 25 millionth visitor since December 2001, when the admission charge was removed. But, despite the huge role all free museums can play during the economic downturn, only 45 per cent of Britons know entry to the NHM is free. Kathleen Whyman asks the experts why they think this is and what can be done to rectify it



SPOKESPERSON
Department of Culture,
Media and Sport

t's both surprising and disappointing that there isn't greater awareness of the free admission policy. It's widely promoted by the DCMS, VisitBritain and the free museums themselves.

On the positive side, our figures show that the policy has been very successful in the most important area: the number of visits is up by 124 per cent since the introduction of the policy in 2001. This research suggests that there's clearly scope to publicise the policy further and bring it to the attention of many more people. Along with the national museums themselves, we'll need to consider how best to make more people aware of free museums.

Lack of awareness that museums are free isn't necessarily a barrier to visiting. Recent research published by the Art Fund and the Work Foundation found that, despite the removal of admission fees, other barriers remain which prevent people from visiting galleries and museums, including a lack of knowledge about the art on display and a sense of being intimidated by the buildings themselves.

The report, Free to see – but what next?, also reveals that even if people don't regularly visit muse-ums themselves, they feel free admission is valuable to society as a whole and that free admission is highly valued and important in making public ownership of the

nation's art real in people's minds.

The policy of introducing free admission was just a first step to ensuring greater access to the national collections. At the same time, our sponsored museums have also been providing targeted programmes and activities to bring in visitors who may not have taken the opportunity to visit museums before.



DR MICHAEL
DIXON
Director

ince general admission charges were removed eight years ago, we've seen our visitor figures more than double – reaching 3.7million last year – but it's astonishing so many people don't know we're free. We hadn't realised it until we conducted an online omnibus survey.

The marketing spend required to gener-

ate national awareness would be massive and we don't have the resources to achieve this. Much of our marketing activity is weighted towards supporting income-generating activity, such as paid-for temporary exhibitions. When we open major new permanent galleries or wings, which are of course free to enter, we put a lot of marketing spend behind them and we also put the full PR machine into gear, which generates a lot of awareness. Our Darwin Centre opened in September and one of the key message is that it's free.

We're seeing ever-growing visitor numbers to the museum. At a time of economic uncertainty, museums offer an inspiring and free day out for the broadest spectrum

of society, and the value of this cannot be underestimated. The funding that we receive from government enables the museum to continue free admission, so this will always be of the most importance in encouraging access to the museum for the widest public.

As well as offering visitors a fascinating day out at no cost, the Natural History Museum has a much wider role to play in the recession. The museum is an internationally important visitor attraction – up to 40 per cent of our visitors are from oversees. That helps support London's tourist economy and encourages oversees visitors to spend their money locally.



How do you think awareness can be increased? Share your views - email kathleenwhyman@leisuremedia.com



MARK TAYLOR
Director
Museum Association

was very surprised by the research. Most people I know seem to know about free admission. In fact, I spend much of my time patiently telling them not all museums are free. Forty-five percent of Britons is a large number, but you have to remember that the fact a museum in South Kensington, albeit a national museum, is free, isn't of the greatest concern to many people in, say the north east of Scotland.

I'm sure lack of knowledge about free entry must apply to UK museums in general, depending on how good the marketing and publicity of a local museum is. I have no doubt that there are examples where the fact that a museum is free is known to most people.

The publicity for free entry to national museums was extensive when admission charges were removed in 2001 and the marketing of these museums is very professional. I'm guessing there's a correlation between those who don't know the museums are free and those who are disinclined to visit museums in the first place. This is another example of how museums need to

work harder to attract people from all sides of society.

Lack of awareness of free entry isn't as much of a barrier as lack of funding is. There will always be people who don't know museums are free. The number of visitors to national museums has almost

doubled since they went free and some are at bursting point. If funding's cut, they may not be able to cope, quality of service may drop and they may have to charge.

Any argument that free entry devalues the product is an odd concept. After all, we don't say that about schools, parks, the National Health Service or roads!



JEN FRASER
Associate director
and head of sport
and culture research

Ipsos MORI

orryingly, given the initial impact the free admissions policy appeared to have on visiting behaviour (ie increased visits), current levels of awareness of the scheme is reported to have decreased, with 45 per cent of the British adult population saying they don't know that it's free to visit museums (these figures are not provided by Iposo MORI).

What the industry needs to know is to what extent pricing is a driver of someone's propensity to visit a museum or similar attraction. For some groups of people, pricing may be a more prominent driver of deciding whether or not to visit such an attraction, while for other profiles, different factors will have a stronger correlation with this decision to visit.

There may be little point investing in marketing activity to raise awareness when some sub-groups of the intended target audience are never going to be interested or motivated to visit a museum or gallery, irrespective of whether or not it's free.

respective of whether or not it's free.
Segmentation analysis would be useful

here, identifying sub-groups of potential target audiences within the population of people who are currently unaware of free admissions. The purpose would be to identify those segments where effort and resource should be prioritised and is most likely to result in increased visits.

Once target groups are identified, it may be useful to conduct qualitative research to test out potential marketing messages and campaigns related to free admissions.

Different types of people take notice of and react differently to various forms of advertising and marketing materials so a 'one shoe fits all' approach to raising awareness is going to be of little benefit.



Creating positive Muslim characters was the inspiration for The 99 superheroes, whose attributes include mercy and wisdom. The comic books are now so popular they've spawned a TV series and a theme park in Kuwait, with plans to take the concept worldwide, as Kathleen Whyman learns



he 99 may seem unusual superheroes, with their messages of harmony and love. However, their attributes – including generosity, mercy and wisdom – are celebrated the world over and have been embraced internationally. Successful comic books about The 99 were created by Kuwaitborn Dr Naif Al-Mutawa, whose motivation was to build something for his children to look up to –"I was driven by a need to create new heroes that wouldn't disappoint," he says.

While training as a psychologist in the Survivors of Political Torture programme in New York, he worked with "too many people who'd grown up idolising their leader only to find themselves later on being tortured by them". He says: "What kind of message are we sending our kids about what it means to be a hero and what they can aspire to? The 99 offers messages of tolerance and peace."

THE ORIGINS OF THE 99

Having written a series of children's books in 1997 – including *To Bounce or not to Bounce*, a story about understanding cultural diversity, which won an award from UNESCO, AHMutawa combined his writing skills with the messages he wanted to convey. He founded Teshkeel Media Group (which now also distributes Arabic versions of Marvel comics) and wrote *Origins* about The 99 teenage superheroes battling the forces of evil. The first 10 characters, led by mentor Dr Ramzi Razem, were created at random. The subsequent characters were given a lot more thought. "We got lucky in that the world took us seriously – more seriously than we took ourselves," smiles AHMutawa. "For example, when I was invited to speak in Egypt, I launched the Egyptian member of The 99. He's called Everlasting. I chose that attribute because Eqypt's the longest lasting piece of

civilisation." So far 23 characters have been created, with plans to launch more as and when the need arises. "If I'm asked to speak in Russia, I'll launch a Russian character!" he says.

The 99 is rapidly going global. In July, a collaboration between DC Comics in the US with Teshkeel Media Group (TMG) means that the West's biggest comic book icons, including Superman, Batman and Wonder Woman, will be teaming up with the 99 superheroes. Also, a 26-part to series is being worked on by production company Endemol – the Dutch company that made the reality to show, Big Brather – which will be released in 2010 in English and Arabic. Negotiations are currently underway with a number of television companies to air the show. And China has shown its allegiance to The 99 too – a deal was signed in August with mobile comic content company Keeta for developing and distributing The 99 throughout the People's Republic of China.

THE STORY BEHIND THE 99

Legend states that in 1258, the Mongolians invaded Baghdad and all the books in the library got thrown into the Tigris River, which changed colour. In the comic book version, the library curators gather the books before the Mongolian invaders have a chance to get them. They transfer all the accumulated history and knowledge of the library books onto 99 mystical gemstones, which are scattered all over the world.

The young superheroes of The 99 come from a range of backgrounds. Each discovers one of the hidden gems and then takes on one the attributes of that gem.

The heroes then have to act together to save the world using their new powers. Other members of The 99 are discovered as the comic's plotline progresses.



The 99 Village Theme Park in Jahra, Kuwait, is the first of at least six parks planned using the comic book heroes as the theming and inspiration





LAUNCHING THE PARK

Fans can now get the superheroes experience first hand at The 99 Village Theme Park in Kuwait. Opende in March, and the first of six parks planned, the park is a joint venture between TMG and United Entertainment & Tourism Company (UETC). Chair and CEO of UETC, Adel Omoor, had seen regular reports of TMG's progress and was impressed by the global media coverage the brand was receiving. "We were looking to update our existing six parks and I could see that incorporating The 99 brand would attract visitors and add value," he says.

In November 2007, UETC approached TMG and Al-Mutawa was asked to present a conceptual theme park proposal for UETC's park in Jahra, 30 minutes-drive from Kuwait City: "We suddenly became special because we're one of the only companies around which hasn't been signed up for Dubai," he comments. "We're small and easy to work with and go into places the big boys probably wouldn't."

Renamed The 99 Village Park, all rides have been branded to fit The 99 concept. Graphics, light boxes featuring the comic books, information on the characters, the heroes walking around the park and a stage show complete the experience, which is aimed at families with children from four to 12-vears-old.

Omoor is aware that it's more of a local park than a destination, with the majority of visitors coming from Jahra and Kuwait City and an estimated attendance of 200,000 visitors a year. An advantage of this is that the park hasn't been affected by the economic climate, which is affecting the rest of the world, "We have visitors from within Kuwait and Saudi Arabia regularly visiting The 99 Village. These countries haven't been greatly affected by the recession, therefore we've seen a steady stream of visitors," he explains. "People tend to visit amusement parks often as they're the only source of entertainment. The 99 Village isn't a premium park and the prices are affordable to all." Entrance to the park is KD0.25 (£0.54, €0.61, US\$0.87) on weekdays and KD 0.50 at weekends. Visitors then pay to go on each ride, which cost from KD0.25 to KD1.00 (£2.14, €2.44, \$3.48). Omoor hopes the park will become a regular outing for most visitors, both as a source of entertainment and from a sporting and educational perspective. School fairs. science competitions, musical shows, family fitness days, competitions, history days, treasure hunts and musical shows will become regular features as well as fashion shows and celebrity visits. Omoor also plans to develop the 30,000sq m (323,000sq ft) park at Jahra by opening new rides specifically designed around The 99 and building an indoor facility with a bowling alley and pool.

TMG AND UETC'S PARTNERSHIP

UETC signed a memorandum of understanding with TMG granting newly-formed company United Real Estate Teshkeelian Company (URETC) a six-year option to build other parks or rebrand existing UETC amusement parks into THE 99 Village theme parks. As part of the joint venture partnership, TMG has acquired equity ownership in the Jahra Park, from UETC. The assets of the amusement park have been transferred to URETC, of which TMG and UETC are the owners. As well as the equity provided by TMG's investment in URETC, TMG will receive a continuing royalty on each park's revenues.

Feasibility and diligence studies are currently being conducted to



The 99 will soon be teaming up with the west's comic book heroes

identify up to another five UETC parks to be rebranded with The 99 concept over the next five years. "We have the potential to become the most prominent operator in the MENA region," says Omoor.

Al-Mutawa is equally excited about The 99 theme park concept. I'm in talks with a potential partner in Saudi about opening a couple of parks from scratch," he says. "They'd be bigger investments and we'd license our characters rather than being involved with the investment side." Currently Al-Mutawa is raising a third round of financing to close by summer 2012. "Part of the strategy is to do what we did at The 99 Village to a couple of bigger parks that UETC owns," he says. TMG has also had interest from an indoor park that's keen to have a corner dedicated to The 99 in each of its 12 indoor parks in the Gulf. "There will definitely be more activity in the next year, whether as standalonse or as part of a complex."

SENSIBLE STRATEGY FOR GROWTH

Al-Mutawa has been careful from the start not to over-stretch himself financially or devote time and energy to a project that's not going to come to fruition. "I didn't want to be vulnerable," he explains. "There's no point having the nicest park in the world that goes out of business because too much money was put into it and it didn't match the expected visitors. That's not good for anybody. We're in one of the most conservative spaces in Kuwait, a few miles south of Iraq. The investment has to be fitting to the potential population and the risks involved. This shouldn't stop us developing in these areas, but developments must make an economic return."

Al-Mutawa is very excited about the announcement from DC Comics that Superman and Batman will be in the same series as The 99. "That's incredible for us," he says. "I'd like to see this as a global concept, as an example of social entrepreneurship. Yes, it's a for-profit venture, but there are a lot of social messages involved. I want kids to learn these messages and the journey it took to get there and to believe that they can do something too." ●







Changing much more than colour

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OPENED BUGWORLD EXPERIENCE IN LIVERPOOL, UK. CONTINUUM'S

JULIANA DELANEY OVERCOMES HER PHOBIA TO VISIT THE ATTRACTION

INSECTS APPEAL

he first thing to mention is that this is my nightmare assignment. I hate anything that has more than four legs or, even worse, has no legs and a slithery wet underbelly.

So why on earth did I agree to visit BugWorld Experience in Liverpool, I ask myself, as with only one foot through the door, I meet a bright young member of staff suggesting leat a giant South American ant. "It has been baked over a mud fire by Native Americans," he adds gleefully, as he proffers the fat, black, multilegged beastie for my delectation.

THE BACKGROUND

BugWorld Experience is a brand new 12,000sq ft (1,115sq m) exhibition concept which opened in Liverpool's Albert Dock on 1 July 2009. Given an investment by its Dublin based backers, Rogers Group Investments, of just under £4m (US\$6.6m, E4.7m), a plethora of industry big names were brought in to bring to life this family-friendly, branded attraction concept which, forgive the pun. clearly has legs.

Deep in a dark comer of the Albert Docks, a cheerful, multi-coloured souvenir shop-cum-entrance now attracts the visitor. It neatly fills a glass-fronted, double height former retail unit where a lifestyle furniture store once sold white leather sofas. A creat bit of creative design work has gone into the attraction's new branded logo which has been used widely, from the entrance area through the exhibition, into the retail area and on the merchandise. The same brand has been used to build a strong outdoor poster campaign that grabs the attention of people driving into the city.

BugWorld achieves a strong street presence both in the city and the dock. This is vital in attracting passing trade from the millions who visit Liverpool's tourist area, as there's so much to see and do here.

THE OFFER

Visitor interactivity starts straight away at BugWorld Experience. Two 6ft (1.8m) animatronic insects becken, and that

young man with the ant snacks, a snip at Σ 1 (\$1.65, \in 1.17) each, gets everyone laughing within minutes. Reception staff are young and enthusiastic, and are all on great form on the day of my visit, indicating strong management behind the scenes.

The first part of the visit is a seven minute high quality film, filled with large-scale imagery of colourful insects and wittily narrated by Craig Charles. A 35-easter film theatre show provides a classic start to the visitor journey and it delivers nicely for the mixed age audience ranging from three-year-olds to grandparents.

Then it's out into the exhibition proper. Again the cheerful colour palette, the strong branding and the themed setdressing all combine to present a high



The Water Zone (above) is one of seven zones at the BugWorld Experience

BUGWORLD EXPERIENCE

Address: Albert Dock, Liverpool, UK Tel: +44 (0)151 7039390 www.bugworldexperience.co.uk

Opening hours: 10.00am - 6.00pm

Prices:

 Adult
 £10.95

 Child (5-14)
 £6.25

 Child (under 4)
 Free

 Concessions
 £8.25

 Family
 £30.00

Guide book

before closing time.

MYSTERY SHOPPER



BugWorld staff help visitors get up close and personal to the 36 species of bug, including giant millipedes (above)

quality look and feel. However, all of this is merely a backdrop to the stars themselves; the creepy crawlies. Anticipating my squeamishness, I took along a colleague, Continuum's financial director, Andrew Pawson. True to form he was more than comfortable getting to grips with the giant centipede, praying mantis and various other bugs which, out of their cages and offered up by chatty staff, are there for visitors to get close up and personal with. Clearly my financial director is used to dealing with slippery customers.

Good management ensures staff interaction levels are met, but no modem management techniques can get a critically endangered Partula Snail out of his house, a Mexican Red Knee Tarantula into the spotlight or a small colony of ants to spread themselves around their grand new display if they don't feel like it. Which of course creates the greatest challenge in presenting animals as the show — they don't always do what visitors want. Hence



BugWorld Experience has wisely invested heavily in computer interactives to compensate for the shy, sleepy or elusive creatures.

The target audience for the attraction is young children with their families, and for them it delivers an enjoyable visit with an element of educational content.

RETAIL

Very quickly the visitor is returned back to the cheery gift shop and it would take a lot to steer children away from the cute and cuddly furry toys. Even my financial director is moved to buy a £15 (\$25, £18) fluffy bumblebee for his tiny daughter.

BugWorld Experience's owners could be lining this concept up for a bit of procreation of its own with a view to populating urban spaces with BugWorlds elsewhere. After all, management advisors to the site are ex Vardon, Sea Life Centres and Grant Leisure, so roll-outs are in their DNA, making the intentions fairly transparent.

VALUE FOR MONEY

Headline admission is high at £10.95 (\$18, €13) as the length of visit, even with tod-diders in tow, is a modest 35-40 minutes. This raises questions over perceived value for morey, recommendation and repeat visit levels. The ad campaign, coupled with a local PR campaign, has attracted a thin stream of visitors, la expected it to have produced a queue by midday, mid-week of

"It's going to be difficult getting the numbers through the door, then getting them to return after the initial hype dies down. A high ticket price and a steady stream of visitors is a sensible approach"

the first week of the summer school holidays and in the first month of opening.

LOCATION

The Albert Docks may be a destination for coach groups, but they head straight for the big-brand Beatles Story close by or just wander. With the Tate, the Maritime Museum and the other Liverpool Museums close by, plus an additional and very nice new 4D Beatles theatre (see Attractions Management Q3 09) at the Pier Head, the competition for day trippers is huge. The local family market, the best market for BugWorld, is less likely to find themselves in the Albert Dock by chance and will be difficult to attract into a typical tourist zone. It's going to be tough getting the numbers through the doors, then getting them to return after the initial hype dies down. Nor will the site accommodate a volume throughput. So a high ticket price and a steady stream is a sensible approach.

MY OPINION

The over-critical might point to the thin content overall and the high cost of staffing a heavily interactive attraction. They might question how the offer can be refreshed in a way which brings in a marketable newness annually. They could probe the cost

BugWorld is made up of seven zones, in which visitors can meet and learn about insects from different parts of the world

of a team of retailers, educationalists, and operators as well as management advisors backed by outsourced marketing and PR contracts, but it worked for Merlin, so why not here? The PR puff claims it's the first of its kind in the UK. The theme

is – the style of presentation isn't. It claims that the site has a real buzz and there's nowhere else in Britain where young scientists can get up close to insects like this. In reality, it gently hums rather than buzzes and isn't unique, as the Liverpool Museum down the road offers a similar hands-on-experience for free.

Will it work elsewhere? In the right urban setting, probably yes. Kids love insects and parents love to please their kids. The owner investor has made the right move bringing in operational experts; sooner or later a branded roll out and competitor to Sealife was going to emerge and this could

be it. BugWorld Experience, already trade marked, is based on existing successful operations in the US, Canada and France.

Overall I liked BugWorld Experience but I just don't think it offers anything unique or different in its core visitor offer. It doesn't go beyond expectations to deliver the next level of visitor experience. And I don't think it has repeat visit appeal. To get visitors going out as ambassadors, the overall package needs greater depth and to offer greater value for money – it needs the wow factor that sharks add to an aquarium or baby polar bears add to a 20.



RIGHT TO REPLY KEITH THOMAS, DIRECTOR, PETERSHAM GROUP

The BugWorld Experience is a high quality visitor attraction, which has been extremely popular since its launch in July, meeting all visitor number and revenue targets.

The attraction is a compact 1,200sq m (13,000sf ft) and has an instantaneous capacity of 180 people, so managing demand whilst maintaining operating standards has been

key to ensure customer expectations have been met.

Since launch, continuous market research has shown an average visitor dwell time of 75 to 80 minutes, with some visitors spending nearly three hours in the attraction. Customer feedback has been excellent and the attraction has exceeded visitor expectations. Liverpoof's Albert Dock,

the setting for the BugWorld Experience, was actively chosen by owners RGI because of the seven million visitors it welcomes every year.

Liverpool is a leading destination which figures third on the UK's most visited city list. The city is constantly growing and over the last few years has seen major investment including the £950m (\$1,550m, €1,100m) Liverpool One shopping centre, £154m (\$251m, €178m) Echo Arena and Convention Centre, the Cruise Liner Terminal, and the soon to be launched £64m (\$104m, €74m) Museum of Liverpool.

Based on this successful outcome, RGI is actively seeking further locations for the BugWorld Experience brand in other cities and countries.







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Fairmont Aquatic Center was one of six pools affected in Salt Lake County

THE CRYPTO FACTOR

What would you do if a large segment of your visitors were banned from your attraction? Waterpark operators can learn from marketing and PR manager Martin Jensen, who tells Kathleen Whyman what happened at Utah's Fairmont Aquatic Center following an outbreak of crypto

What happened?

In the summer of 2007 there was an outbreak of cryptosporidium, or crypto. As a result, a state ban on children underfive in public swimming pools in eight northern Utah counties was imposed from the first week of September 2007 to January 2008.

Cryptosporidium is a water-born illness caused by microscopic parasites. When someone swallows water contaminated with crypto they have violent diarrhoea and stomach cramps. It's spread through water so swimming pools, hot tubs, spa pools, fountains, even natural bodies of water - lakes, rivers, springs, ponds - can all become contaminated with cryoto.

In Salt Lake County we operate 18 swimming pools – 10 indoor and eight outdoor – and we had at least six cases of crypto officially reported in six pools.

How did you get rid of the crypto?

Another requirement, along with banning children, was that we had to hyper-chlorinate the pool. The normal chlorine level of the pool is about two parts per million.

We'd raise it to ten parts per million for eight hours as soon as the pool closed. We'd monitor it overnight and then get the pool back down to two parts per million in time for the morning's opening.

How did this affect you?

The extra chemicals and chlorine were very expensive. Every time we did it, it cost an extra \$300 (£180, €204) and we were doing it twice a week at all our pools, so it affected our budget.

Even though we got the chlorine back down to a safe level, the air in the pools was very strong and pungent, so we had complaints about lung and eye irritants.

How did you reassure customers you were clean?

customers you were clean :

Part of the process was educating the public about what crypto is, how it's caused and how they can protect themselves. One of the most important things we did was tell people that yes, it's been here – it's throughout all of northern Utah – and we're doing our part as pool operators to hyperVisitor levels at the pool are now back to normal, but some days no one came for a swim during the ban

chlorinate every night. We did everything we could, but the public needed to do their part too by taking a cleansing shower before they got in the water and if they were sick to not swim for two weeks after the diarrhoe

How were visitor numbers affected?

Our numbers reduced significantly during the ban. In Fairmont we lost \$70,000 (£35,000, €47,000) in admission fees.

The summer of 2007 was the hottest summer on record for the state of Utah. Because of that, people flocked to the pool in huge numbers and after the ban was announced our pools went from being very full to practically empty – some days no one at all came to the pool.

And after the ban was lifted?

Once the ban was lifted, people still didn't come back. We were concerned and did a number of promotional events with free swimming weekends and still no one came back. But it was the middle of winter. So, in the spring we worked hard with the State



of Utah to educate the public about what we were doing to make sure the water was safe. We've since seen our numbers come back to where they were prior to the outbreak, but it's taken a long time.

How can you prevent outbreaks?

We've installed ultra violet lights, which is new technology being used in swimming pools although it's been used in water treatment systems in cities for years. It's a chamber that all the water in the pool passes though as part of the filtration system. Right before the water's dumped back into the swimming pool, it goes through a chamber of ultra violet lights. The water's basically baked, and any parasites or bacteria are instantly killed so the water that goes back in the pool is clean and pure. We purchased these systems for all 18 of our swimming pools last year at a cost of \$\frac{5}{3}\tmms (250,000,00,6671,000).

How have you educated the public?

Mainly through the media. We had a large group of pool operators who got together

with the State of Utah Department of Health over the winter and created an educational campaign that aired on tv. We've had ads in papers and held press conferences and educational events at libraries and schools. We also have events and information in all of our pools to help people understand the new health department requirements and how they can protect themselves and help us prevent the spread of recreational water illnesses.

The State of Utah has changed the rules for toddlers. In the past there were no requirements re swimming diapers. Now anyone three-years and under has to wear a swimming nappy and plastic swim pants that have tight elastic bands around the waist and legs to keep them water-tight.

What have you learned?

The importance of educating the public and working with the public. We were open and honest with our patrons about everything that was going on and what we were doing, as it was a joint effort in getting their help to stop this spread.

What advice can you give to other operators?

Don't be resistant to change. New regulations can make all the difference. Another practice we've installed is that every hour on the hour, we blow our whistles and ask everyone to take a five-minute break. Parents take the little ones to the bath-room so they don't do their business in the pool. People were resistant to change at the beginning but they now see that these changes are for the better to ensure they have a safe, fun time swimming.

Many organisations, other states and countries have come to us and asked how it happened, what we've learned and how they can prevent this happening in their neighbourhood and community.

How do you feel now?

We're glad to be through it. The new procedures, educating our patrons and the new equipment appeared to have eliminated the cryptosporidium from our swimming pools. We're very happy and relieved that there haven't been any more outbreaks.



The European Museum of the Year Award

Now in its 32nd year, the European Museum of the Year Award is organised by the European Museum Forum, a charity operating under the auspices of the Council of Europe. Candidates are new museums that have opened in the last two to three years. or older museums that have been completely reorganised within the same period.

The annual competition is judged by an international committee of influen tial figures from the museum world. Each year, the Forum receives applications from 50 to 60 museums, all of which are visited by members of the committee. The judges then meet to share their findings before deciding on an overall winner.

Mythical Status

ven if you've never actually been there, the chances are you know something about Salzburg - or, at least, you think you do. Surrounded by stunning Alpine setting and overflowing with Baroque architecture, the fourth largest Austrian city is celebrated the world over both as the birthplace of Mozart and the setting of the 1965 hit film The Sound of Music. In the international imagination, it's a place of unparalleled beauty where landscape, history and music come together in perfect harmony, much like the voices of the Trapp Family Singers.

The Salzburg Museum's provocative storytelling has cast a new, unfavourable light on the city's picturepostcard reputation and won it a prestigious award. Archivist Frich Marx tells Rhianon Howells

how this was done

It's ironic, then, that an exhibition dedicated to undermining this reputation has helped win the city's relocated Salzburg Museum popular and critical success plus a much-coveted award. The museum was named in May as the European Museum Forum's 2009 Museum of the Year - an accolade given once a year to a newly opened or renovated museum seen to be raising the bar in the industry.

Originally known as the Salzburger Museum Carolino Augusteum, the museum was founded in 1834 as a private enterprise, before being taken over by the City of Salzburg in 1849. Since 1966, it's been jointly owned and operated by the City and the Province of Salzburg. Seven years ago, the decision was made to move the museum from its original home to the palatial Neue Residenz, built in 1600 for Prince Archbishop Wolf Dietrich, and, in the process, to completely reorganise the collection. City historian and archivist Erich Marx was brought on board to oversee the €20m project, and the museum, complete with a more marketable and international name, reopened in May 2007.

"The old building was too small and impractical for a modern museum." explains Marx, "The Neue Residenz was

(Left) the Neue Residenz's stucco ceiling, from 1602, is dedicated to the absolutist sovereign archbishops







being used as an administrative building at the time, and as well as being much larger, it had the enormous advantage of being in the centre of the city's Old Town."

THE SALZBURG MYTH

The new museum covers five floors. The Kuntshalle, in the basement, houses large special exhibitions (it's currently showing Art from Japan) while the ground-floor Saulenhalle plays host to smaller temporary displays. Salzburg Personalities, on the first floor, is an annually changing exhibition exploring the lives of nine past residents who made an impact on the city. A room dedicated to Salzburg artist Gottrified Salzmann is on the third floor.

But according to Danièle Wagener, director of museums for the City of Luxembourg and a European Museum Forum judge, it was the museum's permanent exhibition - the Salzburg Myth - that really got their attention. Located on the second floor of the palace, the exhibition eschews the traditional, chronological approach favoured by so many city-history museums in favour of a provocative storyline that aims to deconstruct Salzburg's butter-wouldn't melli-init-smouth reputation.

Marx explains: "The roots of the Salzburg Myth lie in the early 19th century, when the Romantic painters and writers first came here. They were excited by the landscape, the castles and the mediaeval architecture and carried their enthusiasm, in words and pictures, throughout Europe. Politicians and businessmen saw and exploited the economic potential, marketing Salzburg first as a summer resort and later as a festival city."

What this exhibition aims to lay bare is that Salzburg's story is not as idyllic as it

has (literally) been painted. The Romantics' vision, promoted by those in power, screened the real living conditions of the rural and urban populations, while the eternal emphasis on the Alpine landscape and the 'Mozar dutl' successfully masked the less favourable elements of Salzburg's past: occupation by foreign powers, the burdens of war, political corruption, economic depression and religious intolerance.

"The storyline really stood out," says Wagener. "The museum has a very rich collection, but the exhibits have been very carefully chosen to support this theme. The result is a very original and critical way of analysing the city's history."

This is not to say that the exhibition does not give credit where it's due. "The myth was started by the artists who came here in the 19th century," says Marx, "but the landscape, we say, is from God!"



CARING YET ADVENTUROUS

According to Wagener, the "caring yet adventurous way" in which the Neue Residenz was adapted – by Salzburg-based architects Heide Mühlfellner – was another reason the Salzburg Museum was singled out. The primary aim, says Marx, was to restore the building to its former glory but, where necessary, to integrate contemporary features that enhanced the aims of the museum. These include not only practical additions such as lifts, but also innovations such as the Kuntshalle – an impressive 500sq m (5,400sq ft) exhibition space with an illuminated ceiling.

Efforts were also made to ensure the building was as sustainable as possible. Eco-friendly wall-heaters are installed throughout, the ventilation system is capable of recovering 90 per cent of waste heat and the air-conditioning system uses cool water from a nearby underground river. The museum also uses LED lighting, which not only saves energy but is also less damaging to the works of art. According to Marx, the system – specially developed by Swiss company Regent Lighting and Austrian company Lumitech – is the first of its kind ever to be used in a museum.

The museum's display furniture is another strength, says Wagener. Museum

Salzburg personalities who have had a significant impact on the city include philosopher Leopold Kohr

staff were actively involved in designing innovative units with drawers and sliding panels, which allow the most light-sensitive exhibits, such as engravings and drawings, to be protected when not being viewed, while also engaging the visitor. Some units also incorporate multimedia elements, but always in an unobtrusive way. "Electronic media is important," says Wagener, "but it should never be the main attraction."

Another highlight is the museum's World of Children tour, comprising play-focused activities and specially designed spaces with openings so small that only children can get in. These are a great success with younger visitors, says Marx: "You often see mothers lying on the floor saying 'come out, come out, we have to go!"

OUT OF THE ORDINARY

In all respects, the new Salzburg Museum has been an unequivocal success. At its previous site, the museum saw 30,000 visitors a year; last year, it attracted 80,000. In the summer season, 80 per cent are tourists – overseas visitors come mainly from

Germany, the USA, Japan and Italy – but during the rest of the year local visitors and school groups dominate. The Salzburg Museum Association has also increased its membership from 3,500 to 5,500 since the move, with members generating more than €100,000 (£86,000, US\$142,300) a year.

The European Museum Forum award, says Marx, is the icing on the cake. "The award is a great recognition of our work over many years; it enhances our public image and helps us finance the museum."

As director of Salzburg's museums, Marx is also responsible for the Panorama Museum, the Historical Musical Instruments Museum, the Fortress Museum, the Toy Museum and the Cathedral Excavations Museum. The Panorama Museum, also in the Neue Residenz, centres on a huge panoramic painting of Salzburg in 1829, recently restored using public donations of €550 (£472, \$783). He also plans to renovate the Toy Museum and expand the underground Cathedral Excavations Museum.

If the Salzburg Museum is anything to go by, something out of the ordinary might be expected. "Our museum is living proof that a modern museum can inform and also entertain," says Marx. "Our visitors are really excited by it; we're very content."









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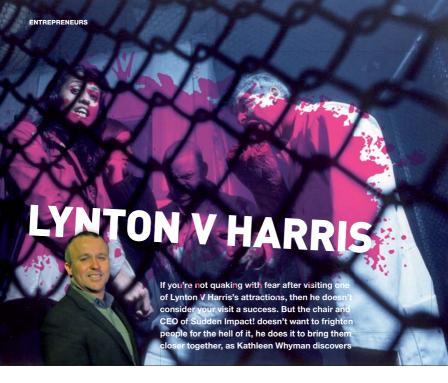
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What is Sudden Impact!?

I founded The Sudden Impact! Entertainment Company in 1991 to create theatrical attractions and shows worldwide. We specialise in original productions and in securing the rights to Hollywood blockbusters to create live, scary experiences for attractions parks, with actors and visuals. The portfolio has included attractions based on the films Van Helsing, The Mummy trilogy, Alien vs Predator, Lara Croft and Prison Break and we tour them worldwide. We'll be doing the same with our latest show. Terminator X, which just won the Best Major Attraction award at its debut at The Royal Adelaide Show. I licensed Night at the Museum recently, so that's going to be the next show.

Our arena attractions have included Madison Scare Garden, The Fright House Extreme Scream Park in Washington and Nightmares – Extreme Scream Park, a stadium show in Philadelphia. We've also done permanent installations for The Tussauds Group around the world.

How did you get started?

I've always been creating and producing and had that promoter's streak in me. I was a DJ at 15 and went on to have a career in tv and radio. I put on concerts, produced events, openings, closings, celebrity events and tv specials. I was well rounded enough by the time I started Sudden Impact to create and produce events.

What was your big break?

My first show in the US was Madison Scare Garden in 1996. I was intrigued by Halloween, as it's not celebrated in Australia, where I come from. On a trip to the US in 1991, I read a brag ad in Variety magazine about the success of the Rockettes Radio City Hall Christmas show, which stated it made US\$32m (£19.8, £22.4m) in eight weeks. I decided to see if I could do the same with Halloween.

I quit my job as marketing director of 10 Australian radio stations, moved from Bondi Beach to Spanish Harlem and spent two and a half years in New York knocking on doors and presenting to anyone who would listen. Finally someone said yes. I phoned my mum in the middle of the night and told her: "We got it! We're opening at Madison Square Cardens!" It was a truly awesome experience. The show ran for four seasons from 1996 to 1999 and we sold more than 250,000 lickets.

What did you do next?

At that point we were the only guys who'd done anything of that size and scale in an arena. Bobby Goldwater, who had been an executive on Madison Scare Garden asked us to bring the show to Washington. We were due to start the tour on September 11th 2001. We had the containers ready to leave our studio in New Jersey, You know what happened. I phoned to check on everyone, then rang Bobby and said: "This isn't going to happen." It was a \$2m (£1.2m, £1.4m) show, but, obviously in the light of things, money wasn't an issue.

The following year, 2002, we tried again, but talk about being bloody cursed – that









was the year of the DC sniper. We were in rehearsals in DC when the first shootings happened. I had to go to the UK (that year we launched a number of attractions for The Tussauds Group) and tuned into CNN as soon as I arrived and unfortunately someone else had died. I said: "No one's going to turn up." To get to that venue you had to drive or catch a train and people just weren't leaving their homes.

We took those assets to The Spectrum in Philadelphia and ran the show there for three years. It was very successful until the building was slated to be demolished. That really was the end of that show!

What's your latest attraction?

Alien is Predator is You (AVPA) is a new laser experience at Dreamworld, Australia, which is just rocking. We've taken laser tag to the next level possible and blown everyone away. Everyone saw laser tag as being stuck in the 80s and 90s. We took it out and gave it a bullet and took it to the top. That's very exciting.

(Top left) Alien vs Predator vs You brings laser games into the 21st century; (top and bottom right) Nightmares – Extreme Scream Park, the stadium show in Philadelphia, may well give you nightmares; (bottom left) The Chamber Live show, which ran at Madame Tussaud's London

We just tested our latest interactive show, Terminator X: A Laser Battle For Salvation, in Adelaide and it was so successful we've booked it into Adventure World in Perth for the summer season 2009/2010 and will then go to the US in the spring of 2010.

Why movie experiences?

It started in 2001 when I went to Australia and booked *The Mummy Returns* for Dreamworld and put it on in the June school holidays. I wanted to prove that it doesn't have to be nightime or Halloween for an attraction to be enjoyable and scary.

I've just licensed Night at the Museum from Fox. It's going to be a good brand for

us, as it's a family-friendly subject matter and we can create a scary experience or a laser one. I'm also looking at *War of the Worlds, The Wolfman, Sherlock Holmes, Saw* and the tv show 24.

What's the appeal of scaring people?

I was with a reporter in Madison Scare Garden once at the end of the show where people come out. Some were crying, others were laughing. The reporter asked if I got upset scaring people, I said he was missing the point - they were talking to each other. Families are breaking up at a rate of knots - we want to bring them together. Entertainment should move people. It should give an emotional response. The wonderful thing about live theatre and creating these interactive, immersive experiences is that people discuss it and relive it afterwards. A mechanical ride doesn't give that connection. Kids say being an actor in our show would be a cool iob. No one says it'd be cool to be a seat in a rollercoaster.



Have you been affected by the current economic climate?

With the financial crisis, our touring experiences have proved to be a great product. We can come into a park as a rental unit for the season and then leave. It's a very fluid model versus the capital cost of a \$5-\$10m (£3m-£6m, €3.5m-€7m) rollercoaster, which isn't easy to get through the board right now.

What's next?

I want the company to be a worldrenowned, well-respected global entertainment company. I want Sudden Impact! to be a pipeline to Hollywood and provide branded and original entertainment that can go to countries worldwide.

We've done the hard graft and matured the product. We've proved that our shows work anywhere in the world, any time of the year, in venues ranging from a historic attraction like Warwick Castle, to Madison Square Garden and from a theme park as an up-charge to a headline attraction.

The goal now is to have a solid distribution system worldwide. I want to get big enough to have the ability to pull the trigger quicker with multiple units. So, instead of having one, two or three units, I need to be able to build 10 units and go bang!

The really big news is that I've just returned from Copenhagen where we'll be designing and producing a permanent scary attraction inside the world-famous Tivoli gardens. So, from Madison Square Garden to Tivoli Gardens, Making the world a scarier place!

THAT PEOPLE DISCUSS THEM AFTERWARDS. A MECHANICAL RIDE DOESN'T GIVE THAT CONNECTION. KIDS SAY BEING IN OUR SHOW WOULD BE COOL NO ONE SAYS IT'D BE COOL TO BE A SEAT IN A ROLLERCOASTER

ABOUT LYNTON V HARRIS

How would you describe vourself?

A poet, a thinker, a writer and an adventurer. My writing reflects what I believe - we should live our lives and have no regrets. It's funny; I scare the hell out of people, but write profound poems.

How would your critics describe you? Enthusiastic, exuberant,

and a pest - I'll annov them until they say yes.

What have been the highs and lows?

Lopened Madison Scare Garden in 1996, but my father died in 1995 and didn't get to see it. It was the highest and lowest point of my career.

What drives you?

I was adopted and I'm driven as a way of saying thank you to my parents.

Who do you admire in business and why?

I'm a huge fan of Richard Branson because he looks like he's having fun and he cares about the customer. Lalso like Donald Trump because he's so over the top.

Favourite book?

Jonathan Livingston Seagull. I was 10 when I read that book and it's become my forever book. I've lived my life as Jonathan. So much so that my mum calls me Jonathan! It's about inspiring people and living richly without being rich.

Hobbies? Writing, travelling and

interacting with people.

Biggest challenge? Madison Scare Garden.

For two and a half years I lived on \$1 hotdogs and, if I was in the money, a slice of pizza. It was a huge challenge but I saw it as an adventure.

Being ripped off by people is hard. That's the most difficult thing in business. You trust people and they use that against you. I don't understand it.

What would you do if you lost it all?

Something would pop into my head and I'd have a crack at that. I'd still be doing something that inspires people and be creating things. I'd like to do different types of shows or films and tell stories in different mediums.

Best piece of advice? Really live your dreams.

Fly high, fly far, believe your wings will take you. If you trust the universe, you can glide a lot further than you think you can.

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SHOW REVIEW





The theme of Ecsite's 20th annual conference was evolution and revolutions in science. Almost 1,000 delegates attended the 75 sessions



ECSITE09

Ecsite's 20th conference took place 4 – 6 June at the National Museum of Science and Technology Leonardo da Vinci in Milan.

his year's conference attracted a record 986 delegates from around the world.

The exhibition, held alongside the comprehensive programme of seminars and keynote speeches, saw a total of 60 exhibitiors show off a wide range of products and services. Both figures show significant growth on 2008, when the conference recorded 797 delequets and 52 exhibitors.

The theme of the conference

was evolution and revolutions in science. According to Aliki Giannakopoulou, Ecstle's conference coordinator, the theme picked itself. "This year, 2009, marks the 20th anniversary of Ecstle," she says. "We wanted to discuss all the changes, challenges and trends that have taken place during those 20 years."

ECSITE ANNUAL CONFERENCE 2010 DASA, Dortmund, Germany, 3 – 5 June

In 2010, the Ecsite Annual Conference meets the European Capital of Culture in Dortmund, Germany's green metropolis. The year's most important European gathering for science centres and museums will be hosted by DASA, an institution which combines a traditional museum and modern science centre with a distinct creative flair, to provide an innovative experience of yesterday's, today's and tomorrow's world of lows.

"Science centres and museums are places of innovation and no innovation is possible without any risktaking and the will to break new boundaries" The conference sessions reflected the theme, with speakers discussing the role of science centres and museums and identifying future trends. "We received 200 sessions proposals last year. From these, we selected 75 sessions," Giannokopoulou explains. "All the sessions were carefully selected to reflect the best of our field today."

During the conference, Ecsite launched a networking group called Nature. The initiative has been set up

to strengthen the collaboration between science centres, science museums, natural history museums, research institutions, universities, aquarims and zoos. The aim of Nature will be to create a more coordinated exchanging of expertise, knowledge and collaborations between European institutions. The launch was supported by a pre-conference session and a further session during the conference, explaining the scheme's goals and ambitions.

Another theme that was covered during the networking events was the sense of community that the conference is able to create, and the opportunities that meeting people in the sector offer. The exchange of opinions and ideas was lively, as 49 countries were represented at the event – another record.

As the conference closed, the venue for next year's event was confirmed as being the DASA science centre in Dortmund, Germany.

"Next year, the conference will deal with how risk can be a source of creativity," said Giannakopoulou. "Science centres and museums are places of innovation, and no innovation is possible without risk-taking and the will to break new boundaries. For Ecsite's 2010 conference, we invite you to abandon your comfort zone!"

DRAWING ON EXPERIENCE

Kate Brindley took the world by surprise this summer by hosting graffiti artist Banksy's biggest exhibition at Bristol Museum. She tells Kathleen Whyman why, rather than bask in the glory, she's moved straight into a new role as director of mima

t 7.40am on 13th June, Kate Brindley appeared on Radio 4 to announce the launch of Banksy's controversial exhibition at Bristol Museum. Within hours there was a four-hour queue to get into the museum and international journalists were flocking to Bristol.

The controversial graffiti artist, famed for his anti-establishment and anti-capitalist artwork, which he has secretly painted and planted around the world, drew 400,000 visitors to the museum during the exhibition's seven-week run. It was a massive coup for Brindley. Banksy has built a career on subverting institutions and had, up to this point, resisted a large-scale exhibition for a lengthy period of time. Declining offers from major museums and galleries worldwide, he instead chose Bristol Museum to showcase his work (the artist is believed to come from Bristol). No one was more surprised than Brindley, the director of museums, galleries and archives at

ABOUT BANKSY

Banksy is a quasi-anonymous English graffiti artist. He's believed to be from Bristol, UK but there is substantial public uncertainty about his identity and personal and biographical details. His graffiti started appearing during the late 1990s. His street artworks, which combine graffiti writing with a distinctive stenciling technique, are often satirical, tackling topics such as politics, culture and ethics.



Bristol, who admits: "I thought it was a joke at first." Once Banksy's PR assured her it was for real, she "grasped the opportunity with both hands".

SECRET SERVICE

The initial call came in autumn 2008 and the exhibition opened in June 2009 – a quick turnaround from idea to launch. Part of the need for speed was the necessity to avoid exposure. Banksy's anonymity is part of the brand, so it was vital the exhibition was kept secret until the day it opened. "It's about him launching into the public realm with no trail. He'll just appear, as he always does,"

explains Brindley. The exceptional circumstances demanded contractually and conceptually that no details were released or the offer would be immediately withdrawn. Consequently, only Brindley and a few members of the management team were aware of the covert project. They worked with Banksy's team, never with Banksy directly – although he oversaw the installation, staff were unaware of who he was among the crew. The museum closed for two days to set up the exhibition. At this point more staff had to be told, although the council was still kept in the dark. Ensuring the secrecy of the project was protaced was perhaps the biggest challenge for Brindley. "There was a lot of rumour mongering," she recalls. "He has a huge following and a couple of times there were frighteningly accurate allegations on the internet. We had to deny it and be as vague as possible."

BURNING ENQUIRY

The exhibition involved more than a hundred sculptures, stencils and oil paintings including a burned-out ice-cream van in place of the museum's enquiry desk, a model of Stonehenge made from portable toilets, a sculpture of a riot police officer astride a child's rocking horse and an animatronic display featuring chicks as chicken nuggets. Many of the exhibits were hidden in existing displays - a rat wearing sunglasses and a rucksack was planted in the natural history section - inviting visitors to seek them out. One of Brindley's favourite works, called Flights to Cairo, depicted an easyiet billboard poster in a Claude Lorrain painting hung next to a



landscape from a similar period. "It's brilliant." enthuses Brindley. "I really enjoy his sense of humour and the way he put the work in the art gallery. He clearly knew the building very well."

While the majority of people were delighted to get the opportunity to view Banksy's work, there are those who view him as a vandal and feel he shouldn't be revered. Brindley welcomes the feedback. "I'd expect that from the way he's developed his practise," she says. "He's got a very political element to his work. Debate is inevitable and good and healthy. I've never shied away from controversy," she continues, "When you show challenging works people can take it badly or engage with it positively. That's part of the role of a public museum and gallery. We don't want people to feel offended, but if there were no debate it would be very diluted."

WHAT KATE DID NEXT

Brindley has had a number of successes in her career. When she was head of arts and museums in Wolverhampton from 2002 to 2005 she secured the final part of funding for Wolverhampton Art Gallery's extension, which won a RIBA award. "Developing a



new Pop Art gallery and exhibition space and remodelling the 19th century building with a contemporary entrance was an extremely satisfying project," she says. And in her role as director for museums, galleries and archives in Bristol from 2005 to 2009, she secured money for a new £26m (US\$414m, e28.3m) Bristol museum on the harbour-side, which will tell the story of Bristol. Despite these achievements, Brindley's waver that the Banksy exhibition will be hard to trump. "This will be a difficult achievement and experience to beat," she acknowledges.

Brindley had two options – sit back and enjoy the accolades or throw herself into a new challenge. She chose the latter. A



Banksy's works 'Flights to Cairo' and 'How do you like your eggs?' were part of the Banksy v Bristol Museum exhibition, which Brindley organised and set up in secret

month into the Banksy exhibition, she took a new post as director of museums and galleries overseeing mima – Middlesbrough Institute of Modern Art – and the Dorman and Cook Birthplace museums.

Mima was set up two-and-a-half years ago and already has a very good reputation. Brindley's charged with taking it to the next stage, which she's full of plans for. "I want to build on mima's success and secure more financial support externally," she says. "Mima has funding through the

BANKSY VERSUS BRISTOL MUSEUM - LIZ TERRY

We made the two hour drive to Bristol fully aware that we'd be facing a three hour queue and went armed with water and newspapers to join the line which filled a street adjacent to the museum and snaked halfway round the block.

Museum researchers polled visitors to find out distances travelled. Many were from far away - some from overseas:

I've never experienced a more good natured or diverse crowd - families with

toddlers, couples young and (very) old, heavily pierced and tattooed teenagers – all standing in the sun together.

Once inside, the treats began. The ground floor was dedicated to Banksy's artwork and installations, while the upper floors promised 30 further works scattered throughout the permanent collections - you had to search to find them.

Although the ground floor was extremely satisfying, the scattered artworks were the real genius of the exhibition, as they opened up this dusty and traditional museum in ways I doubt have ever been seen before.

The sight of the tattooed and pierced teenagers self-consciously clomping through and diligently searching the ceramics collection to find a Degas-style figure wearing a gas mask or the mineral gallery to find a dilido statactite will stay with me for a very long time.

arts council and town. I want to broaden that funding base through partnerships and working with the community. Mima did a very successful pre-launch programme working with local people and communities and it's important we build on that."

One such recent project involved working with a group of young people to write an interpretation around the Gerhard Richter exhibition, Modern Times. "They produced a newspaper and followed the curatorial process - interviewing people from The Tate and other collections," explains Brindley. "It'll be distributed to households all over Middlesbrough. The quality of that experience will knock onto their communities. This is an example of what we want to do more of."

THE BIG DRAW

Another priority job for Brindley involves the exhibits. Rather than taking on the impossible task of filling all the gaps in mima's collection, Brindley plans to build on the strengths that the gallery already has. "We've got one of the best contemporary jewellery collections in the country



and a significant drawing collection," she says proudly. "Mima's been very successful in bringing in external funding for its collection and developing. It's had an award from Northern Rock for developing contemporary art and has a five-year deal with the Art Fund for purchasing American drawings. Drawing is a key strength of the Middlesbrough art collection. These are two things we need to successfully complete, get the collections on display and

The Modern Times people who produced a newspaper on mima's Gerhard Richter exhibition

publicise them. Then look at the next stage of developing the collections."

Brindley's aware that the job isn't without it's difficulties. "Resourcing is a challenge," she admits. "The uncertainty in public finance is a consideration for us all at the moment. However, cultural facilities in times of recession are a beacon of confidence and hope and community spirit. I need to take advantage of that and show our worth and value to the town. Another challenge is continuing to be relevant to our audience," she continues. "When you've just opened you're all shiny and new and have the advantage of good press. I need to consolidate that and continue to be relevant so we get a core, loyal audience."

Although Brindley loved her job in Bristol, she's aiready full of warmth for both mima and Middlesbrough. "Mima is an amazing building and facility," she says. "It shows incredible commitment from the council in using culture for regeneration purposes. It's got tremendous support from the town. Middlesbrough's got a bad press for being the worst town in England, which I dispute. That's an attraction for me – I'm working in a flagship venue in a deprived town. There's a spirit about the town I really like – a 'can do', positive attitude."

Due to a contractual arrangement, Brindley was unable to even hint about the forthcoming Banksy exhibition in her interview for the position at mima. "They first found out about it when I was interviewed on Radio 4," she laughs. "It's been quite a talking point in Middlesbrough. Everyone wants to know if I can get Banksy to do something here. If he'd be gracious enough to do one in Middlesbrough to help us improve the town's reputation, I'd love him to - that's an invitation!" •

ABOUT MIMA

Mima is a gallery of modem and contemporary art. Opened in January 2007, it was designed by Erick van Egeraat Associated Architects.

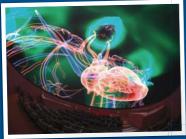
The gallery hosts temporary exhibitions of fine art and craft from 1900 to

of internationally acclaimed artists, the programme includes paintings, drawing, ceramics, jewellery design, sound, film, mixed media, photography and sculpture. Exhibitions change every quarter.



rne building includes live exhibition palleries, two project spaces, education space, sound space, event space, wo collection stores, a conservation studio, a caté, shop and garden.

Planetariums: all grown up.



Songam Observatory Definiti theater, South Korea Screen image: fulldome show Astronaut, produced by National Space Centre



Large-screen Definiti projection system, graphics by Sky-Skan and the National Space Centre, Challenger Learning Center, South Korea



Definiti GaiaSphere rear-projection dome installation, Kifissia, Greece

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You'll be surprised at what we're doing with planetarium technology.

Sky-Skan's current lineup of Definith "projection systems is providing spectacular imagery in some surprising places, such as the first fulldome theater on a cruise ship (our stunning retractable dome on the Queen Mary 2, pictured below). Sky-Skan's Definiti Galas'phere product, pictured above, is a new type of exhibit that brings planets almost close enough to touch. And we've been developing and distributing some amazing new 3D data sets and playback shows. We've even launched a 3D stereo projection option (Definiti 3D) for the

The visuals in a Definiti theater may surprise



fly-throughs of molecules to immersive shows from the top producers in the world, Definiti theaters and projection system are doing some amazing things with the latest technology and top-notch creative tallent. Contact us for a closer look.



What's different about Definiti theaters and projection?

- Extremely high resolution (beyond HD quality) with rich color and high brightness on both curved and flat screens.
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- Innovative theater designs open exciting new possibilities.
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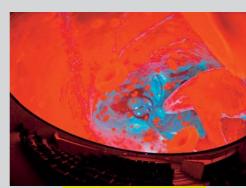


NEW DIRECTIONS

As the United Nations' International Year of Astronomy draws to a close, Liz Terry takes a look at recent openings and the innovators behind the scenes

ew technology is making investment in planetariums an ever more compelling option for operators. Flexible domes and digital projectors mean that a wider than before range of content can be displayed in the same space, enabling operators to offer educational content side-by-side with more commercial alternatives.

New systems allow full-dome animations. Movies and planetarium shows can run consecutively in the same domes, bringing planetariums into competition with other large format venues. As commercial cinemas begin to embrace 3D, with projects like Disney's \$US10m 3D remastering of Toy Story and Toy Story 2, the boundaries are blurring even further.



STANLEY HO SPACE THEATRE Hong Kong

Supplied by: Sky-Skan Owned by: Hong Kong Space Museum Opened: July 2009

The Hong Kong Space Theatre has invested HK\$34m (E2.8m, €3m, US\$4.4m) to create the Stanley Ho Space Theatre – a Sky-Skan Definiti installation. The planetarium has a giant 23m (75ft) dome screen and seats 270 people. Definiti DigitalSky 2 software runs everything from 8K and 4K playback streams, cutting-edge real-time graphics generation and 5.1 sound, to total theatre control via SPICE Automation.

Visitors can tour the universe live with interpretation by skilled presenters or, alternatively, hit a push button to watch a playback show in ultra high-resolution.

The Sky-Skan's Definiti 8K projection system consists of six Sony SXRD 4K projectors fitted with Definiti H0 8K lenses, 24 Definiti graphics computers pushing 53 million pixels (the screen has 38 h pixels after masking/blending) giving 24 HD streams at once, which are blended into one giant seamless picture. Sky-Skan's SPICE Automation handles theatre control.

The planetarium's dome was refinished as part of the renovation. The existing framework is from Astro-Tec (www.astro-tec.com), while the dome was re-sheeted by Spitz prior to this renovation.

(Right and above) The Stanley Ho Space Theatre, Hong Kong Space Museum has a 23m dome screen

What's special?

Museum curator, Chan Ki-hung, asys: "With a resolution exceeding 53 million pixels, the new digital planetarium system boasts the highest resolution in a theatre. Only two theatres in the world, Beijing Planetarium and the Hong Kong Space Museum, can project such ultra-high definition images.

Coupled with Sony's latest SXRD projectors, which were introduced in early 2009, the Space Museum is one of the most advanced digital planetariums in the world.

"The new system can project full dome animations or movies, which couldn't be achieved by the old projector," K-hung continues. "Audiences can gaze at the starry sky at any time and from any place in the universe. They can also fly to a star or other celestial object and view it in a rendered 3D model. They can even fly to the end of the observable universe and study the large-scale structure of the universe.

"The new seats are installed with a multilanguage system offering narration in more than four languages for a show. The newly designed display unit installed on the armrest of the seat allows individual viewers to select languages and use the interactive features, such as sending short messages



among audience members and taking part in real-time games. A wireless headphone system makes it more convenient and comfortable for the audience to use."

Shows: Extreme Planets, which was pro-

Shows: Extreme Planets, which was produced by Clarke Planetarium and Dawn of the Space Age, produced by Mirage3D.

Extreme Planets is screened until the

Exterine rianes is softened until the end of October at 3.50pm and 7.20pm daily, with an additional screening at 12.20pm on Saturdays, Sundays and public holidays. Dawn of the Space Age is screened until the end of December. Show schedules are 2.40pm and 6.10pm daily with an additional screening at 11.10am on Sundays and public holidays.

Admission prices: HK\$32/HK\$24 (£1.93/£2.57 \$US 3.00/\$4.12) for adults for standard/front seats, HK\$16/HK\$12 (£.96/£1.28, \$US 1.54/\$2.00) for children, students and seniors.



COSMONOVA PLANETARIUM

Swedish Museum of Natural
History, Stockholm, Sweden

Supplied by: Global Immersion **Owned by:** Swedish Museum of Natural History

Opened: October 2008
The new planetarium sits alongside

Sweden's only IMAX® theatre where films are shown in the world's largest format on a 760sq m (8,200sq ft) Spitz dome-shaped screen. In addition, digital 3-D films are on offer to draw visitors deeper into the adven-

ture and the digital planetarium takes

In terms of hardware, the planetarium has six Fidelity¹¹ projectiondesign® projectors, a Christle® CP2000-ZX projector, a Global Immersion Media Server cluster and a Custom Global Immersion control desk and wireless theatre control panel.

The 3D system requires 550 pairs of active stereo 3D glasses and a Custom Global Immersion 3D glasses washing system to keep the kit clean, while films are screened on an IMAX® Dome Projector.

The system is driven by immersive theatre specialists Global Immersion's Media Director and Uniview™ software. The

sound system is also by Global Immersion. The 262 seats were supplied by Figueras. Shows: Black Holes: The Other Side of Infinity, Cosmic Collisions, Deep Sea, Fly me to the Moon 3D, The Search for Life: Are we Alone?, Grand Canyon Adventure: River at Risk and Sea Monsters 3D: A Prehistoric Adventure. Live space presentations and lectures are also on offer. What's special?

Cosmonova is the first combined large-format 3D and full dome theatre. This makes it very flexible when it comes to programming and creating the visitor experience. Admission costs: Adults 80 SKFR, (£7.00 £7.70 \$US11.40). Under 18s are free.

TELLUS PLANETARIUM Cartersville, Georgia, US

Supplied by: AV-Imagineering
Owned by: Tellus North West Georgia
Science Museum

Cost: \$500,000, excluding building costs
Opened: January 2009

Briefing: The Tellus Planetarium opened at the start of the International Year of the Planetarium. The 120-seat digital facility has a 40ft (12m) Astrotech dome, while the projector is a Konica-Minolta MediaGlobe II. The software and sound system are by AVI. The planetarium offers 63 shows a week

and had already welcomed over 80,000

visitors in its first eight months of operation. Tellus offers visitors a variety of pre-programmed shows, as well as regular live tours of the night sky. The new facility is part of the Northwest Georgia Science Museum in Cartersville, Georgia, US. Shows: Oasis in Space, Zula Patrol, Two Pieces of Glass and Live Tour of the Night Sky. Shows run every 45 minutes

What's special?

The live show features the local sky and changes each day, giving visitors the chance to view the entire skyscape, regard-



less of the weather outside and without the impact of light pollution.

Admission: \$3.00 (£1.8, \in 2) in addition to the \$12.00 (£7.40, \in 8) for the museum.

JONES AND JONES

Greg Murphy of Jones and Jones architects in Seattle, US, talks about his firm's zoo desian philosophies and work on Amazon and Beyond at Miami Metrozoo



What was the brief?

The idea for the Amazon and Beyond exhibit came from a question: "What's the best thing the zoo can do to help save the earth's highest priority biodiversity hotspots?" From this came the concept of immersing visitors in re-created South and Central American rain forests to educate and inspire them into promoting conservation abroad. It's been wildly successful and we've had record attendances at the zoo.

What was the design inspiration?

The design was inspired by some of the most awe-inspiring landscapes in the world - the cloud forests of Panama and Costa Rica, the Amazon Forest, Atlantic Coastal Forest and the Pantanal, Brazil coupled with the indigenous cultures that have grown from and subsist within these unique and fragile environments.

What was the biggest challenge?

Hurricanes! Miami, Florida, is one of the few climates in the United States where a



tropical rainforest could be created with a high level of authenticity. Unfortunately, with this climate comes the risk of hurricane winds and rain. Special care went into the design of each structure and selection of each plant to protect the exhibit.

What's your favourite part?

The immersive experience. In Amazon and Beyond, the visitor isn't looking at an animal in a distant exhibit; he's immersed within the natural environment and allowed to discover unique plants and animals throughout the journey. Every plant, animal, rock, building, furnishing and even the musical score communicates the world of the American Tropics.

What else are you working on?

Jones and Jones is a diverse practice, but all our projects share the common themes of nature, culture and community, We're administering the construction phase of the new Cultural Museum for the Southern

AMAZON AND BEYOND

Opened: 2008

The offer: A 27-acre, US\$50m (£30.2m, €35.5m) exhibit housing more than 600 animals from South and Central America. The attraction features three tropical rainforests recreating specific natural habitats: The Cloud Forest, The Amazon Forest, and the Atlantic Forest. The site also includes Fiesta Plaza, which offers food and shopping, street theatre, a children's fountain and orientation pavilions allowing close encounters with smaller and friendlier creatures.





Ute American Indian Tribe in Colorado, and recently completed the design for the proposed Agua Caliente Cultural Museum for the Agua Caliente Cultural Museum for the Agua Caliente Band of Cahuilla Indians in Palm Springs, California. Our current wildlife conservation work includes continued design of Africa Livel at San Antonio Zoo, a new East African Savanna and Congo Swamp Forest Gorilla exhibit at the Dublin Zoo and masterplanning for Fota Wildlife Park in Cork, Ireland.

What makes the ultimate zoo?

The ultimate zoo provides visitors with the opportunity to experience the diversity, beauty, and wonder of the natural world. It's a place where visitors not only see animals, but become a part of their worlds. In Amazon and Beyond, visitors explore three different tropical rainforests, encountering animals within the lush vegetation and learning about Mayan and Amazonian culture and mythology that have grown from these environments. Similarly, at the Arctic Ring of Life at the Detroit Zoo, guests journey from the tundra into glaciated waters experiencing the world of polar bears, seals and arctic foxes while also learning about the human Inuit cultures that have evolved within this harsh environment. A visit to the ultimate zoo leaves one with a heart-felt connection to the natural

At the zoo, we are guests in the animal's home. By designing from the animal's viewpoint, a unique and wondrous environment results, providing an exciting and captivating experience for the visitor

environment and our fellow animal and human inhabitants of this world. Ultimately, it inspires return visits and impassions people to take action and promote wildlife conservation in their daily lives.

What research goes into

designing an animal's habitat?

Our designers have journeyed to the arc-

tic, the deserts of Oman, the rainforests of Brazil and the savannas of Africa to better understand the habitats we are creating. We study these places and tap the knowledge of those who live within them, often engaging indigenous people and field researchers alike. To create the Amazon and Beyond experience at Miami Metrozoo, we sought out Dr Nicole Duplaix who has devoted her life to living among and studying giant river otters in the Amazon. While we are designers, we are also students of science and art, always seeking to better understand the world we live in.

How do you balance the needs of both visitors and the animals?

Every habitat we create places the animal's needs first. This requires a deep under-standing of the natural environment. At the zoo, we are guests in the animal's home. By designing from the animal's viewpoint, a unique and wondrous environment results, providing an exciting and captivating experience for the zoo visitor.

What are the trends in zoo design?

The movement toward immersive exhibit design has revolutionised zoos over the past 30 years. We're leading into the next phase of this movement by introducing cultural resonance into zoo design. In addition to creating authentic natural habitats from the soil, plants, rocks and water of a place, we're introducing the art, architecture, music, recreation and mythology of the human cultures that have grown from and often co-exist with the natural environment.

Instead of creating an artificial, themed environment, we want to communicate authentic aspects of our planet's diverse human cultures and their dependency on the environment to inspire compassion and commitment to conservation of nature.

What's next for zoo design?

The lives of most people are becoming more sanitised and farther removed from nature. Zoos play an increasingly important role in reconnecting us to nature. Countless species of plants and animals are now extinct and several animal species survive only in zoos. When we talk about zoos, we're speaking more about wildlife conservation and cultural connection. While zoos provide a much needed opportunity for family recreation, they're also growing to become our window onto the world and its conservation needs.

What's your biggest influence?

Each of our projects is influenced by the nature and culture of its context. For example, the recently completed Mercer Slough Environmental Education Center grows out of the wetlands and hovers within the tree canopy of the site, providing a view of nature seldom seen. Our projects are often praised for being rooted to their environment and setting precedents for how buildings and spaces should be integrated into their surroundings.

How do you work with clients?

We listen. We listen to our client, we listen to the intended users of the project, and, most importantly, we listen to the land itself. We take the needs and desires of each and synthesise them with the stories that the land tells us about its needs and the opportunities it provides. From this we

OTHER PROJECTS

Arctic Ring of Life, Detroit Zoo Exhibit opened in 2001 featuring habitats from tundra to taiga to icecap, and an underwater Polar Passage showcasing polar bears and seals Mercer Slough Environmental Education Center – A 320-acre wetland park opened in Bellevue, US, in autumn 2008 Campo Gorilla Reserve, Los Angeles Zoo Gorilla habitat opened in 2007 featuring forest canopies draped with vines and close up

observations in two viewing areas

The lives of most people are becoming more sanitised and removed from nature. Zoos play an increasingly important role in reconnecting us to nature



develop a program of activities, define a concept that will make this place unique, and choreograph the intended visitor experience. These then become the guiding vision that directs the design decisions.

How do you decide on materials?

While we try to keep apprised of all the innovative products and materials entering the market, ultimately, we look to nature and indigenous cultures for guidance in material selection. We look for materials that are locally available, durable in the region's climate, and culturally appropriate to the design. Often we learn from historic cultures that have been building in a particular area for centuries, gradually adapting their designs to the climate and resources.

At Amazon and Beyond, visitors are quests in the animals' homes

Have eco-friendly building practices changed the way you operate?

We've always, since opening in 1969, designed sustainable places, sought to minimise energy and water consumption and used renewable materials. In recent years, information and products have become available to assist us with this approach. The LEED accreditation and certification process created by the US Green Building Council has heightened awareness, stimulated a large body of design research, and motivated material suppliers to provide more information and more eco-friendly products.



THE GLOBAL RESOURCE

FOR ATTRACTIONS PROFESSIONALS

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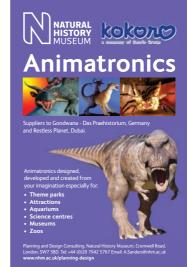
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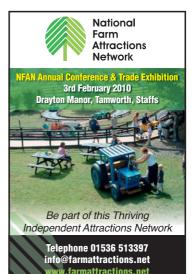
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VARIETY SHOW



Every museum offers something different, be it showcasing the remains of a city, celebrating an iconic beer or teaching science through play. So each museum needs a different design approach. Kathleen Whyman asks some of the leading designers about their very different projects

THE HEINEKEN EXPERIENCE

Designer: BRC Imagination Arts, US Client: Heineken International Location: Amsterdam, The Netherlands Size: 2,333sq m (25,000sq ft)

The Heineken Experience in Amsterdam, The Netherlands, reopened in November 2008 after undergoing extensive remodelling and expansion.

With the addition of a new floor to the visitor experience, BRC's revamped attraction immerses visitors in the world of Heineken with a simulator that explains the company's brewing and bottling process. Visitors can also create a personalised bottle to take home. The experience also includes new media elements, interactive exhibits and an expanded rettill area.

BRC's brief was to create a world-class attraction, which is able to compete in the very mature Amsterdam tourist market, and turn tourists into Heineken ambassadors. BRC underwent a research tour with the client through the US and discovered that patrons often got disappointed by the way Heineken beer was served – without a foam layer. In the new Heineken Experience, a full explanation is given to visitors as to why a foam layer is needed on the beer, so that they go back to their local bars and tell the bartender.

In the design stage of the attraction, BRC worked with Electrosonic for the AV equipment, Mansveld for AV support and lighting, Alterface for the interactives, Bitmove for the video mail stations and Bosch Beryth for the simulators



Designer: Bernard Tschumi Architects, New York/Paris with Michael Photiadis, Athens Location: Athens, Greece Size: 226,000sq ft (21,000sq m) with 150,000sq ft (14,000sq m) of exhibition space

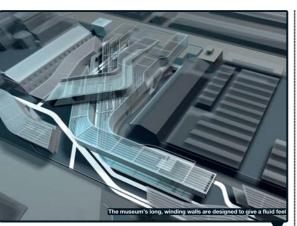
The remains of an ancient Athenian city are among the highlights of The New Acropolis Museum, which is 10 times the size of the original Acropolis museum. Tschumi Architects built a base which hovers over the excavation site on 100 concrete pillars, so visitors can fully appreciate the remnants through glass floors. This base level contains the main entrance lobby and temporary exhibition spaces. A glass ramp leads to a doubleheight space on the middle floor, which showcases collection galleries from 1000 BC to 700 AD. The top floor of the museum houses the Parthenon frieze. The gallery is rotated 23 degrees from the rest of the building, so it aligns with the Parthenon, just 1,000ft (305m) away, and has glass walls offering visitors a panoramic view of the ancient temple and surrounding city.

Bernard Tschumi created a simple and precise design to invoke the mathematical and conceptual clarity of ancient Greek

THE NEW ACROPOLIS MUSEUM

of exhibition space
Client: Organisation for the
Construction of the New
Acropolis Museum
Costs: E130m (£114.4m, \$189.1m)
Opened: June 2009
architecture. "The form of the building arose

architecture. "The form of the building arose as a response to the challenges of creating a structure that was worthy of housing the most dramatic sculptures of Greek antiquity, and doing so in an overwhelmingly historic and monumental setting," says Tschumi.



The Museum of the Arts of the 21st century is the joint home of the MAXXI Arts and MAXXI Architecture and Italy's first national museum solely dedicated to contemporary arts.

Zaha Hadid won the bid in 1998 to design the publicly-funded museum on the site of a former army barracks and incorporated some of the existing buildings into the design. Hadid decided to challenge the white neutrality of many 20th century museums and create a design which: "is more like an urban graft, a second skin to the site," she says. The glass-roofed, concrete structure incorporates octagonal, parallel and diagonal geometries to give a fluid feeling to the look of the museum

MAXXI - MUSEUM OF THE ARTS OF THE 21ST CENTURY

Designer: Zaha Hadid Architects, UK Client: Italian Ministry of Culture, Rome Location: Rome, Italy Size: 30,000sq m (323,000sq ft) Opening: Spring 2010

through long, winding walls. Hadid says: "The curving walls I designed are not only on the interior to be exhibited on, but on the exterior too. So you can have murals, projections and installations – it's all about an interior-exterior existence."



THE MARITIME EXPERIENCE

Designer: MET Studio
Client: Netherlands Maritime Museum
Location: Amsterdam, The Netherlands
Size: 450sq m (4,800sq ft)
Opening: Spring 2010
Costs: £1m (\$1.65m, €1.1m)

© "Our approach was not to put the central objects on any kind of pedestal, but to concentrate instead on creating a single immersive experience in each room, with the object fully integrated into a naturally-flowing storyline," says project lead designer Peter Karn about the aim of MET Studio's design. Working with Dutch contractor Hyposo and content specialists Tinker Imagineers, The Maritime Experience is part of a large-scale renovation of the museum.

The brief for the project was to transform four rooms into a series of immersive galleries, built around 'emotion-filled stories from naval history'. Karn created 3D concepts to bring the stories to life. These include Gerda Kuhn's blanket – the blanket wrapped around an eight-year-old girl when she was rescued from the liner Tubantia after it had been torpedoed by a German submarine in 1916.



POWERBALL HALL

Designer: Jack Rouse Associates (JRA), US Client: San Antonio Children's Museum Location: San Antonio, US Size: 10,000sq ft (929sq m) Opened: May 2009

☼ JRA's colourful, interactive ball gallery aims to promote cooperative play while conveying the basic principles of physics.

Themed loosely to represent a factory environment, the exhibit enables children to move balls through launchers, interactive walls, a mini-rollercoaster, conveyor

belts, pneumatic tubes and a Bernoulli blower. JRA did the conceptual and schematic design for the project while Boss Display provided the flabrication and installation. "Given that PowerBall Hall is the first exhibit you see when you walk into the museum, we really wanted to create something that was colourful, iconic and full of energy," says Mike Meyer, JRA's design director for the project. "The design takes advantage of the vertical nature of the entry lobby area, and creates an exciting view into the museum from the street."

He adds: "Specific activities were inspired by basic physics principles, as we looked to convey these concepts in a hands-on and interactive manner. We created activities that require cooperation among guests and encourage group participation." •

REALITY SHOW

hether it's adding a fresh angle to an established attraction or setting the tone for a new one, multimedia is a vital way of uniting audiences and telling a story.

Despite owning London's top paid for attraction, Merlin Entertainments has recognised that during a recession everyone is price conscious and looking for added value. The company has provided just that in its new 4D, £5m (U\$\$8.2m, €5.7m) film, launched at the Merlin Entertainment London Eye in August.

Produced by Centre Screen Productions, Principal Large Format was in charge of the stere of 3D and Simeskwerks supplied the 3D and 4D equipment and programming. The film tells the story of a four-year-old girl visiting London with her dad, but missing out on all the best sights, until a friendly seagull sweeps her away for a spectacular bird's eve view.

"The film needed to be told quickly and be non-dialogue dependent since many visitors are from overseas," says scriptwriter and film director, Julian Napier. "It also needed to be an experience which Talking wasps, flights over London and getting bombed are among the exciting experiences using the latest applications for multimedia and audiovisual technology. Kath Hudson learns how they bring the subject to life



Visitors learn how it feels to be bombed at The War Museum Liberty Park

would appeal to all ages, so couldn't be adrenaline-pumping. It does, however, boast more 4D sensory effects than any other UK attraction, with visitors feeling the wind in their hair, snow falling at their feet and even a sense of smell."

BRINGING SCIENCE TO LIFE

Last month, The Natural History Museum opened the doors to the £78m (\$128.1m, €88.3m) Davini Centre, its most significant expansion since it moved to South Kensington in 1881. This eight-storey concrete Coccon, suspended within a glass outer box, is a pioneering research facility which will be used by the world's leading scientists and bring visitors closer to the burning issues affecting the planet.

Sysco was the audio consultant, coordinating four different software producers. The centrepiece of the attraction is a 32-screen interactive wall, which illustrates what's happening to the planet in terms of the melting of the polar ice caps and deforestation. Sensors in the wall calculate how many people are standing in front of the screen and the wall responds accordingly.



The London Eye's 4D film gives visitors a bird's eye view of London complete with weather effects including the wind and snow











(Top left) The climate change wall at the Darwin Centre allows visitors to interact; (above) the centre's eightstorey concrete Cocoon suspended within a glass box; (left) The Imperial War Museum uses a multimedia tour to show how war shapes lives

mimicking what's happening in the world, so the more people, the quicker the deterioration of the planet.

The museum's project director, Paul Bowers, says interactivity and the use of the latest media, was of utmost importance when planning the Darwin Centre. "We knew from the beginning of the project that we wanted to have a rich variety of media in the space and a variety of ways for visitors to interact, to allow people to personalise their experience and link back to us via the website afterwards," he says. "Many of the science stories we're telling are complicated and we wanted them to be interesting and accurate, with real scientists speaking with the public, so there's lots of video and audio, whether that be linear film, or interactives including film. We know from our evaluation that people historically perceive science as being dusty and dry, so we wanted to highlight what's modern and interesting and reach the audience with the media they're used to."

WAR DRAMAS

Multimedia has been used to powerful effect in a new installation by Hypsos at the War Museum Liberty Park in the Netherlands, which gives visitors an idea of how it feels to bomb and be bombed. The walkthrough experience shows both sides of the event: the victims seeking shelter in desperation and the pilot, who is also human and potentially a victim.

The experience, which had to be designed and built in eight weeks, takes visitors on a flight over the city, through a devastated cityscape and then the horror of bunkers. Projections are used on the floor to simulate the feeling of flying over a city. When the action switches to the ground, with the city waking up to the chaos, four NEC projectors, theatrical lighting and a powerful speaker system are used to create the drama.

Hypsos's project director, Maarten Taborsky, says this is a universal story, but the challenge was to not be too literal: "Using abstraction, combined with impressive dramatic settings, allows people to imagine better than with any other means how it was to be the pilot or citizen in a bombing environment."

London's Imperial War Museum (IWM) also brings visitors closer to the realities of war with a multimedia tour implemented by Antenna Audio. The IWM wanted to update its tour and incorporate the message that "war shapes lives".

The resulting guide tells 20th century history in an engaging and personal way, with interviews from historians, soldiers and those affected by war, as well as archive film footage, contextual images and interactive games. Antenna Audio's marketing manager, Stefanie Fuchs, says: "This rich mixture of audiovisual content creates a very engaging experience for the visitor, helping them to better understand the role and messages of the IWM, as well as making lasting connections with the exhibits on display and the lives of those touched by war and olobal conflict."

SMART THINKING

Following a pilot at London's Tate Modern, Antenna Audio will be making its SMART guide a permanent installation. The guide will give 13- to 18-year-old students access to information and allows them to make audio ci

Visitors to London's Royal Institution are having the experience brought to life with the help of an interactive multimedia PDA guide introduced in August. Centre Screen was commissioned to create a





series of stylised, animated mini-films to bring the Royal Institution's people, objects and experiments to life. More than 40 light-hearted, eGuide programmes were developed, conveying the scientific detail in an interesting way.

A BUG'S LIFE

The BugWorld Experience (see P30), a £3.8m (\$6.2m, €4.3m) visitor attraction, in which opened at Liverpool's Albert Dock in August, uses a five minute film to introduce visitors to the experience and improve the PR of bugs. Set within a wasy's nest, visitors watch Centre Screen's show, which is told by a wasp and gives an amusing take on life from a bug's point of view.

The client brief was to provide an engaging, intelligent, surprising and entertaining six minute immersive experience, giving bugs some rare good PR, and backing up the attraction's message that without bugs the human world would grind to a halt.

"To give visitors a bug's eye view, images

The role of bugs is explained in a 120 degree panoramic sequence film at The BugWorld Experience. Seen from a wasp's perspective, sights include beetles eating and midges

were digitally separated, duplicated and manipulated to create a myriad of dramatic scenes," says Dave Postlethwaite, director of Centre Screen. "Highly sophisticated post-production techniques transformed television format footage onto a wide-screen, 120 degree panoramic sequence,"

US theme park company Six Flags has just introduced a number of large multimedia displays to entertain visitors queueing for rides. TV programmes about Six Flags are broadcast using characters and stories and promoting new attractions. According to Silvia Zordan, marketing co-ordinator for Global Display Solutions, which provided the displays, the next move for these interactives is to stimulate actions from

customers, provide interactive games and also use them as a way of finding out more about visitor behaviour.

WHAT NEXT?

With multimedia guides, there's definitely a move away from thinking of them as guidebooks or catalogues towards employing them as a way of helping visitors find an emotional connection with the site, which means an increasing use of effects, music, documentary and dramatic techniques. The technology is heading towards providing ways of developing immersive experiences and allowing visitors a more personal experience and to continue that connection online when they're at home.

Green issues will stay high on the agenda, with manufacturers looking to decrease energy consumption of their products and, as money continues to be an all important issue, the applications of multimedia and audiovisual will need to be increasinoly inventive and entertainino.

The recession has prompted the production of some smaller and more affordable versions of products, which can bring the wow factor into attractions at a lower cost

ELEMENT LABS

COBRA 16 is one of the industry's first truly environmentally friendly LED display, according to its German designers, Element Labs. It boasts a fraction of the power consumption and heat generation of other LED displays and has a 100.000-hour lifetime. Macau's new-

est casino resort, the City of Dreams, has used the technology in its 45m (148ft)-high double-sided screen.

FOGSCREEN

Finnish company FogScreen unveiled a compact version of its projection screen in August. The FogScreen eZ has been designed to appeal to the price-conscious market during the recession and, like its predecessors, can create a "walk-through" projection screen using water and digital technology. With this model, FogScreen is hoping to appeal to smaller visitor attractions and aquariums.



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POOLING RESOURCES

aterparks provide a great social experience, encouraging interaction with friends and family, and many of this season's new rides build on this social aspect, with multi-lane configura-

tions. As nothing delights three-year-olds more than the chance to give their parents a good soaking, attractions targeting young children are putting much more focus on interactive toys.

Domestic tourism is on the rise in the US again, which is good news for waterparks while the Asian market, particularly China, is buoyant at the moment. US theme park designer. Forrec, is involved in a number of projects in the region, including two set to open next year; one in Naniing, the other at The Beijing Watercube, which hosted the swimming competitions of the 2008 Olympic Games.

"The architectural significance of the Beijing Watercube, as well as the unique form of the structure required a world class design solution and out of the box thinking," says Forrec's vice president, Anthony Van Dam. "It's a dynamic space and every detail has been considered from theatrical lighting and glass mosaic tiles to custom

Interaction and family fun are the focus for waterparks with toys and multi-rider slides taking prominence at many parks. Kath Hudson looks at this season's waterparks and rides

> props and first ever attractions," Details of the rides are still under wraps, but they're being provided by WhiteWater West, Empex Watertoys and Proslide.

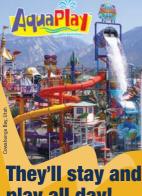
Spanning 20 hectares, the Nanjing waterpark will be one of the largest in China, and has a distinctly Chinese architectural style. blended with western attractions. It combines indoor and outdoor waterparks and a 1.000-bed hotel, with the aim of establishing this as an all year round attraction.

FAMILY FUN

Arizona saw the launch of a new waterpark this June. Wet 'n' Wild Phoenix spans 35 acres at the Adobe Dam Regional Park and has a number of WhiteWater West's signature attractions, including North America's first Family Boomerango.

Winner of the 2008 IAAPA Best Product Award, this six-person ride fires riders vertically up a wall, before falling back, passing over a transition hump and into a splashdown pool below.





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The 35-acre Wet 'n' Wild Phoenix includes the Family Boomerango,



AS NOTHING DELIGHTS THREE-YEAR-OLDS MORE THAN THE CHANCE TO GIVE THEIR PARENTS A GOOD SOAKING, ATTRACTIONS TARGETING YOUNG CHILDREN ARE PUTTING MUCH MORE FOCUS ON INTERACTIVE TOYS

There are also two-seater duelling Master Blaster uphill water coasters, featuring parallel slide paths that are the full length of the ride, with gravity-defying drops and curves. The eight-lane Whizzard sends riders through enclosed serpentine AquaTubes, before they race side by side in a multi-lane conflicuration.

Philadelphia waterpark Sesame Place launched its largest new attraction in the park's 29-year history in May. The Count's Splash Castle, designed and created by SCS Interactive, is a multi-level interactive waterplay attraction. Aimed at two-to seven-year-olds, it has more than 90 play elements aimed at stimulating the imagination and providing hands-on entertainment for families. Features include an 8ft (2.4m) tipping bucket, waterslides, water curtains, bridges, bubbler jets and hydro blasters.

The director of communications at Sesame Place, Paula Pritchard, says it has proved a big hit this season: "The Count's Splash Castle was a highly anticipated addition to Sesame Place and the response from guests has been tremendous. We recognise the appeal and success of water attractions in our park, and with the bulk of our attendance occurring in the summer, guests naturally gravitate towards our water attractions."

Interactivity is also the key at the refurbished indoor waterpark at the Jyozankei Hotel in Sapporo, Japan. The park, which was under-utilised, has been revamped to target young families. Previously the pool was too deep, with no attractions for young children. Now the depth has been reduced, the lighting improved and a number of interactive features from Empex



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The Jyozankei waterpark in Japan (right), newly revamped for younger users, and (inset) Legoland, California



Watertoys have been added, including, among others, the Baby Bungee, Watertotter and Aquadunker, which all appeal to a young audience.

THRILLS AND SPILLS

Legoland California has had a great response to the latest anchor water ride in its Land of Adventure area this season. Prime Play was given the task of devising a highly-themed ride, which could accommodate 500 riders per hour and provide an up-to-date take on traditional slides. The result was an enormous platform where riders line up six at a time to go down the lanes, either on magic carpet-themed mats or double-helts conviscrems.

"The challenge with this type of slide is to make a thrilling attraction for the rider, while keeping it a safe and controlled experience. We accomplished this by creating a brand new set of moulds which would safely guide the riders down the slide, while maintaining their lane and have them come to a safe stop by the end of the ride," says Nathan Jones, director of sales for Prime Play.

Dollywood's Splash Country, the Smoky Mountains-based waterpark owned by country singer Dolly Parton, has already unveiled details of the new attraction for next season, to add to its mix of some 30 waterslides. The Slick Rock Racer, from Proslide, is a multi-lane mat slide, inspired by Parton's childhood games in mountain creeks: "My brothers and sisters and I used to play in the creeks around home in the Smoky Mountains and more times than not we'd land on a mossy covered rock that sent us for a ride like you wouldn't believe. That's the same kind of unexpected thrill and adventure that I had in mind when I chose Slick Rock Racer for families to enjoy together."



VIRGINIA GRAEME BAKER ACT

The Virginia Graeme Baker Pool and Spa Safety Act came into force in the US last December, in a bid to reduce the number of drownings and accidents in swimming pools and spas. Of injury-related deaths, drowning is the second leading cause of death in children aged one- to 14-years-old in the US, accounting for 300 deaths and thousands of hospital visits, often resulting in permanent injury.

As well as reducing the number of accidents, the law intends to encourage the use of more layers of protection in pools and educate the public on the importance of adult supervision around water.

All public pools and spas in the US must now have drain covers which are accredited by the American National Standards Institute and the American Society of Mechanical Engineers. When there is a single main drain, other than an unblockable main drain, a second anti-entrapment system must also be installed at the site.

Spanning 300ft (91 m), the ride features four water-drenched lanes side by side. Riders lie on mats and travel down a channel, which includes an initial dip to build speed. Multiple bumps along the slide allow riders to gain additional momentum. The attraction can accommodate around 600 guests an hour.

Another interactive family ride was opened at Conny-Land in Switzerland this June. Designed by ABC engineering, Voodoo Island is a round boat ride that allows passengers to interact with people in other boats and even onlookers as they move along a 200m (656ft) channel. Boats are equipped with water cannon for each rider, who are seated looking outwards, and there are also water cannon along the ride for onlookers to use.

INDOOR SURFING

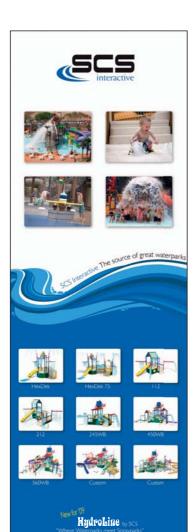
Urban surfing is a trend which is gathering momentum. Wave Loch's surfing experience, FlowRider, is so compact it can be accommodated in a space as small as a municipal pool or deck on a cruise ship.

CEO of Wave Loch, Tom Lochtefeld, came up with the idea while surfing of the

coast of California in 1988 and decided he wanted to find a solution for inland surfing. Having installed more than 100 FlowRiders across the globe, the company is now also rolling out the Wave House concept, a complete venue delivering all the elements of the Californian lifestyle under one roof – surfing, retail, live music, entertainment, and food and beverage. The most recent installation was at Sun City Mall in Singapore in October and Europe's first Wave House, the fifth in total, has just been confirmed for the Puerto Venecia shopping and leisure centre in northern Spain.

There seems to be no shortage of innovation in the waterpark sector, from the ride manufacturers through to the park designers, and they all look set to continue to push the boundaries further. As Van Dam says: "Many operators are realising that a good waterpark is as much about good design and operational planning as it is about great attractions. Gone are the days of poorly planned and sterile environments. What all guests want is for their waterpark to have a great ride mix, good shows and entertainment and a clean, safe and comfortable environment."

On the property of the prope







PIONEERING PORTRAYALS

Shakespeare and Darwin are given new leases of life and Chinese American stereotypes are challenged in three very different examples of exhibition design, Andrea Jezovit reports





sarner Michael Bennett creative director

What was your brief?

The Shakespeare Birthplace Trust wanted an introduction for visitors prior to entering the cottage where Shakespeare was born. Our brief was to redesign the static exhibition and bring the history of Shakespeare to life. We won the tender based on our concept of creating a 'show experience' rather than an exhibition.

Prior to our redesign, the site encountered problems with visitor flow. The large number of people going through the visitor centre caused a bottleneck at the cottage, which can only accommodate small groups. We've now designed the visitor centre in such a way that it controls the flow of people in timed zones and therefore limits the group sizes that move on through to a tour of the cottage.

What was your inspiration?

Our inspiration was theatre – we wanted to create a feeling of drama rather than just display objects in a museum. We've used artefacts as part of the show and they then become the performers.

THE PROJECT:

Shakespeare's Birthplace visitor centre, Stratford-upon-Avon, UK

Located in an unassuming red brick building in the centre of Stratford-upon-Avon, the Shakespeare's Birthplace visitor centre held a static exhibition showcasing artefacts and cased literature before Sarner's redesign. Now it's home to Life, Love and Legacy: A New Introduction to William Shakespeare. This new exhibition brings the bard to life through the latest technology. The

How did you combine the latest technology with Shakespeare's era?

The sets and scenery are designed to depict Shakespeare's journey from being a boy in quaint Tudor Stratford to life as an adult in 16th Century London. Visitors are transported from one setting to the other through automated doors.

I always think the best technology is hidden and we've created a show here that involves the visitor in the story, so they're not aware of the technology around them. This makes the attraction timeless and the visitor gets immersed in the subject and their surroundings, not distracted by the workings behind it. design sees controlled groups of visitors guided through five zones using carefully timed audiovisual presentations, lighting and automatic doors. Each zone features its own theming and educational show production, where artefacts are revealed as part of the sequence. Highlights include a recreation of the forest of Arden in Tudor Stratford, a 3D panoramic silhoueth set depicting the view across the River Thames, and a life-size set of Shakespeare's study.

Opened: April 2009

What was the biggest challenge?

Creating such a powerful result on a limited budget. The Trust is an independent charity that cares for Shakespeare's heritagend the project was partly funded by Advantage West Midlands.

What's your favourite part?

Zone 3, The Legacy. This is a wide screen celebration of Shakespeare's works with the reveal of The First Folio - the prized artefact in the Shakespeare Birthplace Trust collection. Also, the opportunity to work with two of the country's most wonderful actors, Patrick Stewart and Juliet Stephenson, who narrated the show.







designmap Daniel Sutton director

How did you work with the client?

Due to the complex and, to some extent, controversial nature of the subject there was, necessarily, a large project team.

The client side included interpretation specialists, historians, conservators and building inspectors as well as numerous external consultants advising on the scientific, historic and biographic elements of the exhibition. Despite this, the brief was fairly open, with the client lead, Jenny Cousins, encouraging us to think creatively around the issues. Full team meetings were held on site each month during the 10 month contract where we presented updates on the design for comment and approval. At three key stages in the project, designs were presented to the English Heritage senior management team. The contract was design and build with fit-out undertaken by MDM Props. This enabled us to build a close-knit project team including client, designer and fit-out contractor.

What was your inspiration?

Darwin's working methodology. Darwin epitomises the Victorian scientist and the huge leaps in understanding made by

THE PROJECT: Uncovering Origin.

Down House, Kent, UK

Designmap created a £1m (US\$1.64m, €1.2m) exhibition for this site, the home of Charles Darwin, on behalf of English Heritage in honour of the 200th anniversary of Darwin's birth and the 150th anniversary of the publication of *On the origin of the species*.

scientists and others in this period, with extremely humble means at their disposal. We wanted to capture a sense of collecting, studying and classification in domestic circumstances. Books literally fly off the shelf in the legacy section, symbolising the dissemination of his ideas by other authors.

What was the biggest challenge? The interactive room. Part of the brief was

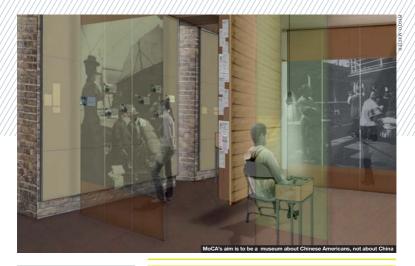
to create a series of 10 low-tech interactives to explain the key elements of the theory of evolution by natural selection. With the exception of three AVs, all interactives use technology that was available in Victorian England. Through consultation with the client and various science advisors, a number of mechanisms were developed by MDM to deliver the low-tech Entitled Uncovering Origin, the exhibition tells the story of Darwin and his work, family life and legacy through six rooms, which each explore a different theme. Structures with cases and pigeonholes containing display objects and graphics. One highlight is a full-size hologram recreation of the scientist's cabin on HMS Beagle during his epic five-year voyage.

Opened: February 2009

functionality which expressed a particular idea. The mechanisms were then built into the overall design framework for the room. An example is the use of mutascopes showing hand-cranked animations of the evolution of the blue whale.

What's your favourite part?

One of my favourite elements is the digital Pepper's Ghost we created in the reconstructed Beagle cabin. One of our concepts from the initial pitch, the effect was technically challenging and difficult to achieve within the budget. I also like the use of pigeonholes – a simple open display technique we utilised throughout. The pigeonholes were inspired by Darwin's work with pigeon breeding, but also connect well to the concept of classification.



matter practice Sandra Wheeler principal

What was the brief?

To design the core exhibition for the new location of the Museum of Chinese in America. As this core exhibition has expanded ten-fold from what was on display in the old location, MoCA spent the first two years of the project honing the message and focus of the exhibition.

How did you work with the client?

We were hired as a design team, not a content development team. However, we served as MoCA's test audience and editorial sounding board as they developed the narrative of the story. We visualised, recommended, edited and situated content and developed the finishes and lighting strategies. For the graphics, we collaborated with graphic design firm, mgmt. Design.

How does your design work with Maya Lin's overall design?

Maya had an initial architectural plan gesture for the museum, centring around a two-storey atrium created below an existing light-well in the building. Maya's inspiration for this was the traditional Chinese house plan with its interior courtyard. We expanded on this further, placing glazed

■ THE PROJECT:

With a Single Step: Stories in the Making of America, Museum of Chinese in America (MoCA), New York City, US

Matter has designed a new core exhibit that forms the heart of MoCA's new Maya Lin designed building. Entitled With a Single Step: Stories in the Making of America, the exhibition presents the different layers of the Chinese American

openings, or doorways, into this courtyard, which gives the galleries access to natural light. Media portraits of key Chinese Americans are projected onto full height glass in these openings. We likened these to the occupants of the house. We also determined the colour palette and several of the finishes in the permanent exhibition area and ceiling layouts.

What was your inspiration?

One of the challenges we faced was that even though the new galleries represented a considerable space expansion from what they had, the plan is a linear pasage around the central courtyard in the museum. Most of it's only 12ft (3.65m) or 9ft (2.75m) wide, so this dictated the range of layout strategies considerably. But it also gives the museum this intimate, domestic scale. We looked at the tradi-

experience with a historical overview of Chinese immigration, individual stories, and artefacts and images.

The content is presented through audiovisual pieces, text and exhibits, with the gallery spaces divided into a series of rooms presenting material in a rough chronology. The exhibition wraps around a sky-lit courtyard, which is the building's architectural centreoliece.

Opened: July 2009

tional Chinese house, domestic furnishings and cabinets as a starting point, but then allowed the design to be driven by the content. The references are consequently quite abstract and layered with contemporary significance. This is a museum about Chinese Americans, not China.

What was the biggest challenge?

With any identity museum, there's always the challenge of deciding which part of the story should be told. Many people assume the Chinese American story is relegated to what's easily discerned walking through tourist ready Chinatown, but this story is so much larger and more complex than that.

The Chinese American experience is anything but homogenous or singly-described, so the challenge was to edit and represent the diversity, yet maintain a consistent thread or story throughout.

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STAYING IN TOUCH

Augmented reality, mimicking motion and real-time reactions are among the latest technologies making interactive experiences more intense and enjoyable for guests.

Kathleen Whyman hears about some of the latest projects and what the future will be

By Kathleen Whyman



3DBA sees growth in interactive children's simulation attractions



ROGER HOUBEN
Managing director, 3DBA

I VIEW POINT 1

WHAT'S NEW?

We're seeing growth in media-based attractions which combine AV technology and interactivity. We're much more in tune with the consumer trends of interactive media via computer games. It's also possible to upgrade or change content easily with these systems.

WHAT'S NEXT?

In the future we'll incorporate other interactive components into our existing attractions. It's important that the experience is different from what people can do at home. We're currently working on concepts where visitors can interact with other parks and carry on playing at home, and we're also making 3D interactivity experiences.



The Lunar Landings isitors to the National Space Centre (NSC) **National Space** in Leicester, UK, can now climb to the top of the 42m (138ft) Rocket Tower and land the lunar module. Visitors can also have their photo taken on the surface of the moon, deliver their own alternative words to Neil Armstrong's famous 'that's one small step...' speech, relive the experience of watching that famous first step in a 1969 living room, share their memories and thoughts about the first lunar landing and get up close to a piece of the moon returned by the Apollo astronauts.

One of the most popular interactive elements of Project Apollo is the Lunar Lander Simulator. Visitors of all ages can enjoy this exhibit as it has a variety of skill levels, but as Malika Andress, head of marketing, notes: "It's the

children who select and achieve the highest difficulty landings!" The simulator shows visitors how Neil and Buzz would have approached the surface of the moon and allows them to experience the moment when the Eagle landed, something everybody has seen on their television screens.

NSC has responded to developments in technology, advanced findings in the field of space exploration and space science and the needs and desires of visitors. In the last eight years it has implemented six



Project Appollo is the latest new attraction at the National Space Centre in Leicester

360° full-dome shows, created a futuristic lunar training facility and added a 3D SIM experience. It has also partnered with the space industry to build a scientific test facility that's open to the public, developed an interactive media gallery telling today's news from space and added Project Apollo. Andress has exciting plans for the exhibi-

tion. "The moon landing was the culmination of the iconic period in history when America and Russia raced against each other to achieve all the firsts in space exploration," Andress says. "So the natural development will be to tell the tale of the Space Race."

xhibitions don't get much more hands on than At-Bristol's Animate it!, which invites visitors to create models out of clay and create their own animations and broadcast them via a website. The editing software is available on the museum's website so visitors can continue their animations at home. Developed in association with Aardman.

Animations, the creators of Wallace and Gromit, the exhibition includes props and artefacts on a three-year loan from Aardman, including a set from their latest animation. A Matter of Loaf and Death.

"We've worked with Aardman Animations on two previous animation exhibitions, the popularity of both with our visitors meant that we have been planning a more permanent animation presence for some years," says exhibition manager Erma Cook. "When our CEO Goéry Delacote got talking with Aardman Chairman Dave Sproxton, the only question became when to start!"

The exhibition is 250sq m (2,690sq ft) and aimed at families with children aged between seven and 14, followed by KS2 school groups. Space-based animations



Aardman Animations worked on the new attraction for the At-Bristol science centre

are popular, but Cook's favourite was when a visitor brought in their entire collection of Sylvanian Families and animated them.

The concept design for the exhibition was done by Razorbite while the exhibits were designed in-house. Dark Green Media were used for the software development. Techniquest cut some of the larger

pieces, Liz Bryan Graphics created the Animate It! logo and characters while Qube Design Associates put together the graphics and Polysigns printed them.

In the future, Cook plans to enhance the experience for visitors. "We want to give group leaders the ability to collect and review films created by their group." she says.

OLIVIER VINCENT

Communications manager, Alterface

[VIEW POINT]

WHAT'S NEW?

The latest developments allow visitors to have more interaction and real-time control. Group interaction has also evolved, allowing several people to play together at the same time, both with the system and with each other. This creates more fun for visitors.

The technology used is real-time software, which can communicate with any sensor or actuator (force feedback). This gathers masses of data in milliseconds and makes instant decisions as to what happens next, taking visitor information into account. But this technical performance is nothing unless it's combined with high-end media elements to provide a coherent environment which visitors are a part of.

WHAT'S NEXT?

There's more that can be done, from involving a greater number of players to creating increasingly complex interactions. However, we're limited by the need for visitors to be able to grasp the concept quickly. The advent of home consoles and devices such as the Will mote are educating people so It will soon be possible to go further.

Imagine letting visitors have more direct control of the force feedback mechanisms they experience. I can emisage turning the robotic arms of the Knight Experience at Legoland California into something interactive. Instead of the visitor just selecting a motion program, they could have a joystick and video-fight an opponent.



WHAT ARE YOUR LATEST PROJECTS?

We've built the first walk-through dark ride in Dubai with wireless technology. Instead of going through the ride in a cart, guests become the hero and enjoy the dark ride by running through the maze, while solving their mission. We've also added contents to our interactive theatres portfolio with Pirate's Plunder and Sea Safari (3D) and we're in charge of the interactivity for Reset Annozero, a dark ride in Mirabilandia in Italy.

Our latest project is an ambitious interactive haunted house (project 'theHouse'), which has opened in Branson, Missouri, US, as The Castle of Chaos. It's an interactive show combining the best of interactive theatres, dark rides, 4D cinemas and haunted houses. It's a 3D movie, a ride and a game in just one room. Gathered on a rotating platform, sitting on themed seats, the disoriented players quickly move from one screen to another. They're armed with a pistol and try to react to the many surprises that spring up.

n Egyptian temple, which is inhabited by alien presences is the setting for a new laser battle attractions at Italian amusement park Gardaland.

Using special weapons that shoot rays of light, visitors have to hit 184 targets scattered through 15 rooms to stop the aliens awakening inside the Temple of Abu Simbel.

Guests will face increasingly challenging settings as they make their way through the temple, including a giant cobra and a room of mechanic beetles, until they face Ramses himself.

Bruno Lancetti, Gardaland Group's marketing assistant and ride specialist, says: "The adventure aims to tie together history and the future of technology, playing up to the contrast between ancient civilisations and science fiction alien creatures. Undertaking the adventure of Ramses: The Reawakening will be a way to discover the most surprising mysteries."



Visitors to Ramses: The Reawakening will make their way through the Temple of Abu Simbel

Lagotronics and Alterface supplied the attraction, which uses devices with infrared sensors. "It's a true laser game for dark

rides where everything is automatically controlled, from lights to scores, animatronics to surrounding audio," says Lancetti.

"AS MULTI-MEDIA AND GRAPHICS BECOME MORE SOPHISTICATED, AND AS WE SEE GREATER AVAILABILITY AND LOWER COST IN CAMERAS AND OTHER HARDWARE, APPLICATION OR 3D AND 2D GESTURE-BASED INTERACTIVE EXPERIENCES WILL PROLIFERATE"



SALLY CORPORATION John Wood, CEO

VIEW POINT 1

WHAT'S NEW?

Rides now offer more interactivity, which creates more excitement and rider involvement. The primary change in our interactive dark rides and attractions is in the form of new themes, such as our Goosebumps Haunted Hotel (based on the world-famous children's books and DVDs) and our space adventure. Power Blast!.

This features alien pirates who shoot back at riders, causing the ride vehicles to spin, lights to flash and sound effects to trigger. We're also incorporating more special effects such as fog screen projections and fire effects in our rides. Of course, Disney created the all-video Toy Story Mania, which is exciting technology that utilises 3D video and interactive graphics programs.

WHAT'S THE APPEAL?

The appeal to visitors is always based on the amount of fun that they have. We have a special bonus target in our rides: one that looks the same as every other target, but is specially programmed to deliver several thousand extra points, so the real fan will work hard to find that bonus package. We can also program the ride cars to react in unexpected ways, creating elements of surprise. And some Sally rides have multiple endings, which vary depending on the cumulative score of each ride car.



WHAT'S NEXT?

The next step will be even more sophisticated interactive technology with 4D effects. We've just completed installation of our third North Pole Adventure dark ride for China's OCT group. This one's in their new Shanghai Happy Valley.

Ghost Blasters II, an effects-filled darker version of our original Ghost Blasters, opened recently at Elitch Gardens, and we're developing Power Blast!, which we'll introduce at this year's IAAPA show.



Moovid6D Theatre (24 Seats) | Mobile



HIGH-END ENTERTAINMENT SOLUTIONS

S GLOBAL REFERENCES

- Minimundus Bodensee, Meckenbeuren (GER)
- Tuze, Ankara (TUR)
- Winzer Krems, Krems (AUT)
- Thöni Aluminiumwelten, Telfs (AUT)
- Prime Cine Touring, Berlin (GER)
- Prime Cine Touring, Vienna (AUT)
- Ancol, Jakarta (INA)
- Parque Isla Magica, Sevilla (ESP)
- Bakken Park, Klampenborg (DEN)
- Bellewaerde Park, leper (BEL)
- Faarup Sommerland, Blokhus (DEN)

- Shipra World, Agra (IND)
- Gold Reef City, Johannesburg (RSA)
- Zoomarine, Albufeira (POR)
- Jawa Timur Park, Jawa Timur (INA)
- Bobbeiaanland, Kasterlee (BEL)
- Gardaland, Castelnuovo del Garda (ITA)
- Slagharen, Slagharen (NED)
- Jesperhus, Nykøbing Mors (DEN)
- Kamori Rusutsu, Hokkaido (JPN)
- Tibidabo, Barcelona (ESP)
- Lotte World, Seoul (KOR)

- Agat Asia, Almaty (KAZ)
- Misa, Kuala Lumpur (MAS)
- Happy Valley, Shenzhen (CHN)
- Bogor Nirwana Residence, Jakarta (INA) NP-Zentrum Kellerwald, Vöhl-Herzhausen (GER)
- AIDAbella (OCEANS)
- Corpus, Oegstgeest (NED)
- Galeria Bran, Bran (ROM)
- Gondwana Prähistorium, Schiffweiler (GER)
- AIDAluna (OCEANS)
- Costa Luminosa (OCEANS)













TOTAL IMMERSION Nicolas Bapst, head of product marketing

VIEW POINT 1

WHAT'S NEW

A mix of a classical 3D/4D theatre and a technology called augmented reality. Augmented reality is a live direct or indirect view of a physical real-world environment where the elements are merged by virtual computer-generated imagery. An actor is positioned in a tv studio next to the 3D theatre and performs and controls the special effects with a motion capture system and foot pedals.

WHAT'S NEXT?

For us, the future will be the mobility. Our developments are based on full mobile experience where the guest moves in a free-roaming environment using mobile devices (smart phones, portable video consoles or specific devices). Imagine a treasure hunt in a park or in a museum where thousands of visitors are playing together.

WHAT ARE YOUR LATEST PROJECTS?

Our Interactive 3D Live Show sweeps guests into a story using a real performer who manages the session and incredible real time effects in 3D. The performer has discussions with the audience and puts them inside the 3D show. Every show is different and can be adapted to suit the audience – children, classrooms, special events and edutainments. In our first location in South Korea, we present an interactive adventure in the city of the future. Guests interact with the MC and talk about the new innovation and technologies in this futuristic lifestyle.

isitors to Portsmouth Historic Dockyard can land a virtual F-35 aircraft and helicopter on to one of the Royal Navy aircraft carriers of the future in the attraction's new Carrier Strike exhibition.

Located on the ground floor of the Action Stations, Carrier Strike, is an interactive attraction. It's aim is to provide a memorable and informative experience of the largest capital ships to be put into service with the Royal Navy, and the technologies that make them possible.

There are more than 27 large-scale interactive exhibits in Action Stations. Visitors have the opportunity to escape from pirates in the simulator ride, race up the tallest indoor climbing tower in the UK and shoot down a gunship helicopter. They can also fly a replica Merlin helicopter, just like the one stationed on the navy's newest and most advanced warship HMS Daring, which is equipped with realistic controls and buttons.

As well as an interactive science and technology gallery, there's also a 25-minute film profiling the navy in action. "It packs the punch of a James Bond film, but is the



real world, not spy fiction," says events manager Melanie Alderson. "This is the navy facing real threats and dealing with them as they would on the high seas."

The exhibit was developed by engineers at BAE Systems Insyte in conjuncCarrier Strike brings to life a Royal Navy aircraft carrier of the future

tion with the Aircraft Carrier Alliance (ACA), with the venture strongly supported by the team at Action Stations.

INTERLINK LG LTD John Hudd, managing director

I VIEW POINT]

WHAT'S NEW?

Feedback we've received about our water-based attractions is for more interaction between guests. We've responded to this by developing a ride in which riders interact with each other and get extremely wet! The ride features boats which travel around a predetermined circuit. Each time the boat crosses another boat, riders can use water cannon to splash people in the other boat. They can also shoot targets. Spectators can join in the fun by firing from boats and cannon positioned around the circuit.

WHAT'S NEXT?

We're working on rides with higher-powered water cannon, which shoot targets, and we have just completed a Yogi Bear themed interactive water ride for Warner Brothers in Madrid, Spain.

GESTURETEK INC, US

Francis MacDougall, co-founder

[VIEW POINT]

WHAT'S NEW?

The latest development in interactive rides and attractions is 3D tracking and control. This is where the camera looks out from the screen, senses and locks on to someone's body, and tracks their movements in completed 3D space, regardless of how many other people are walking around in the environment.

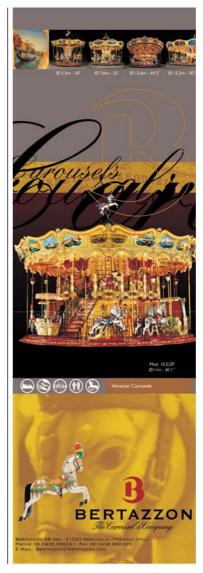
WHAT'S NEXT?

As multi-media and graphics become more sophisticated, and as we see greater availability and lower cost in cameras and other hardware, applications for 3D and 2D gesture-based interactive experiences will proliferate. Attractions, public spaces and even homes will be full of this type of engaging interactive display.

Gesture control technology is even making its way into electronic devices such as consoles, television sets and personal computers. Microsoft's Windows 7 release is capable of both touch and gesture controls, and is set up to allow us to deliver our gesture technology connected to a monitor. Multi-touch is also a huge growth area. Multi-touch interface technology is moving on to vertical surfaces, and that means greater opportunities for collaborative interactive gaming experiences in attractions.

WHAT ARE YOUR LATEST PROJECTS?

Our WallFX is an interactive game with special effects on a wall, which are controlled by hand and body gestures. When combined with our Screen/Iteme and 3D tracking offerings, the user can see their real-time video image onscreen. Their image will mimic their real-time wideo image onscreen. Their image will mimic their real-time movements and interact with computer-generated objects and characters in exciting adventure or sporting simulations. It's a Wil-like experience, except the user doesn't need to hold a remote and the user sees their actual image, not a character. 49



THE STORYTELLERS

In the second of a two part series, Andrea Jezovit speaks to the creative teams behind audioquides and get a behind the scenes look at recent projects



Bernadette Ross senior creative project manager Acoustiquide

Which attractions have you created guide content for?
We've created thousands of hours of audio tours for sites worldwide. In the UK we count the world heritage site of the Roman Baths,
Westminster Abbev and the British Museum among our clients.

How do you work with your clients and team to come up with content?

It's a collaborative and consultative process with our clients' curatorial and interpretation staff. We work with a wonderful team of productions associates, from scriptwriters to sound engineers, allowing us to cherry pick the team for each project and thereby ensure each tour is bespoke. An initial project launch meeting is followed by a scripting and consulting period.

A tour will usually go through three or four drafts before final approval. The client is consulted on choice of music and voice-over artists at this stage. It's also during this period that images are prepared and formatted in-house. In addition, archive film footage, which may also be used to advance the narrative, is supplied to us and formatted in-house. Our scriptwriters and producers combine the best elements of audio and visual to achieve a balanced and engaging tour tailored to the needs of the client and their site.



Westminster Abbey and The Roman Baths are among the UK heritage sites that Acoustiguide provides tours for

What kind of research do you do?

Research takes many forms, from interviews to archive research, both audio and visual, to seeking out primary resources. Discussing the content with our clients is very important, especially in understanding their visitor demographics and ensuring our content is tailored to suit their visitors.

How do you create content that's both fun and educational?

Fun and education are not mutually exclusive; it's how the interpretation and information are communicated that's key. This tenet runs from our work on children's tours, where we use interviews with children to create and advance ideas, to advising on the right kind of platform for a tour.

We recently delivered a series of video podcasts for BT which illustrate this point: theirs was a charming documentary piece on the history of felecommunications which we delivered in cutting-edge style, as podcasts. We strive to ensure the content is engaging and provoking and that the platform's a perfect match.

What do you look for in a voice actor?

We're very lucky to have a wonderful 'stable' of voiceover artists whose dulcet tones can cajole visitors into engaging with the objects on a tour or evoke time and space at a historic site. Key attributes are a facility with all kinds of scripts and texts and an ability to adapt.

Do you use any special storytelling techniques?

We offer narrative-led tours, documentary-style tours or a marriage of the two. The former are very much story-led and allow the client much more control of the narrative flow. The latter are more layered. Our scriptwriters produce a judiciously-layered script and it's the presentation and placing of information through scripted commentary or edited interview that's key.

Acoustiguide also offers children's tours (traditional audio and multimedia), visually impaired tours, basic English tours, British sign language tours and mobility impaired tours, all of which have the previously mentioned styles as baseline.

What's the most challenging part of the production process?

We like a challenge! Currently our marketing and multimedia coordinator's creative muscle is being challenged with producing a fully multimedia tour for children with some splendid learning games, while our scriptwriters tackle subjects as disparate as Le Corbusier



and Shah 'Abbas. Our project managers are also honing the dark science of project management with ever more complex tours.

What's the biggest trend in guide content?

There's much more of a focus on multimedia, not as a technological given, but as another way of communicating content. There's also much more of a demand for documentary-style tours. TV trends tend to trickle down. Broadcast tv audiences have become used to quick editing and more tightly scripted information; we need to respond to this. Visitor dwell time has decreased so we tailor our tours accordingly. This doesn't mean any compromise in content, but rather a renewed approach to the method and techniques of conveying that information.

How will content evolve over the next few years?

It will become much more intuitive – position and orientation is key to make sure your visitors' experiences are fluid. Multimedia elements should be apt and complement the objects/site. They should never be gratuitious. User-generated content is also an area of interest and debate, which deserves more initiatives.

What projects are you currently working on?

We're working on a multimedia children's tour for the Wallace Collection, which will be in addition to a three-hour adult and visually impaired tour. We're also working on two new temporary exhibitions for the Guggenheim, Bilbao, in addition to upgrading the permanent collection tour to our multimedia Opus units.

CENTRE SCREEN Royal Institution, London

entre Screen created a multimedia PDA interpretation guide to bring the heritage attraction to life for visitors as part of its £22m (US\$35m, £24m) refurbishment. Centre Screen's director and executive producer, Paul Kucharski, tells us about the project.

What was your brief?

To generate an interactive multimedia PDA interpretation guide [eGuide] for use in individual and group situations. The brief for the eQuide content was to create a series of animated mini films with character voiced audio, interactive games and demonstration films to bring the stories of the people, objects and experiments associated with London's Royal Institution (RI) to life. With a focus on the RI's collection of focal objects, we used flash programming to produce quirky Pythonesque animations telling the stories of, among others, Faraday's electromagnet, Tyndall's Tube and Davey's Safety lamp.

How did you come up with the content?

We became absorbed in the RI's scientific experiments and their related apparatus and worked closely with the curatorial staff, the exhibition designer (Event) and science experts to generate a series of initial scripts and storyboards. The scripts and a demo version of the eGuide were then checked within teaching circles and audience evaluation sessions to ensure the tone and content suited the target audience.

What kind of research did you do?

We drew on the knowledge and understanding of the curatorial staff to extract the base data we needed for the storylines. We then worked with an interactive science expert and biology teacher to 'translate' the content of the experiments into a language all could understand, while maintaining accuracy. This gave us the baseline to develop the final recorded scriots. The imagery was developed from different elements of archive photographs, illustrations and etchings.

How did you work with the narrator? We made sure the voices we recorded

were not those of a narrator in the traditional sense, but character voices. We thoroughly briefed, prepped and directed the various actors to inject personality into the recordings and treated the dialogue more like a series of radio plays than traditional narration.

What was the biggest challenge? To understand the intricacies of the scien-

tific detail involved so we could create a series of interpretations that relayed the often quite complex subject matter in an interesting and entertaining way without it being dumbed down. This was made possible by the client and the designer's appettle for the non-traditional content suggestions and their willingness to push the boundaries of storyelling and its delivery. •



Hialmar Olsson **Ord & Vision**

How do you work with your clients and team to come up with audioguide content?

It varies quite a lot! Some clients hand me a more or less workable script for our company to simply record and deliver. Other clients let me completely loose to see what I come up with in the exhibition or in the area of interest. This leaves me more space to add creativity to the audioguide, which often means a better tour.

A good way to start, that I try to apply as often as possible, is to stroll around

the museum or park with an expert. I bring a fresh view and start asking all kinds of questions - what's this, what's that? Often the expert gives me fascinating stories on how a painting or sculpture was created and brought in place. I try to focus on what we see as much as possible. By working this way, I know we keep the future listener involved and active.

What kinds of research do you do to create content?

I do some traditional research work, looking up dates and names. etc. but I'm also on the look out for little anecdotes, quotes, myths - anything that can flesh out the core facts. I also try and think in terms of sounds - what did it sound like in this apartment in the 1800s or in this great medieval hall? Finally I also try to 'feel' my way to the object. Simple piling of facts quickly gets boring. If I can convey more subjective emotions the guide benefits from it.

How do you create content that's both fun and educational?

I love doing children's tours in which I can work guite freely to add humour and often drama. One of the best children's guides I've produced runs at the Nordic Museum in Stockholm. The great Swedish King Gustav Vasa is one of the narrators. He has a very personal view on things and demands

great respect for himself and the objects, whereas the other narrator is a young woman of today who educates him on the objects and today's values. This works as both education and entertainment.

What do you look for in a narrator?

Personality and passion. I have occasionally picked a 'perfect' voice who has done thousands of commercials, but once we get into the story of an old castle or a painting it becomes evident that the person has

no interest in the subject. So I try to find narrators that know the field and are perhaps known to the general public as an 'expert'. This heightens the credibility and narrative quality.

Do you use any special storytelling techniques?

Rule number one is to talk about what we actually see. The tour needs to take the visitor elsewhere too, but if they're in front of a



fantastic surrealistic painting, keep the focus on the picture, not on, let's say, how the futuristic movement started way back when, Secondly, I use a Q&A approach where station one raises a question and the answer awaits us fur-

ther along the audiowalk. What's the most exciting audioquide

project you've worked on?

"RULF NUMBER

ONE IS TO TALK

ABOUT WHAT WE

SEE AS MUCH

AS POSSIBLE"

The Stockholm Murders, or Mord & Blod, project covering the many murders that have taken place in Stockholm has been very delightful to produce. For once there has been no client or commissioner but rather our own tour distributed via the webclient Guide to me, that works as a platform for this type of tour.

This walk required extensive research and very careful instructions to get the listener in exactly the right spot to understand how

What other audioguide projects are you working on?

One is for the county museum in Örebro covering how one of Napoleons marshals - Jean Baptiste Bernadotte - was elected king of Sweden in the early 1800s. Another is for an art museum in Stockholm about the Swedish 18th century painter, Carl Eldh. Hopefully these will go into production this summer.

At Ord & Vision.

is designed to

transport the

listener to the era

as describe what

they are seeing

and setting, as well

audioquide content

Which attractions have you created content for?

Stockholm; Nordic Museum, Stockholm;

Royal armoury, Stockholm; Talk of the Town, Stockholm city guide; Museum of Architecture, Stockholm; In the footsteps of Knight Arn, Western Sweden; 3000 years along the Göta Älv river, Gothenburg; Stockholm county museum outdoor phonequide: Steaebora Castle, Östergötland parish; Stockholm City Hall garden, Outdoor quide: Big Four wild life museum, Värmland Swede: Stockholm Murders (Mord & Blod), Stockholm,

Sweden's late prime minister Olof Palme was assassinated.

Museum of National antiquities,





fun-kit.net



Ref: tech expands ticketing services

Andy Povey has left attractions operator Merlin to head up ticketing specialist Ref:tech with the aim of bridging the gap between the needs of operators and the supply of ticketing systems and software.

The Ref:tech system stores data in more than one place, so if connections are lost, it can be easily restored using a synch tool to avoid loss of trading revenue. This also means live data can be seen anywhere at any time to support management decision-making.

fun-kit.net/museum-kit.net keyword



Gamma Dataware at The Beatles Story

The Beatles Story attraction, in Liverpool, UK, is using Gamma Dataware's system for admissions, ticketing, bookings, retail, stock control and purchase order processing.

The solution delivers information on a real-time basis for analytical, control and planning purposes.

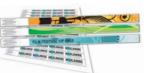
Also included in the installation is POS touch screen hardware from Epson, and souvenir ticket printers for the admissions points.

fun-kit.net/museum-kit.net keywords
Gamma Dataware

TICKETING SYSTEMS

Worldwide Ticketcraft uses RFID system

Radio Frequency Identification (RFID) systems from Worldwide Ticketcraft are enabling visitor attraction operators to understand visitation patterns in detail and to plan and anticipate how quests will use an attraction.



Digital bar code readers positioned around a theme park or attraction can identify individual wristbands as visitors walk past them – bar codes on the wristbands show which type of visitor is wearing the band – adult, child or youth – or alternatively, they can be linked to a database holding complete customer details to allow even more complex demographic analysis. The company says RFID your fun-kit.net/museum-kit.net keywords systems are more tamperproof too.

Stimare Ticketing brings innovation to printers

A new ticket printer from Stimare Ticketing claims to crack a number of problems encountered with currently available machines.

The machine has a 2MB memory, so logos can be loaded onto the printer rather than the server, speeding up printing and allowing more complex branding.

It can also handle tickets with RFID chips, so credit and ownership data can be held and the machine's moveable sensor means it can print on all ticket stocks.



fun-kit.net/museum-kit.net keywords
Stimare Ticketing



fun-kit.net/museum-kit.net keyword
Gateway Ticketing

Gateway systems for Atlantis Dubai

Gateway Ticketing has installed a RFID wristband system at the Atlantis waterpark and resort in Dubai.

Designed as a replacement for cash in the park, guests can purchase, charge and recharge a wristband at any Point of Sale station, using it to pay for lockers, food, beverages and souvenirs.

Galaxy also installed order entry, resource management, wireless admission control and turnstiles at the site, as well as a print at home ticketing system for customers.



Dad bought the tickets over the Internet. They used them for parking and admission to the theme park. They've played the right card: their season pass is a cashless means of payment for parking, admission and customer services. Now all they need is nice weather for a day of fun... Everything else is taken care of - by SKIDATA.

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fun-kit.net TICKETING SYSTEMS

Lo-Q and Six Flags extend arrangement

Lo-Q, supplier of virtual queuing systems to the theme park and attractions industry, has announced that Six Flags is to introduce its solution in two further theme parks within its portfolio of 20 attractions in the US, Mexico and Canada.

Six Flags brands the Lo-Q's system as the 'Flash Pass'. During 2008, more than a million people used the system, which provides guests with a hand held wireless

device – a Q-bot – which allows them to reserve their favourite ride from anywhere in the park. This enhances their stay by reducing queuing. Six Flags has been using Lo-Q since 2001 – ieight of its parks use the system.



Skidata and Ticket Online join forces

As part of a new agreement, tickets from the provider Ticket Online are now fully compatible with the SKI-DATA access management system.

For all stadia and arena operators already equipped with a SKIDATA system, there only needs to be a minor software change in the form of a simple SKIDATA interface update to facilitate holders of tickets issued by Ticket Online.

Ticket Online Software GmbH, which is headquartered in Hamburg, Germany, was founded in 1997.



fun-kit.net/museum-kit.net keyword skidata



fun-kit.net/museum-kit.net keyword vennersys

VenPoS Express solution introduced

Vennersys has introduced the VENPoS Express solution, which is designed to enable smaller attractions to enjoy the benefits of a single, purpose-designed ticketing and point of sale solution.

VENPoS Express takes many of the features of the VENPoS system and delivers them, pre-loaded on a touch-screen PoS system.

The package includes CHIP and PIN EFT software and on-site set-up and training as well as comprehensive software support.

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0 d D JOB

Restrictive costumes and outdoor swimming in winter mean being a mermaid isn't always plain sailing, but Marcy Terry tells Kathleen Whyman why she took to the job like a fish to water



The mermaids at

Springs State Park

have been performing

since 1947. Mermaids

nerform synchronised

through air hoses hid-

ballet moves underwater while breathing

Weeki Wachee

A FISHY TAIL

Marcy Terry, mermaid manager, Weeki Wachee Springs State Park, Florida

How did you become a mermaid?

I grew up in the area and have always wanted to work at Weeki Wachee. I'd pretend I was a mermaid when I was little and am a very strong swimmer and dancer. I auditioned as soon as I turned 18 in 1997 and have been here ever since.

What training is needed?

They train us here at Weeki Wachee. We get scuba certified and taught how to breathe on the air hoses. Then we learn the choreography, mermaid swimming and how to swish the tail. We're also taught how to go down to the air locks under the stage in case we can't find the air hoses and need air. After three- to sixmonths of training we can start performing.

What do mermaids wear?

We wear bikini tops and lycra tails with flippers in the bottom, which zip up at the side. Our legs are restricted in the tail so we learn to move gracefully and look relaxed when performing. It's not comfortable to wear, but you get used to it. We don't wear weights so have to control our buoyancy with how much air we hold and exhale. That's the hardest part.

How many shows do you do?

Three shows a day. At Halloween and Christmas we do four night shows as well. The park's been here since 1947 and is still very popular. In summer we perform to 500 people per show.

What does mermaid manager involve?

I oversee 20 mermaids plus four men who play the princes' roles in the shows. I do the payroll and scheduling, choreography and costuming for new shows and also train new staff. I don't get to do as

many of the shows as I used to, but I fill in for illnesses and holiday and love the choreography side.

Highs and lows of the job

There's no other job like it. We get to swim for the public and the little girls believe we're really mermaids. We're like small town celebrities here.

The low is that we get really cold as we perform in the water outside. The shows are 30 to 40 minutes long and the water's 74 degrees, so our body temperature drops. There's a heated tube room that we go into before the show then we enter the water through a tube that's filled from the spring. It goes down 16ft (5m) and out about 62 ft (19m) and has the air hoses in it, so we don't feel the outside temperature unless we get out of the water outside.

How do you breathe underwater?

We hold the air hoses and incorporate breathing from them into our routine. The new girls breathe more often as they're nervous, but experienced mermaids can hold their breath for two minutes.

How do people react when you tell them you're a mermaid?

If they're from the area they're familiar with it and don't think I'm crazy. If they're not, I have to explain to them the history of the park. It looks funny on a CV.

Life expectancy of a mermaid?

Once you're a mermaid you can carry on as long as you want to, as long as you're still able to perform. We have women in their sixties who used to work here and now perform as volunteer mermaids once a month in their own show. I'm planning on staving as long as I can, I'll retire as a mermaid!

den in the scenery. As well as watching the mermaid shows. visitors can take a river boat cruise and canoe or kavak on the Weeki Wachee River. The 538-acre park features a first magnitude spring and a 400-seat submerged theatre. In 1982, Bucaneer Bay opened to extend the park, with water

slides, flume rides and

a white, sandy beach.



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