

# Attractions management

VOL 18 Q1 2013

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# Attractions

## management

VOL 18 Q1 2013



### Brick Work

The digital guide that's bringing Nathan Sawaya's artwork to life

#### Sim Choo Kheng

Escape from technology at Malaysia's new sustainable theme park

#### Marine Life Park

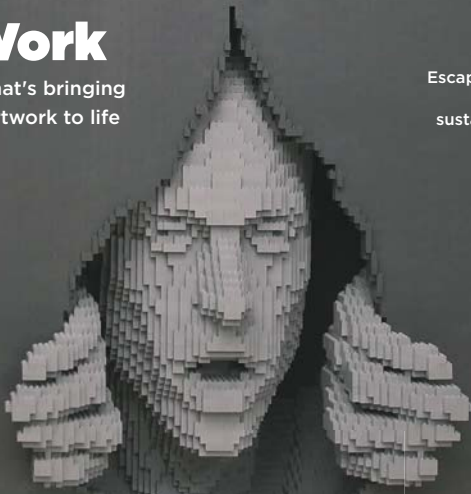
Resorts World Sentosa invites you to the world's largest oceanarium

**The View from The Shard**  
Europe's highest viewing gallery opens

**The New Children's Museum**  
Using contemporary art to engage and educate

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ON THE COVER: NATHAN SAWAYA WITH HIS SCULPTURE GRAY

PHOTO: NATHAN SAWAYA/BRICKARTIST.COM

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Nathan Sawaya, the Brick Artist, with Gray

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## ATTRactions MANAGEMENT

## EDITOR'S LETTER

## VISAS – NOT SEXY, BUT VITAL

Global growth in some parts of the attractions and tourism industry is being held back by confusing and antiquated visa regulations.

That's the view of a number of industry leaders – most recently Merlin Entertainments' CEO, Nick Varney, who's flagged up the UK's visa policies as "a joke", and is calling for reform.

Tourists are put off visiting some world destinations by visa palavers and cost. As a result, profits don't follow investment to the extent they could and the cross-marketing of attractions by operators with global portfolios doesn't have the impact it would in a more open market.

Even a small change could make a big difference given the volumes of tourists who hit the road each year. Global arrivals exceeded the billion mark for the first time in 2012 and the UN World Tourism Organisation (UNWTO) is forecasting growth of per cent a year on this number to 2030.

Nations which recognise the value of tourists to their economies and make it easy and cheap for people to visit are seeing the benefits, as are the visitor attractions which sit within their borders.



**"Of the 656 million tourists who visited G20 countries in 2011, 110 million needed a visa, but millions more were deterred from travelling by the cost and difficulty of obtaining one"**

Some regions, such as the EU, have streamlined their systems. The Schengen Agreement – signed in 1985 – created the Schengen Area, which operates like a single state for visa purposes and covers 26 European countries, including most EU members, plus Iceland and Norway. The UK and Ireland opted out of Schengen – one of the reasons for Varney's ire.

The G20 meeting in Mexico in 2012 historically recognised travel and tourism as a "vehicle for job creation, economic growth and development", with G20 leaders committing, for the first time, to support the industry.

Of the 656 million tourists who visited G20 countries in 2011, 110 million needed a visa, but millions more were found to have been deterred from travelling by the cost and difficulty of obtaining one.

Research by the World Travel and Tourism Council and the UNWTO showed the G20 could boost international tourist numbers by 122 million, generate an extra US\$206bn (£131bn, €154bn) and create five million extra jobs by 2015, simply by improving visa processes. With this item firmly on the agenda internationally, the industry needs to join the lobby with all possible haste. Varney is right to be bringing it to our attention.

Liz Terry, editor, twitter: @elizterry

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## BUYERS' GUIDE:

For suppliers of products and services in the worldwide attractions industry, turn to page 93



## Earning AZA accreditation

ALEATHA EZRA

Each year, the World Waterpark Association

hears from its members that a particular issue has started to

become of greater concern to them, and to the future success of their business. For the past few seasons, many of these hot topics have centered around the economy. However, in recent months, a new 'hot' topic has come under discussion, which involves global warming and climate change and the effect it might have on the water leisure industry.

Seasonal, outdoor waterpark operators have long been aware that shifting weather patterns affect their businesses on a daily basis. How could they not be



"To aid members with water consumption, WWA has worked with industry consultants"

when extended rainy periods can wipe out a large percentage of their 100-day operating season? What is new to this discussion is how guest perception of waterparks may be changing in areas where climate change has led to severe drought conditions and water conservation efforts.

Throughout the US and Europe, city administrators and community members are starting to ask waterpark operators to explain and justify their water consumption. This has become especially apparent when new projects are proposed in areas where water usage is heavily regulated.

To aid members in these conversations, the WWA worked with industry consultant Eric B Hansen with Hotel & Leisure Advisors to publish an article, *When the Waters Run Dry*, in the October-November issue of *World Waterpark Magazine*. The article looks at the difference in water use versus water consumption, water conservation as a design principle, best management practices and how to develop a drought response plan, among other topics.

Aleatha Ezra, director of member development

## Yas Waterworld launches

Yas Waterworld, marketed as Abu Dhabi's first waterpark, opened its doors on 20 January 2013, having previously expected to open by the end of last year.

Spread across 15 hectares (37 acres), the waterpark features a range of 43 rides, slides and attractions. Four of the park's rides are unique to the attraction. These include the Bandit Bomber – the first rollercoaster in the world to have on-board water and laser special effects – and a six-person HydroMagnetic Tunnel water-slide with a 238m (780ft)-long funnel run-in.

The attraction's theme is based on local Emirati legends and pearl diving heritage and centres around a story called The Lost Pearl.

Despite not having opened yet, the waterpark was the winner of last year's World Waterpark Association's Leading Edge Award.



Local legends and culture are the theme of Yas Waterworld

Yas Waterworld Abu Dhabi on Yas Island is developed by Aldar Properties and is operated by Farah Leisure Parks Management LLC.

Yas Island is a US\$3.6bn (£2.3bn, €2.7bn) mixed-use project by Abu Dhabi-based group Aldar. (See Q4 12 for an interview with the park's general manager Mike Oswald.)

## SeaWorld to open third Aquatica park

SeaWorld Parks & Entertainment is set to launch its third Aquatica waterpark in San Diego, USA in early 2013. The Orlando-based company has acquired Knott's Soak City in San Diego, a stand-alone Southern California waterpark, from Cedar Fair Entertainment Company.

Located in Chula Vista, the park is set to undergo extensive renovations to transform it into an Aquatica featuring a variety of water slides and rides, themed entertainment and exotic animals.

Jim Atchison, president of SeaWorld Parks & Entertainment, said: "These parks reflect the highest standard of quality in attractions, entertainment and theming, but the presence of animals makes the experience special."



The inclusion of animals adds an educational element to the waterparks

"Aquatica San Diego will feature guest experiences with a variety of exotic animals. Having animals in our Aquatica parks adds an educational component to a waterpark."

SeaWorld Parks & Entertainment owns 11 waterparks and aquariums across the US. Details: <http://lei.sr?a=FkRtE>

## Schlitterbahn Galveston Island looks to expand

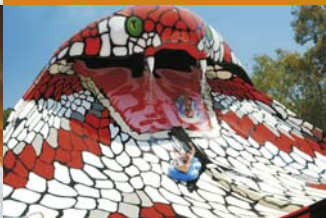
Waterpark operator Schlitterbahn – owner of the Galveston Island Waterpark in Texas, USA – is in talks with a fitness club adjacent to the park with the view to buying the site to extend the park with new rides, additional parking and office and storage space.

The owner of the 38-year-old Galveston Health and Racquet Club, Tom Cook, says that he has been looking for an exit strategy since Hurricane Ike, which drove many of his locals away from Galveston Island. Details: <http://lei.sr?a=FkRtE>



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# Theme Park News

## Parks 'biggest growth area' for Village Roadshow

Theme parks will be the biggest engine of growth over the next decade for Village Roadshow Limited, its chair has said.

Robert Kirby made the announcement at the company's AGM last month where he reported pre-tax earnings of AU\$154.7m (£100.3m, €123.7m, US\$161.3m) for the 2012 financial year, up on AU\$140.5m (£91.1m, €112.4m, US\$146.5m) for 2011.

"We see our theme parks as not only our largest business; it is the new foundation of our business," said Kirby. Details: <http://lei.sr?a=d7c4Q>



Merlin is expanding its portfolio of midway sites, which include Legoland Discovery Centres

## Merlin expands European midway portfolio

Merlin Entertainments is expanding its midway brands in Europe with the opening of a Madame Tussauds attraction in Prague, Czech Republic.

Due to launch in late 2013 or early 2014, the attraction is the latest project to be announced as part of Merlin Entertainments' strategy to open midway brands in major European cities.

It follows the launch of a Madame Tussauds attraction in Vienna, Austria, last year. Details: <http://lei.sr?a=e2TzH>

## Namco to open indoor theme park in Tokyo

Japanese game company Namco Bandai Group is set to open a new indoor theme park in Tokyo mid 2013.

The theme park will be built on the third floor of the Sunshine City World Import Mart building in Ikebukuro, Toshima Ward. Characters from the Manga publication Shonen Jump will feature at the park.

Shonen Jump is a weekly magazine published in Japan by Shueisha under the Jump line of magazines. Areas dedicated to themes from the publication will feature in the park including One Piece, Dragon Ball and Naruto. Details: <http://lei.sr?a=A5p8h>

## India plans 20 new tourist parks

The Indian government has announced plans worth Rs1,000 Crore (£113.9m, €140.3m, US\$183.6m) to develop 20 themed tourist parks across the country to mirror resort town developments in Cancun, Mexico and Sentosa, Singapore.

Tourism Minister Shri Sahai revealed the plans at the National Tourism Advisory Council meeting on 12 December.

His tourism development strategy, to be included in the government's five-year plan, outlines plans for skill development, infrastructure development, promotion and branding and taxation and incentives. He proposed the tourism parks, which would consist of hotels, convention centres, theme parks and skills training centres, would be developed through public private partnerships and would employ locally.



India's proposed tourist parks will have facilities for amusements

His strategy stipulated each park would be at least 50-acres and would include facilities for craft centres, entertainment and amusement, food streets, sports and hosting of cultural events. A consultant has been appointed to develop action plans for deciding park locations. Details: <http://lei.sr?a=vor3Z>

## Cartoon character Xiha Youji inspires theme park

The local government of Chongqing in China is planning to invest 3.5bn yuan (£435m, €425m, \$560m) in a theme park based on the home-grown cartoon, Xiha Youji. Cartoon producer, Hu Yigang, says the company has learned from

Disneyland's business model and the theme park will be filled with animated characters and scenery from the cartoon.

He has ambitions to build more theme parks in 10 provinces across the country.

## New high-tech theme park to enter China

A high-tech Fantawild Theme Park is set to launch its first phase in Xiamen, China early next year. The theme park represents phase one of the Huaqiang Science and Technology Industrial Park, which is owned by Shenzhen Huaqiang Holdings.

Located in Xiamen's northern Tong'an District, the theme park will include rollercoasters and rides, such as the flying space shuttle, Speed Windmills, Escaping Dinosaur Island and Harry Potter.

The park will also feature modern science and technology plus traditional Chinese culture, as well as Chinese-inspired rides, such as Uproar in Heaven and Nezha Conquers the Dragon King.

When complete, the 880,000 sq m (9.47 million sq ft) Huaqiang Science and Technology Industrial culture and technology industrial base will feature a culture and technology experience zone, two culture and technology theme parks and other supporting projects.



The attraction will be located within a science park

Almost 90 per cent of the first phase, which houses the Fantawild Theme Park, has been completed, and other supporting facilities will be unveiled in the coming weeks. Details: <http://lei.sr?a=B5D3f>



# Theme Park News

## Gandhi theme park planned

The Sewagram Ashram near Wardha Gandhi, where Mahatma Gandhi stayed for six years after the Dandi March, is set to be transformed into a tourist attraction featuring a theme park. The visitor attraction is being developed with an estimated cost of Rs 62 crore (£7.3m, €8.6m, US\$11.5m).

The Gandhi for Tomorrow educational theme park will partly be based on showing how Gandhi was in favour of appropriate and useful technology and not against it – as it is often claimed.

Along with the theme park, the new attraction will also house a Rs 95 crore (£11.2m, €13.2m, US\$17.7m) international convention centre. Minister of state for finance and district guardian minister Rajendra Mulak said the convention centre will include an auditorium and study centre for those keen to learn



The attraction will be built where Gandhi stayed after the Dandi March

Gandhian thoughts, along with accommodation. A section displaying Gandhian arts, culture and technology will also be developed. Wardha District Collector Nawin Sona said that a memorial will also feature, to celebrate 75 years of Gandhi's stay in the area. Details: <http://lei.sr?a=G7C1U>

## Theme park in the frame for Zimbabwe city

Plans for a theme park in the Zimbabwe city of Bulawayo have been mooted. The city fathers have given approval to lease more than three hectares of land to a private company, to develop an amusement park.

According to *News Day*, the park will be the first of its kind in the country and will be solar-powered. The city council has said the park will target families and should help rejuvenate the area. Details: <http://lei.sr?a=z5Vif>

## Mega hotel planned for Universal Orlando

Work is underway on the fourth on-site hotel at the Universal Studios Orlando resort in Florida, USA.

Scheduled to open in 2014, Cabana Beach Resort will be the largest of Universal's resort hotels with 1,800 rooms. The property, which will be built on a 37-acre and operated by Loews Hotels & Resorts, will offer 900 family suites and 900 standard rooms.

Jonathan Tisch, chair of Loews Hotels & Resorts said: "The Orlando resort market and our partners at Universal are a fundamental part of our business. Universal Orlando is a beloved family destination and this new development will allow more families to enjoy the attractions and experience the unique theme parks."



AS

Loews Hotels & Resorts also operates the Portofino Bay Hotel, Hard Rock Hotel and Royal Pacific Resort at Universal Orlando. Details: <http://lei.sr?a=v9k7N>

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## At the frontline of conservation

JENNIFER FIELDS

There are a total of 221 zoos and aquariums accredited by the Association of Zoos and Aquariums (AZA) across seven countries. Each of these help connect people to nature and collectively they welcome 175 million visitors per year. Being AZA accredited means that an attraction has a track record of being dedicated to educating people about the challenges many species face in the wild and is a global leader in field conservation.



One of these is Ocean Park in Hong Kong, which first opened in January 1977. Since its launch, it has developed itself into a world-class attraction, welcoming almost 7.5 million people a year, with wildlife conservation serving as a key platform for the organisation. For Ocean Park Conservation Foundation, Hong Kong (OPCFHK), 2013 began with this mission in mind – a major effort in seahorse conservation.

In order to further understand and protect seahorses, OPCFHK conducted the first systematic seahorse survey in Hong Kong, covering 31 sites in local waters from September 2011 to October 2012.

According to data reported 10 years ago, yellow seahorses were moderately abundant in Hong Kong waters, but the recent seahorse survey conducted by OPCFHK showed that only six seahorses were found in 31 diving sites in Hong Kong's eastern waters, including areas around Sai Kung and Tung Ping Chau.

Different factors impact seahorse survival, with 11 out of 54 species listed as Vulnerable or Endangered by the International Union for Conservation of Nature. They are typically threatened by over-exploitation for uses in traditional Chinese medicine and loss or degradation of natural habitats.

In 2013, the scope of this survey will be expanded to include more sites in Hong Kong. The OPCFHK will also embark on a seahorse tagging initiative – the first ever in Hong Kong. Over the years, OPCFHK has also handed out more than HK\$500,000 worth of funding to support seahorse-related conservation initiatives in Asia.

This is just one example of the work that AZA members continually conduct.

Jennifer Fields,  
communications coordinator, AZA

## £30m Chester Zoo plans approved

Visitors to Chester Zoo will soon be navigating their way through swamps, mangroves, bamboos and tropical forests, now that the zoo has received the green light from planners for its £30m (€35.6m, US\$47.5m) Islands project.

As featured in *Attractions Management* Q3 12, an unoccupied part of the estate will be transformed into replicas of the islands of the Philippines, Papua New Guinea, Bali, Sumatra, Sumba and Sulawesi and linked with a series of bridges and one journey on water.

Islands will be home to indigenous animals, including new species of crocodile, Sumatran tigers, Sulawesi macaques and Indonesian rhinoceros hornbills. The redevelopment will also create an Indonesian jungle house – which will be the largest indoor zoo exhibit in the UK and home to orangutans – as well as retail and catering units and will open by Easter 2015.



Now Islands has been approved, the zone should be open by Easter 2015

Director general of the zoo, Dr Mark Pilgrim, says the ambitious scheme will offer an unparalleled experience. "For many of our visitors, taking a trip to these islands just is a dream. But we'll be making those dreams a reality, transporting our visitors thousands of miles away," he says. Designed by German architects, Dan Pearlman, the project will feature the local architecture and vegetation.

Details: <http://lei.sr?a=ejzjd>

## Work starts on Columbus' African zone

Construction work has begun on the new Safari Africa zone at Columbus Zoo and Aquarium in Ohio, US.

The new area has been designed to 'transform' guests into world travelers on an journey that will see the adventure into the deepest wilderness of southern and eastern Africa.

Visitors will find a colourful and active village outside the gates of a national park and experience the sights and sounds of a vast savannah from raised platforms.

The Safari Africa zone is set to become the new home to a range of iconic African animals, including giraffes and zebras. The 43-acre



The new area will take guests on a journey to the wilderness of Africa

project is expected to cost around US\$30m (£19m, €23m) and is set to open in May 2014. Details: <http://lei.sr?a=g8I9y>

## Investors pump \$10m into Cairns aquarium project

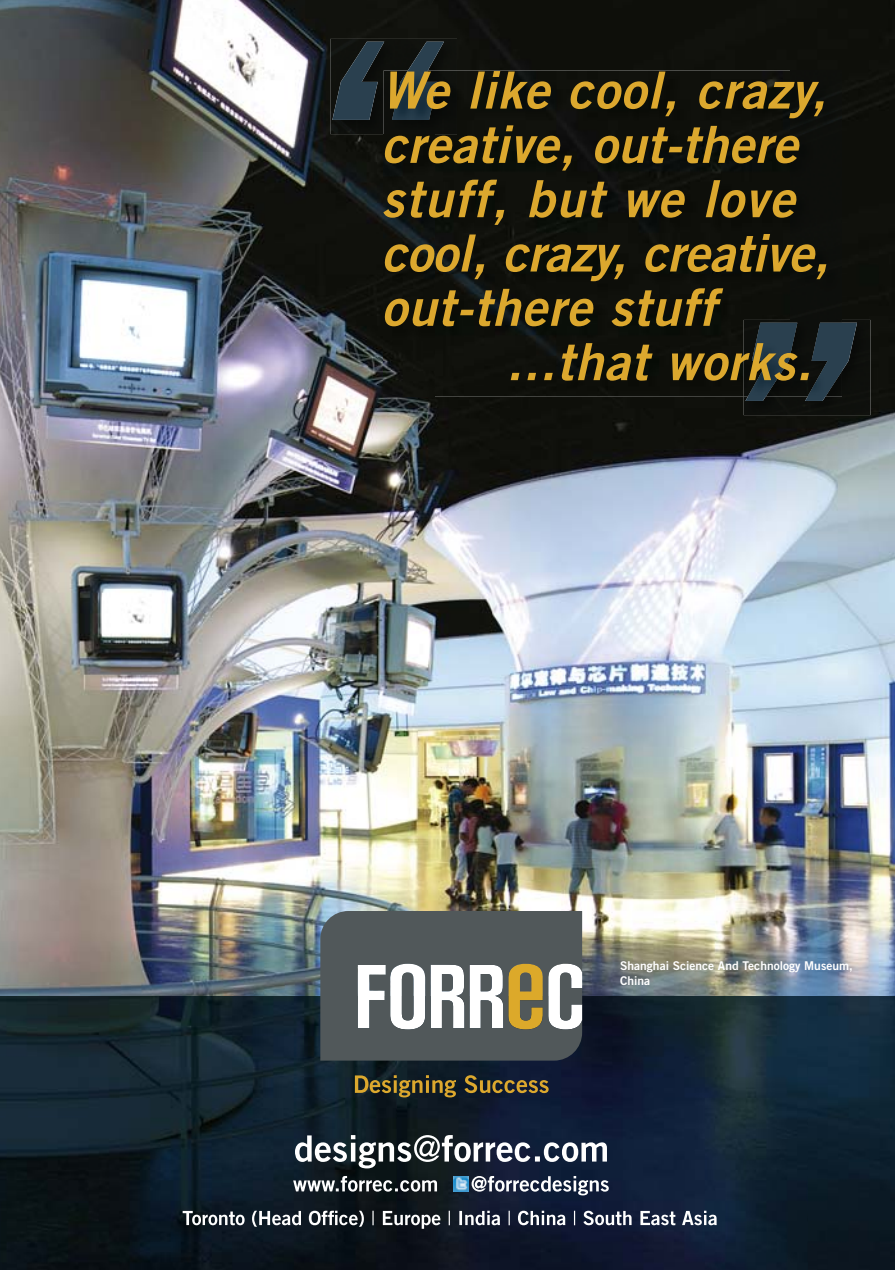
Plans for a AU\$33.5m (£22m, €26.5m, US\$35m) aquarium in the north Australian city of Cairns, renowned for its coral reef, have been given a cash injection of \$10m (£6.5m, €8m, \$10.5m) from private investors.

The Cairns Aquarium and Reef Research Centre project is being led by entrepreneurs, Daniel Leipnik and Andrew Preston, and is

widely supported by the public sector. Regional Development Australia, the Cairns Regional Council's investment attraction fund and the federal Tourism Investment Regional Fund have also been approached for cash.

The company hopes to start construction in 2015, with an opening date of late 2016. Details: <http://lei.sr?a=G3K5O>





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## Get ready to make and innovate

LUCY SCHWEINGRUBER

**T**inkering, fabbing, trial and error –

whatever you want to call it – the maker movement is spreading to science centres and museums across Europe. It's also a particularly theme-appropriate topic for the upcoming Ecsite Annual Conference, Dreams, the Spirit of Innovation, 6-8 June 2013 in Gothenburg, Sweden. Pre-Conference Workshops will take place on 4 and 5 June.

Here, we offer a snapshot of the maker movement-focused content at this year's conference, which will surely entice the creative creators among you:

- Making, fabbing, tinkering: The Fab Lab movement, initiated by MIT researcher Neil Gershenfeld in the late 90s is starting to have an impact on the way interactive exhibitions are conceived.

Laser-cutters and 3D printers in combination with open-source software are the symbols of a post-industrial way of production on demand. It's a seductive thought that today we can make almost anything if we just use the commonly available tools and the information circulating in the world (wide web).

- Pre-Conference Workshop: The maker movement is having an impact on museums, but hands-on, assembly-based, make-and-take activities may not be enough to support truly innovative thinking.

In what ways can we support the making aspect, which is inherent to best practices of teaching and learning in order to develop a tinkerer's disposition?

This session will get participants (maximum 25) actively involved as learners using tinkering activities for half the session, and then as designers and educators of such activities for the other half. Our belief is that the culmination of a variety of tinkering experiences over time gives learners the practice and ability to start asking their own questions, accept new challenges, and take action in new ways in order to better understand science, art, and the world around them.

This year's conference is hosted by Universeum Science Centre. Register at [www.ecsite.eu/annual\\_conference](http://www.ecsite.eu/annual_conference)

Lucy Schweingruber, fundraising and events manager, Ecsite



## \$100m Tennessee centre planned

A US\$100m (£62.5m, €76.6m) discovery park is currently under construction in Union City, Tennessee and expected to open mid-2013.

The 50-acre Discovery Park of America aims to provide knowledge for adults and children in the areas of science, technology, history, art and nature. The park will house a 100,000 sq ft (9,290sq m) Discovery Centre showcasing 10 exhibit galleries including exhibitions on energy, enlightenment, military, Native Americans and natural history.

The Robert E and Jenny D Kirkland Foundation is Discovery Park's principal benefactor. The foundation has donated US\$70m (£43.7m, €53.6m) to the creation of Discovery Park, as well as a program of US\$2m - \$3m (£1.5m - £1.8m, €1.5m - €2.3m) continuing support after opening.

Highlights of the centre include a 20,000-gallon aquarium showing the underwater life of Reelfoot Lake, a 60ft (18m) replica of the human body with a 30ft (9m) slide and a theatre simulation of the 1811-1812 New



Discovery Park of America will open in Tennessee in mid-2013

Madrid earthquakes. Dinosaurs, fossils, Native Americans, military equipment and vintage automobiles will also be on display.

Meanwhile, the park will house a water feature that bisects the site, flowing north to south, which includes waterfalls and bridges. Japanese, European and American gardens will surround the park allowing guests to learn about nature from around the world.

Other features include log cabins, a 100-year-old church, a train station and a replica of the Liberty Bell.

## Discovery Science Center to open in LA

Funding has been approved for the Discovery Science Center in Orange County to go ahead with development of a new education and science attraction in Los Angeles, USA.

Finance was approved by the Los Angeles City Council for the \$8,000sq ft (5,400sq m) facility, which will be spread over two storeys and provide hands-on exhibits focused on science, technology, engineering and mathematics.

It will take over the site currently occupied by the partially built Children's Museum LA, which was never completed due to its non-profit operator going bankrupt in 2009.

Discovery Science Center president Joe Adams said: "The need for a hands-on science and education facility in Los Angeles is strong and we're very excited to be a partner in bringing that dream to fruition."

Councillor Richard Alarcon said the facility would open within a few years.





The current Discovery Science Center attracts 500,000 visitors a year


"This will provide kids from throughout Southern California with an excellent resource to learn important lessons about conservation and our environment," he said.


The current Discovery Science Center in Santa Ana houses more than 100 interactive exhibits over 59,000sq ft (5,481sq m).


The centre attracts more than 500,000 visitors each year.

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## Britain's religious buildings are attracting the crowds

Britain's religious buildings are sought after attractions for international tourists with 6.7 million visiting churches or cathedrals in 2011. According to VisitBritain, religious buildings are not a deciding factor in themselves for tourists planning to travel to the UK, but they have an important impact on visitor experience.

Visiting a religious site is most popular among Brazilians (55 per cent) followed by Australians and Americans (49 per cent) and Russians and Chinese (45 per cent).

In total, 22 per cent of last year's 3m visitors went to a religious site. VisitBritain CEO Sandie Dawe said overseas visitors rate Britain fourth out of 50 nations for built heritage, with films like *Harry Potter* and *The Da Vinci Code* raising the prominence of its historic sites. Details: <http://lei.sr?a=4x2K9>



Exhibits include aircraft that helped the victory

## Freedom Pavilion opens at New Orleans Museum

The National WWII Museum in New Orleans, Louisiana, USA, has launched the latest phase of its US\$300m (£187m, €225m) expansion. The US Freedom Pavilion: The Boeing Centre, which cost US\$35m (£22m, €26m), tells the story of America's industrial capability during the war years and explores what it was like to participate in WWII on land, sea and in the air.

It showcases the macro artifacts of the war, representing America's production of airplanes, artillery, tanks and other equipment that helped the victory in World War II. Exhibited artifacts include a Boeing B-17 Flying Fortress, an SBD Dauntless, a B-25 fuselage and the TBM Avenger.

The expansive space features elevated visitor catwalks for a dramatic view of the aircraft as well as LED screens programmed with historical films. Designed by New York-based engineering firm and architectural firm Vooranger Architects, the pavilion was funded through a \$20m Congressional grant through the US Department of Defense as well as a \$15m donation from The Boeing Company. Details:

## Settlers museum reopens in NZ

A museum telling the social history of one of New Zealand's first cities has reopened in Dunedin following a four-year NZ\$37.5m (£19.64m, €24.21m, US\$31.69m) refurbishment.

Toitu Otago Settlers Museum opened to the public on 8 December after a two-year closure during its building phase.

The closure allowed the development of a transport garage, the refurbishment of heritage brick buildings and construction of a new entrance foyer, which houses a steam locomotive, a shop, café and function spaces.

A 3,000 sq m storage facility, which kicked off the refurbishment project in 2008, was completed in November 2009.

The museum includes exhibits charting the arrival of the indigenous Maori population, the growth of Dunedin city and future challenges for the region.

The renovation has allowed the museum to display many large objects that had previously been in storage, including a Tiger



The social history museum reopened a multi-million dollar revamp

Tea trolley bus, a Didham's delivery truck, a restored tram and a night soil cart.

Dunedin mayor David Cull said the museum would be an "evolving database of snapshots and historic vistas and of personal, family and cultural stories."

The museum, which offers visitors free admission, first opened its doors in 1908 and is publicly-owned by Dunedin City Council. Details: <http://lei.sr?a=Jot7B>

## National Afro-American Museum opens first phase

The first phase of the National Afro-American Museum in Wilberforce, Ohio, USA was unveiled to the public on 26th January, following an 18-month long revamp.

To be opened in stages, the museum's first phase includes a renovated exhibition space, which will feature the first new installation entitled *How I Got Over*.

The mixed media exhibition will reflect the African American experience and focus on three themes of celebration, spirituality and protest. A second exhibition space is expected to be open mid-2013 and will feature a quilt installation entitled *And Still We Rise*. It will consist of nearly 100 quilts by African American artist Carolyn Mazloomi.

Other works on the museum include updating all the exhibition spaces and mechanical systems in the museum. Executive director of the National Afro-American Museum,



The museum has reopened to the public following an 18-month revamp

Charles Wash, said: "The newly renovated public spaces will also make programming a more prominent feature than before."

"This will allow us to provide first-hand educational opportunities for the public that fully interpret the material culture of African Americans from around the country." Details: <http://lei.sr?a=D9A1l>

# Gallery News

## Chrysler gallery closes for revamp



The main gallery of the Chrysler Museum of Art in Virginia, USA, is set to remain closed until late 2014

The Chrysler Museum of Art in Virginia, USA, has closed its main gallery as it begins a US\$24m (£14.97m, €18.36m) expansion and renovation project.

A key component of the renovation, which is scheduled for completion in April 2014, is the replacement of outdated temperature control systems – vital for protecting and conserving the museum's collection. Two new wings, totalling 8,000 sq ft (743 sq m), will flank the museum's entrance, adding to its current space of 210,000 sq ft (19,510 sq m). Other facilities added during the refurbishment will include

wi-fi access in every gallery, improved disability access and an expanded café that will open beyond museum hours.

During construction, the museum's glass studio and Moses Myers House will remain open and the Norfolk History Museum will be converted into a new gallery dedicated to American art.

The museum's collection of more than 30,000 pieces of art will be safeguarded during the construction process, with many being displayed at other galleries in Virginia.

Details: <http://lei.sr?a=9T5K9>

## Ayyam Gallery to expand into London and Jeddah

Middle Eastern art institute Ayyam Gallery is set to launch two new galleries in London, UK and Jeddah, Saudi Arabia in early 2013.

The curatorial programme of both buildings will reflect that of Ayyam Gallery's existing locations in Damascus, Beirut and Dubai.

The gallery focuses on showcasing established and emerging Middle Eastern artists with the aim of expanding its reputation in the international art world. Ayyam London launched at New Bond Street on 24 January 2013. Details: <http://lei.sr?a=Y4X1>



Interactivity can improve guest engagement

## Social media's impact on art organisations surveyed

A survey of US art organisations reveals how technology such as social media, the internet and mobile connectivity positively and negatively impacts their operations.

The Pew Internet survey questioned 1,244 organisations that had received funding from the National Endowment for the Arts (NEA) between 2007 and 2011.

The survey found that most organisations agreed digital technologies had increased engagement, made art a more participatory experience and established more diverse audiences. Many noted social media provided cost-effective ways to market events and attractions and reach new patrons.

One respondent commented: "The internet makes it possible for our organisation to market ourselves more effectively through online advertising, blog presences, and social media exchanges. We've been able to decrease our budgets and increase revenue by utilising online resources effectively."

Concerns about technology's impact included audiences' reduced interest in real objects or performances over digital alternatives, and an expectation all digital content should be free. A number of organisations were concerned that there was a demise of trusted critics, due to pressure on media from the digital transition.

Details: <http://lei.sr?a=U8CX2X>

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# Museum News



The proposed whale museum will be in Picton

## Fundraising starts for New Zealand's whale museum

Artist prints have been released to raise funds for a proposed whale museum planned for Picton, New Zealand.

The concept for the National Whale Centre, which will eventually be housed in converted shipping containers looking over Picton's coast, was launched last June.

Marlborough District Council has donated funding for the project's concept development phase and will provide land for the attraction, which will detail New Zealand's whaling history as well as current conservation efforts for whales and dolphins. New Zealand artist Dick Frizzell and poet Sam Hunt have collaborated on the limited edition prints titled *One for the Whales* and other artists have also expressed interest in creating prints for the project.

A total of 53 of the world's 87 whale species pass through New Zealand waters, and Kaikoura – less than two hours drive from Picton – is a popular whale watching site.

The museum is expected to attract domestic and international tourists to the area. Details: <http://lei.sr?a=P6gz>

## BioMuseum for Panama City

Pritzker Prize-winner architect Frank Gehry will make his Latin American debut in August with the opening of a new museum in Panama City. Located in the birth country of Canadian-born Gehry's wife, Bertha, the new BioMuseum aims to educate about biodiversity and to raise awareness of the significance of the creation of the Isthmus of Panama.

The museum is funded by the Amador foundation with scientific support from the Smithsonian Institute and the University of Panama. Spanning 43,056sq ft (4,000sq m), the building will feature eight permanent galleries designed by Toronto-based design firm Bruce Mau. There will also be a public atrium, temporary exhibition spaces, cafeteria, exterior exhibits and a botanical garden designed by landscape designer Edwina von Gal.



The museum's focus will be the Isthmus of Panama

The galleries will cover subjects such as formation of the Isthmus of Panama, local biodiversity on land and sea, and 15,000 years of human culture. Details: <http://lei.sr?a=b5n7n>

## Museum of Mathematics opens in NY

The National Museum of Mathematics (MoMath), the first of its kind in the US, has launched in New York.

Spread across two floors and featuring more than 30 interactive exhibits, the museum has been designed to enhance public understanding and perception of mathematics.

It was developed over the past four years, in response to the closing of the Goudreau Museum – a small museum dedicated to mathematics and located on Long Island.

A working group first met in August 2008 to explore the creation of a museum of maths, one that would go well beyond the Goudreau, in both its scope and methodology.



The museum was developed over four years

Led by mathematician Glen Whitney, the group discovered that there was no dedicated museum of mathematics in the US, while demand for hands-on maths programming was increasing. Details: <http://lei.sr?a=Zuol>

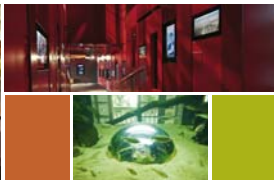
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Climbing trees and playing in the river as a child are the inspiration for Escape, Malaysia's new, sustainable theme park, which aims to coax children away from their computers and tvs

# SIM CHOO KHENG

JENNIFER HARBOTTLE • JOURNALIST

**T**here's something heart-warming about interviewing Sim Choo Kheng. As the CEO and creative talent behind the recently opened Escape theme park in Penang, Malaysia, Sim is driven as much by making people happy as he is by money – and his park is testament to that.

Forget rollercoasters, the latest 4D technology and hamburger joints, at Escape the emphasis is on re-discovering your inner child by experiencing play in its rawest form: such as climbing trees, swinging from ropes and not being told off for getting your clothes dirty.

Served up with a healthy dose of eco awareness, the inspiration behind Escape is Sim's own childhood and he's out to prove that despite today's children's fascination with ipads, Nerf guns and Barbie dvds, there really is no substitute for good old-fashioned play.



Sim hopes to recreate his idyllic, 'free-range' childhood with Escape

## THE SIM-PLE LIFE


As a boy, Sim grew up as a peasant in a tiny kampong – a basic traditional Malaysian village – in the middle of Penang Island. Gauging how tough things were financially for him and his family is hard, because Sim doesn't want to sound like he's selling a sob story, but he says his farmer parents had little in the way of money and Sim and his siblings shared a very frugal upbringing, in a small wooden house on in the edge of the rainforest, literally living off the land.

Far from bemoaning his lot, Sim waxes lyrical about his "free range childhood." He shares captivating stories of his typical days, spent larking around with the other village children, playing with the animals, farming the land and climbing trees, as well as swimming in the local lake and making his own toys from bits of wood. It's the growing chasm between

his self-professed "idyllic" childhood and the upbringing kids have today that inspired him to create Escape.

"I feel sorry for our children," he laments. "They're very institutionalised, and as parents we've become way too over-protective. Children don't play in the traditional sense any more, they just watch tv or sit in front of computers, which means they have few physical skills and they're rarely connected to nature, in the way that we were."

Combining his experience as a parent, 20 years as a theme park industry consultant and the fact he's "still a big kid," Sim's hoping Escape will achieve both his personal goal to motivate kids to play outdoors, as well as his professional goal to redefine theme parks, by proving that going back to basics does have appeal with consumers and can work as a legitimate business.



**"ASIANS LIVE IN CONDOS WITH NO OUTDOOR LIVES AND IT'S BEGINNING TO AFFECT OUR SOCIETY. I STARTED TO DREAM ABOUT WHAT I COULD DO TO CHANGE THAT"**

### DREAM CATCHING

Sim started his theme park career working in a local butterfly park, before getting the job as operations manager at Malaysia's largest waterpark, Sunway Lagoon. From there, he started his own waterpark consultancy called Sim Leisure, which, he says, created a niche by going into previously unchartered territory, such as post-war zones, to set up and manage attractions. However, it was after he was engaged to provide a complete turnkey service for the large-scale Lost Paradise of Dilmun waterpark in Bahrain, that Sim's focus turned to building and running his own park. "I realised how satisfying it was to design a whole attraction from start to finish and manage something I'd created," he says.

It was also during his frequent travels overseas that the seed of the idea for Escape began to grow. "Each time

I came back to Asia I was struck by how Asian kids don't play outside," he explains. "Asians are gadget people. We live in condos with no outdoor lives and it's beginning to affect our society."

"I started to dream about what I could do to change that and how I could create something that would draw on my childhood and capture the traditional values of our forefathers." Sim says he also wanted to address some of the problems facing this children's generation, such as their sedentary lifestyle and "indoor mentality", by encouraging physical wellness and a re-connection with nature.

The opportunity to realise his dream came in 2009, when an open tender came up to build a tourist attraction in his childhood home of Penang.

The government tender was for a 44-acre brownfield site, previously home to the Teluk Bahang reservoir. After win-

**Adventureplay, the park's first phase, is now open and covers seven of the available 44 acres**

ning the tender with its Escape theme park concept, Sim Leisure began work on its first phase, Adventureplay, just over 12 months ago.

### PLAY AT WORK

Adventureplay opened in November 2012 and is built on seven of the 44 acres. It combines physical challenges utilising existing jungle trees, such as rope bridges and climbing walls, with natural play activities including tree climbing and hill rolling. As well as a free fall experience and caving adventure, the park includes a Tubby Racer downhill tube ride and human-powered go-kart race called Zoom Bug. For little ▶



Kids can pan for gold in the stream, or climb trees at the park's most popular attraction

► ones, Adventureplay includes a Tot's Trail, where young children can practice climbing, crawling and balancing skills. Guests can also pan for gold in the stream, in what Sim calls a cultural nod to Malaysia's mining history. So far, Sim says Go Ape is one of the most popular attractions with guests – a tree-climbing challenge for all ages that rewards climbers with “stunning” views at the top. “Parents are always shocked that their kids can climb trees,” Sim says. “They’ve not seen them do it before or, more likely, they’ve not let them do it.”

In early 2013, work will begin on the second phase of the development of Escape – Waterplay. Built on 11 acres of land, it will feature play-based water attractions and rides, based on the activities Sim used to play as a child in the

## ABOUT SIM CHOO KHENG

### What are your hobbies?

The only real hobby I have is cooking – I find it relaxing. My favourite moment of the week is getting up early on Sunday morning to visit the local market to prepare a family meal. The smell of vegetables, spices, fish and meat is real and life-giving and gives me peace.

### What's your favourite food?

Asian food. I love noodles and could eat them for all three meals if necessary. It's rare for me not to noodle at least once a day when I'm in Asia. When travelling, pasta is sometimes the stand-in.

### What's your favourite film?

*First Blood (Rambo I)*. It's a simple story about one man being pushed too far. It's a long road, when you're on your own, but he somehow wins through – this is inspirational to me. I've never liked complicated movies with hundreds of twists. To me, movies should entertain, not confuse.

### What drives you?

Being different. I grew up surrounded by traditionally minded people who wanted to cut me down to size but I wasn't having that! Apart from living in a house (as opposed to a cave) and being married with kids, I don't usually conform to the norms. Perhaps my real driver is my ethos of being someone who's prepared to leave something good behind to try and discover something new.



### How would you describe yourself?

I'm a fully paid-up workaholic. The only time I do nothing is when I sleep. I'm funny when in the right company; I have a good sense of humour, with a dose of sarcasm – rather rare for an Asian! I'm also known for my decently dirty jokes.

I can't live without music – I think the world dies when music stops. I also think all the best songs were all written in the 1980s. So it's quite pointless to listen to anything written after that.

### How would others describe you?

People who don't know me usually read me wrong because of how I look. I've worn my hair spiky since the 1980s.

### What's the best piece of advice you've ever received?

From my mother a long time ago. She would nag me with the phrase: “People don't die from hard work.” I suppose I was converted in my young days.

river. This phase will open in 2014, after which the plan is to add more attractions to the 18-acres of yet-to-be-developed land in Adventureplay, including a chair lift, luge and zip lines, utilising the 60m (197ft) difference in height between the top and the bottom levels of the park.

Post 2014, Sim Leisure will develop a TreeTop Hotel plus cabins and tents on the property as part of phase three, which will be the final zone to open in 2017. As a branding exercise – and also one suspects, to indulge Sim's Peter Pan-esque love of all things nostalgic – a comic book is also in development for sale in the park, where the bad guys are based on the greedy big boys in the village that used to pinch his toys as a kid. “Or corrupt cronies who harm the environment in the name of profit,” he says.

Along with wellness and play, sustainability is a central theme in all three phases of the park. Adventureplay already practices water harvesting and pipe-free irrigation, as will phase two and three. With an abundance of rain in Malaysia, Sim says it's easy to conserve water, which is recycled wherever it can be, including in the park's toilet facilities.

The buildings in the park have grass roofs, to provoke conversation among the children, in what Sim describes as his attempt to “popularise being eco”. Adventureplay also has a special learning house where children can find out about nature and the environment. For those not interested in visiting this, Sim says he's enjoyed having a “playful dig” in signage throughout the park, which gently mocks computer and tv addicts.





## A GROWN-UP BUSINESS

Having led the concept and design of phase one of the park, Sim's role within the business is now part operational, part strategic. Every day Sim works a full day at the park, wearing his chief Escape officer badge and having fun with the guests, which he says is as much about providing fun for "senior kids" as it is for the children. Along with developing the park's next phase, it's a role he says he'll continue to do for the first six months at least, until things are running as smoothly he'd like.

If you think all this sounds like child's play, Sim admits there are some very grown up targets to reach before he can call his latest venture a success. The government, which has leased the land to Sim Leisure for 60 years, expects the

development to be fully realised by 2017. Having already ploughed RM18m (£3.7m, €4.5m, US\$5.9m) into the business to date, if he's to stay on track, Sim's going to have to find another RM162m (£33m, €40, US\$53) in the next five years to get the next two phases off the ground.

Running a world-class tourism destination in Malaysia also carries a number of issues that Sim says are a constant challenge. Finding local staff that understand and follow safety procedures is, he admits, a "constant headache" and although he imports managers from overseas, Sim says he finds the red tape involved in employing ex-pats in Malaysia incredibly frustrating.

On top of this, Sim says that the infancy of Malaysia's theme park industry brings another set of concerns. "Fifty

**At Escape, Children can enjoy a host of physical activity challenges, from walking on rope bridges to underground caving**

years ago in Malaysia, we were trying to work out how to put food on the table. Now we have a leisure industry, but in terms of people understanding it from an operational and user point of view, you can't fast track people's thinking. The industry may be changing, but it'll take time for people to catch up."

As such, ticket prices are another challenge Sim and his team are up against. At RM60 (£12, €15, \$19) per person for the whole day, Sim says domestic tourists consider Escape expensive, despite the fact that compared with other



► attractions worldwide, it's cheap. "It's not easy to create a world-class tourism destination that's affordable in the eyes of Malaysians," he explains. Longer term, as the new phases are rolled out, the park will target the overseas tourism market, but for now, with the focus on domestic tourists, Sim says it will take time to educate local guests that part of the ticket price goes towards providing safety and cleanliness that's in line with the rest of the developed world.

## PLAY DOUGH

To think that developing a theme park isn't in some part about making money is of course naive. And certainly, Sim talks about success in terms of financial rewards. Mainly, what he enjoys about having a "healthy" bank balance is that

he can afford to be choosier about where he works and who he works for these days. "The first time I was able to turn down a client because I didn't want to work with them, I knew I'd made it," he explains. "Being able to design my own park and run it, rather than helping others realise their dream, is the other part I really like about where I am right now."

While he concentrates on developing and running Escape in Penang, Sim's also working towards creating a franchise of Escape, so he can export his Malaysian-created theme park brand to other parts of the world. Sim now has his eyes set on Europe because he believes the green initiative and the idea of outdoor physical play appeals to Europeans. He's also keen to target the Middle East market, as he believes "it

**Sim says his back-to-nature theme park wants to show families the importance of natural play, wellness and sustainability**

has the money to make things happen there much quicker".

However, Sim acknowledges that to create a successful franchise concept, Escape first needs to be successful in his home country. For that to happen, he needs to convince people to buy into its philosophy and ideals. "Escape is different from other theme parks, which will either make or break it. It's a re-visioning and departure from conventional ideas of rollercoaster rides and sugar-coated fantasies. It's about escaping to a time before you needed that to have fun." ●





A new 3D project has brought Egypt's Giza pyramids to life, allowing them to be shared worldwide while protecting their heritage

NICK LERNER • CONSULTANT

Rectangular buildings called mastabas covered Giza Plateau



# POINTS OF VIEW

**S**ituated on the outskirts of Cairo, Africa's largest city, the Giza Plateau is a little-known archaeological jewel. Over the centuries, the ancient Egyptians built Giza into a vast necropolis, rich in lessons about their civilization, conception of the afterlife, architectural knowledge, art and writing.

The area is subject to threats from all sides, from rampant urban sprawl, the elements and even vandalism. This raises two questions – how can this heritage be preserved and how can it be shared with as many as possible? The Giza 3D project has the answers.

On the Nile's west bank, opposite the ancient city of Cairo, the Giza Plateau constitutes a vast necropolis at the desert's edge, spread across 2,000m (6,562ft) from east to west and 1,500m (4,921ft) from north to south.

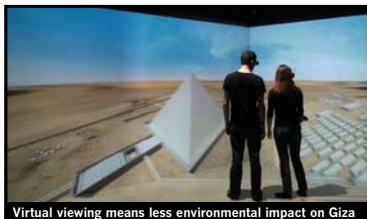
Around the pyramids, where the kings are entombed, flanked by smaller satellite pyramids for their queens, the Egyptians customarily buried family members and dignitaries, so that they could enjoy the beneficent influence of the proximity of their sovereign in their journey to the hereafter. Over the centuries, the Giza Plateau was gradually covered with rectangular buildings called mastabas (mastaba means bench in Arabic), temples which were dedicated to worship, pits containing giant funerary boats and a network of passages and causeways.

It all constitutes a rich funerary complex, unfortunately much the worse for looting and the passage of time. The best-preserved royal mortuary complex, dedicated to the pharaoh Khafre, gives us an idea of what the necropolis must have been like in its heyday.

## ENDANGERED ZONE

The Giza Plateau is an endangered heritage zone. The entire site is threatened by a combination of adverse factors. In addition to erosion by the weather, with sandstorms and temperature fluctuations, there's also the human element. With growing urbanisation, Cairo's megalopolis is now encroaching on the site itself with problems including pollution that attacks limestone. Moreover, the site is victim to its own success. Abrasion from millions of footsteps, and carbon dioxide exhalations of vast numbers of visitors attack the stone of the pyramids and mastaba. There's additional damage from graffiti and people who have tried to extract stones.

Add this to the worldwide museum diaspora of objects extracted from the plateau since Egyptology's infancy, and the Giza Necropolis is practically



Virtual viewing means less environmental impact on Giza



Using 3D glasses, people can explore underground tombs





▲ The technology brings the era of the ancient Egyptians to life  
 ► US Egyptologist George Reisner oversaw 40 years of excavations on the Necropolis

impossible to study in its entirety. To do so would involve bringing together information and objects that have been scattered throughout the world, listing, classifying and documenting them. The task is massive. And yet, a good start has been made.

#### EXCAVATIONS

In 1904, Egyptologist George Reisner began work on the Giza Necropolis. During 40 years of excavations, he unearthed thousands of remains and works of art and left a thorough catalogue of his explorations, with 45,000 photographic glass plate negatives, tens of thousands of pages of diaries, manuscripts, and reports, countless maps, diagrams, notes and copious correspondence.

George Reisner's death in 1942 and the Second World War eventually put an end to the mission, and the fruits of the expedition archives were sent home to the Museum of Fine Arts Boston (MFA), USA, along with all the reports and other materials.

This immense resource remained practically unused until the beginning of the 1970s when the MFA's curator, William Kelly Simpson, returned to Giza for new excavations. Continuing Reisner's work, he embarked on systematically logging the mastaba tombs in a monograph series. The task was a daunting one, as finding the infor-



mation about a given mastaba on the ground was very difficult. Moreover, seeking remote access to the archives, for example by foreign students, was practically impossible. And the fragility of certain media, such as the famous glass plate photographs, complicated their transport and handling.

#### DIGITISATION

In 2000, thanks to the support of the Andrew W Mellon Foundation, the MFA was able to launch a major project. Technical progress and the democratisation of digital technology made it possible to initiate the Giza Archives Project, involving the digitisation of both the immense Reisner collection and selected data scattered among universities and museums worldwide.

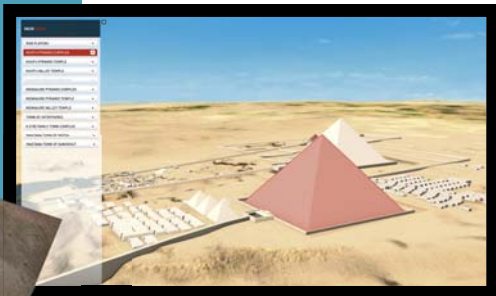
The challenges were manifold: a gigantic task of digitising the available records, entering data, establishing coherent cross-indexing and constructing a database to facilitate search by various criteria. It took years of dedi-



cated work to complete the digitisation of the Reisner expedition archives. The next task was to provide the simplest and most effective access possible to the archives, whether for university researchers or the public looking for more on the wonders of Giza.

The Web was the preferred solution, and the website of the Giza Archives Project was put online. Several modes of searching the database catered to the needs of all types of users, along with explanatory videos.

- Website visitors can just click for a host of detailed information
- ▼ Several modes of searching the database for objects or places will appeal to all types of users



### THE MASTABAS AND OTHER MONUMENTS CAN BE VISITED IN 3D IN A STATE OF VIRTUAL CONSERVATION CONSIDERABLY BETTER THAN THE REALITY

- Now people can click on a mastaba while flying over a photo of the Giza Plateau and obtain a wealth of information, such as the identity of its occupants, the date of its discovery, the exploration report, the list and photographs of remains and more. Visitors can also search the database by entering the specific identifier of a tomb or object in the catalogue and quickly obtain all the desired information.

The depth of its content and interface have made the Giza Archives Project website the leading reference resource on the Giza Necropolis.

#### A NEW DIMENSION

Fantastic as this achievement was, Dr Peter Der Manuelian, director of the Giza Archive Project, wanted to take it further. In 2007 he saw a 3D presentation of the theory of the building of the

Khufu pyramid, which took audiences to the heart of the original construction work on the Great Pyramid.

Created by 3D experience company Dassault Systèmes, the 3D immersion in a virtual Egypt offered unprecedented realism, all the more so as the experience was interactive. It wasn't a film with a fixed screenplay, where the 3D was calculated in advance, but a live adventure where the 3D was presented in real time and depended on the movements made in the virtual world.

A 3D-jockey, or 3DJ led the spectators around the Khufu construction site, following directions to approach certain details or enter particular spaces. The 3D virtual experience was also uploaded to the Dassault Systèmes website, allowing millions of internet users to take off for the Egypt of Khufu's time. A documentary mixing

footage shot in the field and 3D images of the experience was produced the following year.

Der Manuelian realised the added value potential of immersive 3D for navigating through the immense data pertaining to Giza, so approached the team at Dassault Systèmes. Different eras in the history of the Giza Necropolis had to be reconstituted and the data digitised to create an interactive experience that put the finds in their proper context. In this way, the general public could visit an extremely realistic, virtual Giza Necropolis. Researchers and academics could also share new data and collaborate to advance the state of knowledge of the Giza Plateau together.

#### TIME TRAVEL

The ravages of weather have left tombs on the Giza Plateau in poor condition.



Researchers and academics can share data more easily



The 3D project taps into the immense Reisner archives



Using information compiled in expeditions, the Necropolis has been reconstituted at various periods in time. As a result, the mastabas and other monuments can be visited in 3D in a state of virtual conservation considerably better than the reality, as some have entirely disappeared.

The Necropolis can now be viewed in various stages of completion and from any angle, including aerial 3D views, cross sections of the ground and passing through walls. People can visit a mastaba, restore all the finds discovered there to their original context and consult the available documentation from the database.

The tombs can also be considered from other angles, such as isolating a sub-group and observing the relations between the tombs of a single family or going below ground to follow the complicated maze of shafts linking tombs in search of a logical system or a story.

Reconstruction of vanished temples or tombs from available information makes it possible to trace the entire history of the Giza Plateau at different eras and follow the development of the Necropolis down through the centuries. Various arrangements of the monuments can be quickly prototyped, allowing simple and speedy testing of multiple hypotheses. The use of 3D has enabled the discovery of new correlations, raising fresh questions and



helping to advance the overall knowledge of Giza.

#### TOMORROW'S MUSEUMS

The online publication of the Giza 3D project makes sharing it much easier. Instead of shipping fragile archival photos and documents from collections around the world for temporary exhibitions, the digitised, 3D can be placed in context of the tombs they came from, with all the corresponding information.

- ▲ The 3D experience offers viewers unprecedented realism
- ◀ People can see key artefacts in their original setting, virtually

Installed in interactive terminals or on pads provided, interactive 3D can give visitors a new dimension to objects exhibited in glass cases, showing them in their context and bringing them to life, balancing scientific discipline and technological creativity.

Museums can equip themselves with everything from simple 3D televisions, such as those used in the At the Foot of the Great Pyramids temporary exhibition at Germany's Pelizaeus-Museum in Hildesheim and a forthcoming exhibition in Vienna planned for this year – to more complex immersive systems. These include a virtual reality cave with interactive tours where visitors wear special glasses and visit the restored tombs, shafts and burial chambers.

Giza 3D is a complex project involving management of a wealth of data in an attractive, realistic and user-friendly presentation. It's both a demonstration of the power of 3D in the service of specialised research and an example of universal knowledge sharing. ●

For more information, visit <http://giza3d.3ds.com>

The goal of the NCM is to inspire and promote creativity



Engaging children through contemporary art and helping them become future productive citizens are the aims of San Diego's New Children's Museum. The Top Team explain how

# PLAY AND DISPLAY

KATHLEEN WHYMAN • MANAGING EDITOR • ATTRACTIONS MANAGEMENT

**JULIANNE MARKOW**  
Executive director and CEO



## What is the NCM?

The New Children's Museum (NCM) is the only children's museum in the US with a mission dedicated to commissioning artists to create site-specific installations for an audience of children and families.

## What was the inspiration?

NCM was founded as a traditional children's museum. In the early 1990s, the museum started using contemporary art as its focus, inspired by the work of American artist Alan Kaprow, who saw art as a way to explore the world. Another influence was Victor D'Amico from the Museum of Modern Art in New York. He believed children should be allowed to engage in open-ended ways of art to explore their own creativity.

## What is the museum's aim?

Our mission is to inspire creativity, imagination and critical thinking in children and families through contemporary art. Using that inspiration, we aim to help children develop the skills that we believe are important for future productive citizens. We want to give them the ability to collaborate, do general problem solving and look at the world in a slightly different way.

We also want to help people become comfortable with art, so we present it in very non-threatening ways to show it's there for all of us to enjoy.

## What changes have you made?

The major change that we're in the process of implementing is to focus even more on being child-centric. So, instead of being a contemporary art

museum for children and families, we're a children's museum that centres on contemporary art.

Another aim is for everything we offer at NCM to be pleasantly frustrating and engagingly compelling, so our visitors want to come back and do it again.

## How did you set up the top team?

When I started a year ago there was only one senior staff person – Tomoko – in place. I viewed it as an opportunity to hand-pick the other directors and make sure there was the right chemistry.

The biggest challenge was needing to take the time to find those people without other senior staff in place to support that effort. It just meant it took us a little longer to get going, but we have a great staff in place now and everyone works really well together.

**"WE WANT PEOPLE TO BECOME COMFORTABLE WITH ART, SO WE PRESENT IT IN NON-THREATENING WAYS"**





Children learn through play, with the varied activities giving them the chance to explore their imagination and think laterally



#### How do you work with the community?

We have a Partner in Creativity programme with Monarch School, which is for homeless children, who can visit the museum for free. We're expanding that programme to other non-profit social service organisations, such as Voices For Children, which helps with fostering and guides people through the legal system.

We also work with local universities. Undergraduates at San Diego State University built some fantastic cardboard furniture for our lounge area as part of their design course.

#### What are the highs and lows?

I love going down to the floor of the museum and seeing the children interacting and enjoying the museum and participating in all that we offer. That's affirmation of everything we do.

One of my saddest moments was seeing a little boy from the Monarch School refusing to get on the bus to go back. It broke my heart because he'd had a great time, but probably wouldn't get to come again.

**HANNAH BERGER**  
Director, development



#### What's your role?

I oversee our membership programme and all the contributed income. That's our entire fund-raising initiative around corporations, foundations, individuals and government funding.

#### How is the museum funded?

We receive donations from corporate partners, private and public foundations and individuals. Around 10 per cent of funding comes from government entities.

I don't oversee rentals (we hire the museum out for corporate events, parties, weddings and school proms) or our fee-based programmes, such as summer camps and teacher-training courses.

#### How do you keep donations coming in?

Part of it is having an ambitious team; part of it is having a good strategy and

a robust calendar for the entire year. We plan ahead and always look for new sources of revenue and opportunities.

#### What's your strategy?

Our mission is to inspire creativity and innovation in children and families in San Diego. We seek out the companies and individuals who that message speaks to, build relationships with them and then ask them to help us build relationships with others. I like to call it fundraising.

#### What are the main challenges?

2012 was an election year so donations were redirected towards political campaigns. There may be big changes in our tax code in 2013, so people are concerned about how they spend their money. Those are factors I can't control.

We overcome them by sticking to our plan and communicating how important it is to keep investing in our community and our museum. The resource and the services we provide ensure that San Diego stays competitive in the future. ▶

**TOMOKO KUTA**  
Director, education  
and exhibitions



### What do you exhibit?

We don't present traditional, interactive play pieces. Instead, we commission contemporary artists to create unique art installations that can be played with, crawled on and jumped through.

Our current exhibition is called Trash and covers three floors – 35,000sq ft (3,250sq m) of public gallery space. Twelve contemporary artists considered trash within their work or worked with recycled objects.

We're working on our exhibition for autumn 2013. It's called Feast – The Art of Playing With Your Food. It's focused on food, but we're not trying to document or explain the process of food production, as we're not a science museum. We've found a number of contemporary artists who either use food as a building material or food in their concepts – the production, transportation or the modification of food.

### How do you choose the pieces?

We invite the artist to visit our space. To see children interacting with the art-

work is an eye opener for the artist, so we need to make sure this is something they're comfortable with.

We've been in communication with some of the artists since spring 2012. It takes that long to go back and forth to share ideas and make sure everyone's comfortable. Then there's a safety check to make sure the artwork is safe for children to play with, which leads to another big conversation. There are certain materials that work and some that won't withstand the love of the children.

### How many exhibitions are there?

Until now we've turned the whole museum over to one big exhibition, which runs for two years. We're now exploring the idea of multiple exhibitions that open at different times and have each exhibition running for about a year to give diversity to our visitors.

### What are the museum's educational elements?

We bring in about 15,000 children from the San Diego area every year and they spend several hours here and get a hands-on component as part of their visit. Public schools in the US are having a tough time with the budget cuts. We try to provide arts education that meets school standards, so children have some

exposure to the arts – not just looking at art, but the creative process that's so stimulating and important for children.

We also have a modest outreach programme for schools, which we'll be increasing in 2013. The budget constraints on schools has made it difficult for them to come to us. Admission fees for school groups is very minimal and we have a category of schools called Title One. These are located in economically disadvantaged areas. They can visit us for free but it's expensive to get the school bus to us, so we're making a concerted effort to provide programming where we send out our trained facilitators into the classroom.

### What is the most important part of your job?

There are so many details, evaluations, reports and meetings that must be done, but the most important thing is not to forget the visitor who's out on the floor touching and feeling all the things that we've prepared.

I try to visit the floor every day to talk to people and hear the laughter. Or hear the quiet and do something about that because it shouldn't be a quiet museum.

### What are your future plans?

The NCM has a new thematic exhibition every two years. We're working on Feast, which will open in October 2013.

We want to keep the museum fresh and exciting, so we're looking at changing the exhibitions more often and perhaps having more than one at a time.

**“WE'RE WORKING ON OUR EXHIBITION FOR AUTUMN. IT'S CALLED FEAST - THE ART OF PLAYING WITH YOUR FOOD”**



Artists are invited to visit and watch children interacting to help gain insight into what constitutes safe, child-friendly art



Twelve contemporary artists worked with recycled objects to come up with ideas for Trash, the museum's current exhibition

#### KERRI FOX

Director, marketing and communications



#### Who is NCM for?

Toddlers to teens. We have things that appeal to all age levels, but our demographic tends to be people with children under six, while their older siblings are at school. At weekends, the audience is families with children aged 12 and under.

School groups have a range of ages and we tailor the curriculum accordingly.

Our seasonal camps are attended by all ages – preschool through to high-school age. A contemporary artist works with the kids in the camp and they create artwork during the week they're here.

#### What marketing and PR do you do?

We have a layered marketing mix, including broadcast, print, online and social media. We take advantage of public relations as much as possible. We can't afford the kind of exposure I'd love, so we devote a lot of time ensuring we get written about or profiled. For example, we've been on the morning news several times where they talk about what we're doing. We keep our website up-to-date and on listings of what to do in San Diego. We post on Facebook and Twitter daily, respond as quickly as we can and have a lot of dialogue with people.

We've just committed to be the sponsor of the family amenities section at one of the local malls, which has a foot-



fall of nine million people a year. We, with a funding partner, are going to be the sponsor and have a huge presence. We'll have a billboard and be on banners and their electronic communication. We'll be able to have events and outreach and art-making activities.

#### How do you market to different audiences?

While we're always talking to families, we have two key target groups: locals within San Diego, as well as people who are visiting the area. To attract tourists, we're working with ConVis as well as local hotels and utilising tourism-targeted media.

Our tourism message is a fairly broad one, encouraging them to visit. For locals we're more specific about what we're doing – the programmes, the changing art activities, workshops and events.

**NCM provides a host of busy workshops to involve children**

#### What are the main challenges?

We're a new museum, not even five years old, and we're a new team looking at it with fresh eyes. The key challenge we're all facing is that there's so much we want to do, and just not enough time in the day. We're working on prioritising and laying out our plan for the next few years so we can accomplish our goals.

#### What are the future plans?

In the future we want the museum to be synonymous with San Diego. We want people to think about The New Children's Museum when they think of other well-known San Diego destinations, such as SeaWorld, Legoland and the zoo. ►



Artist Chris Sollars draws attention to the items thrown away and what happens to trash once it disappears from sight

**WADE LINDENBERGER**  
Director of finance and  
administration



## What's your role?

I'm responsible for all the operations of the museum finance, information technology (IT), human resources (HR) and facilities. We're the behind-the-scenes support for the team. Day to day I manage our finances, make sure our facility is welcoming and safe for visitors and that employees get everything they need to do their job.

## How do you juggle the different elements?

The multiple roles can be a challenge from time to time. I look at each separately and plan my day and set my objectives according to the needs of each of those functions.

Finance needs a steady amount of attention because I'm constantly looking at the best way to utilise our assets. I want to make sure we can fund our programmes and the things we want to do at the museum. We also need to get the highest quality information to our stakeholders and the other people we work

with. HR is also a fairly constant requirement – it's important the employees are competitively rewarded and have a positive, supportive work environment. On the IT side, I'm always watching to make sure the communications elements are available and working effectively, that we're able to get our messages out to the public and that the people behind the scenes can use their computers and other equipment to communicate.

We have a good strategy in place on the IT side and I have a very good facilities manager, so I don't get involved in these on a day-to-day basis.

## What are your future plans?

We have the opportunity to take advantage of technology, both behind the scenes and in our museum. We envision having a highly interactive museum with handheld devices and looking at things in the museum in a high-technology way. That's a goal and challenge of mine, both from a technology standpoint and a financial one.

This year we're hoping to put in a more robust wireless network. By 2015 we want to take the next step and have that higher interactivity within the museum. It's an exciting development.



From summer camps to weekend visits, the goal is for children to enjoy the trip





Cardboard is given a new lease of life

**CELESTE HILLING**  
Board Chair



#### How did you get involved with NCM?

A woman I admire was heading up the process to organise the board and raise money to build a place for families to explore creative thinking, play and innovation. Those concepts appealed to me.

#### Why did you become a board member?

I wanted to be engaged in creating the next generation of innovative thinkers in the San Diego community. Preparing our kids to have critical thinking skills and confidence is important to the business and cultural viability of any city. Plus, being on the board was a great way to ensure that this new model of museum experience became a reality.

#### What work does the board do?

The board helps support the strategic

direction of the museum and its staff. Board members are ambassadors for the museum and we use our network of contacts to spread the vision out among the community and help raise the money needed to sustain the vision. We also serve as a support system for the staff.

#### What does your role as chair involve?

The role of chair is to be the passionate ambassador for the board in the community, be a liaison between the staff and board, motivate the board, and to

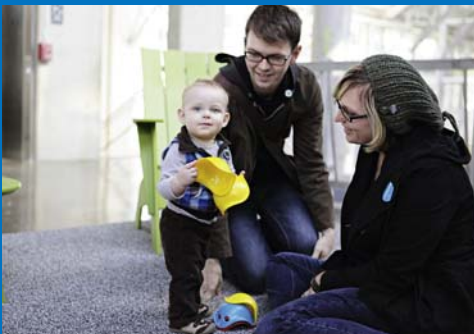
always communicate, communicate, communicate!

#### What are the challenges?

As a non-profit, the challenge is always fundraising. You're never out of fundraising mode. The board and staff constantly have to be thinking of ways to deliver value and find a role in the community to fill the hole that other groups aren't filling.

#### What are your future aims for the NCM?

Keeping the momentum going and having a reach beyond San Diego. We've created such a unique model for all kinds of families to learn about the arts. I'd love to see that model repeated around the world. ●



Top: Vik Muniz's photo of a person collecting materials from a landfill in Brazil; Above: A family outing shows even the youngest of children getting involved

**"I WANTED TO BE ENGAGED IN CREATING THE NEXT  
GENERATION OF INNOVATIVE THINKERS IN SAN DIEGO"**

# HIGH LIFE

At 244m high, The View from The Shard is Western Europe's tallest viewing platform. Chief executive Anders Nyberg explains why he believes it offers the best view in the world

KATHLEEN WHYMAN • MANAGING EDITOR • ATTRactions MANAGEMENT

Guests are 244m above London at the highest public level, floor 72

## ANDERS NYBERG CHIEF EXECUTIVE THE VIEW FROM THE SHARD



### What is The View from The Shard?

The View from The Shard is the new premium, multi-sensory visitor experience at The Shard – London's newest landmark, Britain's first vertical town and Western Europe's tallest building at 310m (1,016ft). The visitor experience, which opened on 1st February, gets peo-

ple immersed in London before they go up and see it. It's the only place in the capital where you can see the entire city.

The street entrance and level 33 showcase the past, present and future of London through multimedia displays and installations. Two high-speed lifts take guests to level 33, then on to level 68 in just 30 seconds each. They then walk up to level 69 to take in the 360-degree, 64km (40 miles) view of London.

Guests can choose to go even higher to the full 244m at level 72, the highest public level of The Shard. The buildings' fractures don't come together – the corners are exposed and open – so the elements and atmosphere come in.

We're working on a kind of sculpture that picks up and amplifies the sounds of the city and offers an audio experience. Guests who stand in that pool of sound pick up what's going on in the city

below. We aim to have this additional feature in place later this year.

### What makes this view so special?

London isn't a massively built up, vertical city, so when you're up there you see rich layers of history and architecture.

Rather than just seeing rooftops, you go from the Tower of London, to the Gherkin, to St Paul's. It's all laid out for you. You don't get that experience anywhere else. The Thames snaking out before you and the railroads tracks make it even more amazing. It's fabulous.

### Why are viewing platforms so appealing?

It's an opportunity to go up an iconic structure and see your surroundings in a way that isn't possible otherwise, other than renting a helicopter, which is out of the range of most people. There's the

View from the top: London landmarks within a 64km radius are on show



thrill factor of the lift ride before getting out and seeing the city open up before you. Views are inspirational.

#### **What are Tell:scopes?**

Tell:scopes are high tech digital telescopes with LCD screens hooked up to a video lens. Guests can use the touchscreens to pinpoint up to 200 famous landmarks and places and find out more about them. They can also switch between the live view to a night time view or a perfect day, so if it's hazy or cloudy they can still see a clear view.

The 12 Tell:scopes are positioned around the 68th floor so the city can be zoomed in on from different angles. Available in 10 languages, they're highly adjustable so can come down to a child's height or for a disabled person. Made by GSM in Montreal, they're currently in Dubai, Asia, Canada and North America, but this is their first use in Europe.

#### **Is there an app?**

We're working on an app that people can download to their smart device that will offer the same content as the Tell:scope.

**There are 12 Tell:scopes on the 68th floor. LCD screens are hooked up to a video lens, allowing visitors to zoom in on city landmarks from different angles**

The app will use the GPS in smart devices the same way the Tell:scope does, so people can walk around with it. We'll charge a nominal fee and they can take the app home with them.

We're talking with the Museum of London to use their archival footage and finding historical views of the city so you could look back to past views of the city.

**“LONDON ISN'T A MASSIVELY BUILT UP, VERTICAL CITY, SO WHEN YOU'RE UP THERE YOU SEE RICH LAYERS OF HISTORY AND ARCHITECTURE”**

#### **What will be the operational challenges?**

We're going to be open from 9am til 10pm and will probably be moving





- ▶ around 300 people an hour through the attraction. All our tickets are timed so we have an obligation to people to deliver the experience at the booked time. That'll be an ongoing challenge. If we have a problem with the lift, it'll cut down our capability dramatically.

**The View will operate a timed ticket system to help eliminate queues. Up to a million visitors are expected annually**



### Who will the visitor be?

We think we'll start off with 60 per cent domestic visitors, which will swing to 60 per cent tourists over the course of two or three years. Tens of thousands of tickets have been sold since July 2012.

We have space for 400 people an hour, but at any one time we only expect to have between 250 and 300 people up there, staying for an average of 45-minutes on the top floors. It'll be three-quarters of our capacity and will be comfortable. We're very confident that it won't be crowded. Annually, we're forecasting a million people.

There's a great deal of local interest, as there isn't anywhere like this and people have watched the building's progress as it's risen from the ground. We had a press launch in late October and the press we got was phenomenal.

My favourite quote was: "If you think you can't afford it, sell something."

### How many staff are there?

We've recruited 75 people who are part of the customer facing team. Staff are called guest ambassadors. They help with tickets, guest access and answering questions in the viewing gallery.

They'd had very extensive training in health and safety, technical training on ticketing and retail systems, human management training and grooming. The training structure is probably akin to a five-star hotel.

### How is ticketing handled?

An average of 54 million people go through London Bridge a year.

At the main entrance to The View from The Shard, there are large screen boxes

offering views from the top and digital signage tied in with our ticketing system inventory, so people can see what's available before they come in, to set their expectations.

We've done everything we can to eliminate queuing. All tickets are dated and timed. There's a price differential if you buy in advance. The ticketing is print at home, so many people will have an e-ticket. Those who don't can collect their pre-booked tickets at pick-up stations. The system has been supplied by Omni Ticket and the tickets are read at speed gates.

### What security is there?

People are more aware of security since 9/11. Now we have metal detectors and scanning machines. It's a fact of life. We have several floors of corporate office, restaurants, a five-star hotel and high-end residences, so we have an obligation to keep all of that secure.

### How was the ticket price decided?

We've done extensive market research. We're creating a premium, up-market experience, with virtually no queues and we're operating below capacity to ensure everyone has a great experience. All those things led to our market research audience pegging the price between £25 and £30, so we're charging £24.99. ▶

## ABOUT THE SHARD

The Shard is a landmark building on the London skyline, designed by master architect Renzo Piano (see *interview on p44*). At a height of 310 m (1,016 ft), the building is in the historic London Bridge Quarter in the heart of London.

The Shard is a vertical city with high-quality offices, international restaurants,

the five-star Shangri-La hotel, exclusive residences and visitor attraction The View from The Shard.

The View from The Shard is operated by Shard Viewing Gallery Management Ltd. The company was formed out of the ownership entity of London Bridge Quarter and The Shard.





The Shard is described as a vertical city with restaurants, offices, five-star hotel and private residences as well as the View

# ABOUT THE VISITOR EXPERIENCE

## KEVIN MURPHY

DEVELOPMENT  
DIRECTOR  
EVENT  
COMMUNICATIONS



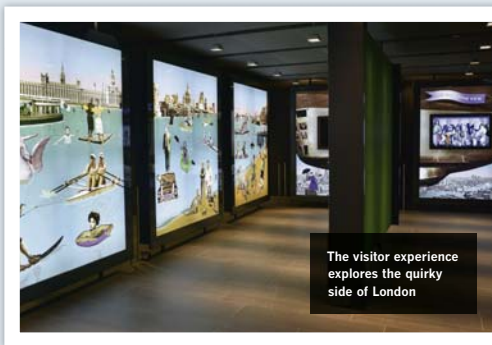
**"O**ur aim is for The View from The Shard to be the first stop for visitors to London, and for it to define their experience of the city. Where else can you see the whole of the city and plan your stay? To achieve this, we decided to tell the story of the quirkiest parts of the city that aren't so familiar and of Londoners and people who have lived in or influenced London.

We looked for diversity and things people wouldn't normally think of and hope people will be inspired to seek these places out.

## AUDIOVISUAL

People come to The Shard to get the view, but by working with the client team plus DJ Willrich who did the AV hardware, Elbow Productions Ltd who provided AV and media production and Benchworks Ltd for the networks, we've created a quality experience that starts at the website when people book and continues from when they enter the door. We could just take guests straight to the top of the building, but we're giving them much more than that. We have a number of multimedia screens and visual stimuli in at the ground floor and the walk through to the escalators, but once visitors get to top, the focus is on the view. We purposely haven't put too much interpretation around the view, as we want guests to be looking out, not in.

We commissioned composer David Mitchum to write a piece of music that evokes the experience and grandeur of the building. It was recorded at Abbey



The visitor experience explores the quirky side of London

Road Studios by the London Symphony Orchestra, so ties into the city theme.

## MEDIA

The View from The Shard is a premium attraction, so queuing will be minimal, but we want any visit and passage through security to be an experience, so there are very large graphics showing characters in odd situations. We looked for famous Londoners and people who were inspired by or had an influence or impact on the city, such as Benjamin Franklin who lived in London for 16 years. We then looked for situations that were comical, that these people would never find themselves in and that raise an eyebrow. These include the Duke and Duchess of Cambridge as a pearly king and queen; mayor Boris Johnson shining former mayor Ken Livingstone's shoes; suffragette Emmeline Pankhurst pointing the way to emancipation with the Spice Girls; and Prince Charles judging architecture in a sand castle competition.

At the security check, visitors walk through a metal detector and their

bag goes through a scanning machine. Panels here show tongue in cheek images of Sherlock Holmes, Jack the Ripper, Crippen and police officers.

After security, cameras are tied into screens which take a guest's picture and transfer their image onto a character in the picture, such as in Sergeant Pepper's balloon. They'll see themselves on the screen along with the other 10 or 12 people in front of them and be able to buy souvenir images at the end.

Screens outside the first lift doors show where they currently are to give a scale to the building. The image shows it's a vertical city plus a transport hub, with trains running under the building.

## HIGHS AND LOWS

We hit a few practical challenges in terms of the size of the building and cable runs because of the distances involved. The biggest personal challenge for me was getting over my vertigo, as we initially had to use a lift outside of the building. The first time I nearly got off halfway up and left the rest of the team to it, but I would never have lived down the shame, so I got through it.

The delight has been working with an architect who wants to work with us. It's very rare to see an architect embracing the creative element of a project. That, and a client team that wants to have fun. It's been very refreshing. ●

**"PEOPLE COME FOR THE VIEW. WE COULD JUST TAKE GUESTS STRAIGHT TO THE TOP OF THE BUILDING, BUT WE'RE GIVING THEM MUCH MORE THAN THAT"**

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TAKING TECHNOLOGY FURTHER

Creating a striking, functional, mixed-use building was architect William Matthews' aim when designing The Shard of Glass, the towering new addition to London's skyline

KATHLEEN WHYMAN • MANAGING EDITOR • ATTRACTIONS MANAGEMENT

# SKY HIGH



## What inspired The Shard's design?

It was very important to us at Renzo Piano Building Workshop that such a tall building was accessible to the public. Around the world, the tall buildings that are known and loved – that are featured on T-shirts – are the ones that people can access, such as the Eiffel Tower and Empire State Building.

So, we didn't want a normal city building that closed at 5pm on a Friday and opened again on Monday. It had to be functioning seven days a week, which led to the mix of uses – offices, restaurant, hotel, some apartments and a viewing gallery. The gallery is aiming for one million visitors a year and there

are only 10 residents in the apartments, so they have very different uses, but are in the same building.

We wanted to create an open building so avoided using heavily tinted glass, which blocks out all

life going on inside. Glass is an open, transparent material. You can see lights on inside, which show it's functioning. By inclining the sides, it reflects the sky and the weather, so the building changes throughout the day, similar to a weather vane. The spire doesn't meet at the top, so visitors feel the London air.

## How does The Shard enhance the capital city's skyline?

London isn't New York, Singapore or Hong Kong, where a tall building is just another skyscraper in the forest. In London there is no forest; the building is against the sky. The Shard's spire shape is a form that has resonance throughout the UK as it echoes the outline of its historical churches. It also represents the masts of boats that used to moor in the Thames – tall, slender elements that rested against the skyline in old London.

Up until the 19th century, London Bridge was the only bridge across the Thames and was the centre of London. To have the tallest building next to the bridge, in the middle of London, is appropriate and gives definition to where the centre of London is.

## What is the design's message?

The building might be privately financed, but it's not just a commercial venture that's landed on the skyline – it's a building that the public can enter: to visit the restaurant; stay at the hotel or go to the top to see the view.

People often think that architecture is just about aesthetics and the physical elements, but this is the political, social side of architecture.

## What was the brief?

We had a very, very brief brief. In fact, the page was blank.

The most important thing with a good building is a good client. The client listened to us and we listened to them. It's a shared vision.

Initially they didn't like the sound of a viewing gallery, but then realised it had commercial viability to it as well as a socio-political importance in gaining acceptance of the project.

## What were the challenges?

The first challenge was planning. This building represents a change for the city. Not only is it substantially taller than the



Project architect William Matthews

**"THE BUILDING MIGHT BE PRIVATELY FINANCED,  
BUT IT'S NOT JUST A COMMERCIAL VENTURE THAT'S  
LANDED ON THE SKYLINE – THE PUBLIC CAN ENTER"**



The Shard is a pointed reminder of London's collection of comparatively low-rise buildings



At the top, visitors will be able to gaze at an unprecedented panoramic view of the cityscape



Window cleaners suspended at dizzying heights as they clean the monumental glass building

others, it's mixed use, which no other tall building in London is. It took three-and-a-half years to get planning. We had to go through a public enquiry, which costs a lot of money.

The principle opponent was English Heritage. There are protected views of St Paul's Cathedral and we're in the backdrop of two of those views. We argued that as we're replacing some pretty uninspiring views that are already in the backdrop, we're improving the situation and fortunately the planning inspector agreed with us.





**"I HOPE PEOPLE VISIT THE SHARD BECAUSE THEY'RE INTERESTED IN THE BUILDING, AS WELL AS THE VIEW. WE'LL KNOW IF IT'S WORKED IN FIVE YEARS' TIME"**

Above: Matthews sees The Shard as a 21st layer to a very old city; Below: The Shard hosts a mix of offices, apartments, restaurant, hotel and viewing gallery



► Getting tenants was another challenge. The client had to get some to prove the viability of the building. Fortunately, they got two tenants early on – Shangri-La took the hotel in 2005 and Transport for London took office space in 2006.

The biggest challenge was financing the building. The client had financing in place in 2008, then the credit crunch came and the funding was withdrawn. Fortunately, at that time, the Qatari government had also been interested and they stepped in as both investors and financiers. So they gave us the mortgage and bought the house as well.

Of the four hurdles – planning, getting tenants, financing and building it – building was the easiest bit as, weather permitting, we could just get on with it. We have a big, experienced, knowledgeable team who are used to constructing

tall buildings. It'd probably be more of a challenge for us to do a kitchen extension, as we're not used to it!

### **What's the evacuation process?**

Post 9/11 people are much more aware of evacuation strategies. We use the lifts to get people out – they have a back up power generation and smoke pressure relief and are quick and safe.

With a mixed-use building it's a challenge because everyone has their own lift banks: there are 43 altogether.

### **How does the architecture enhance the experience?**

You could argue that you could see the view from the top of a beanpole, but I think the building is important. Consider the Rockefeller Center and the Empire State Building. In many ways the

Rockefeller's view is better because you can see Central Park and the Empire State Building, but the latter gets many more visitors because it's an iconic building. Similarly, in Paris, the Tour Montparnasse is a horrible building – it's the only skyscraper in Paris and went up in the early 1970s – so, despite its great view, it gets a fraction of the visitors that the Eiffel Tower does.

I hope people come to visit The Shard because they're interested in the building, as well as the view.

We'll only know if it's worked in five or six years' time if people are wearing The Shard T-shirts and if it's viewed as an image worthy of London – a 21st-century layer to a very old city. ●

*William Matthews is project architect at Renzo Piano Building Workshop*

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# PLATFORM VIEWS

To mark the opening of The View from The Shard, we look at the tallest viewing platforms around the world

KATHLEEN WHYMAN  
MANAGING EDITOR  
ATTRACTIONS MANAGEMENT

1st

## Canton Tower Guangzhou, China

Formerly known as Guangzhou TV Astronomical and Sightseeing Tower, the 600m (2,000ft)-high multi-purpose observation tower, Canton Tower, is located in the Haizhu District of Guangzhou, China.

The tower was topped out in 2009 and became operational on 29th September 2010 for the 2010 Asian Games. It's the tallest structure in China and the fourth-tallest free-standing structure in the world. The tower has the highest observation deck in the world, with a height of 488m (1,601ft) above ground level.



Canton Tower has the highest observation deck in the world, with a height of 488m (1,601ft) above ground level

PHOTO: (WWW.SHUTTERSTOCK.COM/CHU)



At a total height of 492m, the Shanghai World Financial Center has the second highest viewing platform at 474m

## Shanghai World Financial Center Shanghai, China

2nd

Opened in 2008, the 492m (1,614.2ft) skyscraper located in the Pudong district of Shanghai, China is a mixed-use skyscraper, consisting of offices, hotels, conference rooms and

observation decks as well as ground-floor shopping malls.

The Shanghai World Financial Center's observation deck offers views from 474m (1,555ft) above ground level.

3rd

### Burj Khalifa

Dubai, UAE

The world's tallest artificially-made structure is the 829.8 m (2,722ft)-tall Burj Khalifa in Dubai, UAE.

The building gained the official title of Tallest Building in the World at its opening on January 4th, 2010. The building has an outdoor observation deck on the 124th floor at 452.1m (1,483.27ft)-high.

**At 829.8m-high, Burj Khalifa has held the title of Tallest Building in the World since it opened in January 2010**



PHOTO: ISTOCK/PHOTO STOCK/WWW.SHUTTERSTOCK.COM

4th

### Tokyo Skytree

Tokyo, Japan

Tokyo Skytree is a broadcasting and observation tower with a restaurant in Sumida, Tokyo, Japan. At 634m (2,080 ft)-tall, it's the tallest tower in the world and the second tallest structure in the world after Burj Khalifa. Opened in May 2012, the tower has four observation decks, the highest at 451.2m (1,480ft)-high.



PHOTO: WWW.SHUTTERSTOCK.COM/VIDEOWART

**Tokyo Skytree's tallest of four observation deck is 451.2m-high**

### CN Tower

Toronto, Canada

5th

Toronto's CN Tower opened in 1976 and at 553m (1,815ft)-high, was the world's tallest building until Burj Dubai was built. In 2011, EdgeWalk opened – an extreme walk leading thrill-seekers around the outside ledge of the tower at 356m (1,168ft).



**EdgeWalk was introduced to the CN Tower in 2011 and enables visitors to walk around the tower's outside ledge**



PHOTO: ISTOCK/PHOTO STOCK/WWW.SHUTTERSTOCK.COM



## VIEWING PLATFORMS

6th

### Willis Tower

Chicago, USA

Willis Tower (formerly named Sears Tower) is a 108-storey, 1,451ft (442 m) skyscraper in Chicago, which was completed in 1973. At the time it was the tallest building in the world and is still the tallest building in the United States and the seventh-tallest freestanding structure in the world. It's observation deck is on the 103rd floor at 412.7m (1,354ft)-high.



### Sky100 Hong Kong, China

Sky100 is a 360-degree indoor observation deck on the 100th floor of the International Commerce Centre, Hong Kong. Since its opening in April 2011 it has been the highest observation deck in Hong Kong, at 393m (1,290ft) above sea level.

**Sky100's observation deck is the highest in Hong Kong at 393m (1,290ft) above sea level**

7th



### Taipei 101 Taipei, Taiwan

8th



PHOTO: WWW.SHUTTERSTOCK.COM/JERRY LAG

Taipei 101 was the world's tallest inhabited building at 509.2m (1,671 ft), including its spire, when it opened in 2004 until the opening of the Burj Khalifa in Dubai in 2010. Its outdoor observatory stands at 391.6m (1,285ft)-high on the 91st floor with an indoor observatory at 383.2m (1,257 ft) on the 89th floor.

**Taipei 101 has an outdoor observatory on the 91st floor and an indoor on the 89th**

### Petronas Towers Kuala Lumpur, Malaysia

9th

Also known as the Petronas Twin Towers, the twin skyscrapers are the landmark of Kuala Lumpur with nearby Kuala Lumpur Tower.

As well as an observatory on the 86th floor of tower two at 370m (1,214ft), there's a skybridge between the two towers on the 41st and 42nd floors at 170m (558ft).

**The Petronas Towers have a skybridge between the skyscrapers at 170m-high**



PHOTO: SHUTTERSTOCK.COM/SHANAN - DUONG

The tower's Skydeck viewing offer includes glass boxes that extend out 4.3ft (1.3m) from the building

PHOTO: SHUTTERSTOCK.COM/JERRY LAG



## The Empire State Building New York, USA

The American, Art Deco-style, cultural icon was built in 1931 and is named after New York's nickname – the Empire State.

The 102-storey skyscraper has a roof height of 1,250ft (381m), with a total height of 1,454ft (443.2m) including its antenna spire. The building has a viewing platform at 369m (1,210ft)-high plus

an observation deck on the 86th floor deck at 320m (1,050ft).

The Empire State Building is currently undergoing a \$550m (£342m, €419m) renovation, with \$120m (£75m, €91m) already spent in an effort to transform the building into a more energy efficient and eco-friendly structure.

The Empire State Building is considered to be an American cultural icon

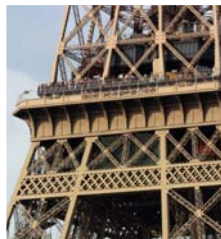
PHOTO © WWW.SHUTTERSTOCK.COM

## The Eiffel Tower Paris, France

18th

One of the world's most recognisable structures, the iron lattice tower is named after the engineer Gustave Eiffel, whose company designed and built the tower. Erected in 1889, the tower is the tallest structure in Paris and the most visited paid for monument in the world.

The tower is 320m (1,050 ft)-tall, with three levels for visitors, the highest of which is 279.11 m (916ft)-high. ●



The Eiffel Tower was originally the entrance arch to the 1889 World's Fair



PHOTO © WWW.SHUTTERSTOCK.COM



# BIG FISH

Guests can marvel at 100,000 marine animals, whizz down an adrenalin-primed waterslide, wade with rays or learn about conservation at Marine Life Park, the world's biggest oceanarium

KATHLEEN WHYMAN • MANAGING EDITOR • ATTRACTIONS MANAGEMENT

**A** hundred thousand marine animals of 800 species found a new home in November at Resort World Sentosa's Marine Life Park. Containing 60 million litres of water, the world's largest oceanarium offers its guests two main attractions – S.E.A. Aquarium™ and Adventure Cove Waterpark™ – giving guests the option of either getting wet or staying dry. These two options were

enjoyed by around 17,000 people in the first month of opening.

Adventure Cove Waterpark is the region's only waterpark with marine life elements, while the Southeast Asia Aquarium (S.E.A. Aquarium) showcases the world's largest viewing panel.

## S.E.A. AQUARIUM

Made up of 10 zones, the aquarium takes guests on an underwater voyage covering the vast oceans of the planet through 49 habitats. The journey follows the route taken by seafarers for millennia, where spices and silk were transported from Southeast Asia to the African sub-continent and beyond. The animals they sailed over and the habitats they passed are represented here in detail. Along the way, guests can see manta rays, hammerhead and zebra sharks, bottlenose

dolphins, the enormous goliath grouper, Napoleon wrasse and other marine creatures. Interspersed throughout the aquarium are 50 interpretive panels and more than 20 touchscreens providing information on the sea animals.

The centrepiece is the Open Ocean habitat. Seen through the world's largest viewing panel, at 36m (118ft)-wide by 8.3m (27ft)-tall, its aim is for guests to feel as if they're on the ocean floor.

## CONSERVATION

The habitat is flanked by an Ocean Dome, an all-round viewing area and the Ocean Restaurant, an outlet propagating sustainable seafood principles. Eleven Ocean Suites occupy the opposite site of the habitat, which gives an alternative to the traditional sea-view with an under-the-sea vista instead.

"S.E.A. Aquarium offers not only a stunning display of habitats, but also education and conservation programmes in which families and guests can participate," says senior curator Grant Willis. "Younger guests will be thrilled to know that we have specially-designed exhibits such as the Discovery Touch Pool, the Lens Aquarium and Floor Aquarium, to



Guests enjoy a rich underwater voyage

## OPENING HOURS AND TICKETING

**Monday – Sunday:** 10.00am – 6.00pm  
**One-day:** adult SG\$29 (£15, €18, US\$24; child/senior SG\$20 (£10, €12, US\$16). **Annual pass:** adult SG\$88; child/senior SG\$58



The 10 zones offer a journey through the vast oceans of the planet and 49 different habitats





Fun and education: Adventure Cove is the region's only water park that also features a variety of marine life elements



**"WE'VE GATHERED SOME OF THE MOST THRILLING  
WATERSLIDES, COMBINING THEM WITH EDUCATIONAL  
PROGRAMMES ON INSPIRING OCEAN CREATURES"**

- provide them with up-close encounters with our marine residents."

### ADVENTURE COVE WATERPARK

The aquatic adventure park aims to offer something for everyone. Six adrenaline-packed waterslides include Southeast Asia's first hydro-magnetic coaster, Riptide Rocket, that takes riders upwards. Or guests can snorkel above a colourful coral Rainbow Reef with 20,000 friendly fish or wade among hundreds of rays.

Shark feeding, immersive experiences and interaction programmes with Indo-Pacific bottlenose dolphins are to be introduced later in the year.

A 620m (2,000ft) lazy river called Adventure River meanders through 14 themed scenes of tropical jungles, grottos and a surround aquarium. Guests can also visit Bluwater Bay wave pool.

The waterpark's architecture tells the tale of ancient sea life civilisation. The design's revolved around three chapters of the Volcanic Archipelago, the Ancients and the coming of the New Age. Mystical winged-dolphins – Guardians of Legacy – greet visitors at the entrance and carvings, symbols and mystical creatures are featured throughout the park.

"Adventure Cove Waterpark will add a whole new dimension to water-based attractions in the region," says Edmond

Quah, director of park operations. "We've gathered some of the most exciting and thrilling waterslides and combined them with educational programmes on some of the ocean's most inspiring creatures.

Guests who interact with rays, for example, will learn more about the animal from an aquarist. We hope these experiences will move guests to take action to protect the oceans when they leave."

### CONSERVATION AND RESEARCH

Marine education, conservation and research are a large part of the park's remit and the attraction offers a range of engaging programmes designed to ►



Guests observe the Open Ocean Habitat through the world's largest viewing panel, which is 36m-wide and 8.3m tall

## Aquarium Zones

### **ZONE 1. STRAIT OF KARIMATA AND JAVA SEA**

The Strait of Karimata and Java Sea are popular destinations for viewing underwater caverns, wrecks, coral, sponges and diverse marine life. Shipwrecks often evolve into thriving marine habitats with sponges and corals colonising the wrecks, transforming them into a habitat for diverse marine life.

### **ZONE 2. STRAIT OF MALACCA AND ANDAMAN SEA**

The Strait of Malacca and the Andaman Sea contain a rich variety of habitats and fauna, from coral reefs to mangroves and seagrass beds.

Younger guests will be well engaged in this zone, as the aquarium floor allows them to view the habitat up-close. The lens aquariums are equipped with magnifying orbs that enable children to peer into the habitats with ease, coming face-to-face with species such as the frogfish, Mandarin fish and seahorses.

The Discovery Touch Pool teaches about sea stars, sea cucumbers and other fascinating marine invertebrates.

The Coral Garden is a cylindrical marine habitat showcasing corals and reef fishes in the Andaman region.

### **ZONE 3. BAY OF BENGAL AND LACCADIVE SEA**

The mangrove habitat showcases the large biological diversity found in mangrove ecosystems around the Bay of Bengal and the Laccadive Sea. Guests will journey through tidal fluctuations to witness how these rich ecosystems

support the coastal communities, by providing food, timber and protection for dwellers living along the sea coasts.

### **ZONE 4. OCEAN JOURNEY**

Ocean Journey brings guests deeper into the wonders of the open waters, with marine species from different depths of the vast oceans. The oceans have supported life on our blue planet for centuries, and long captured our imagination with its mystique.

### **ZONE 5. OPEN OCEAN**

The Ocean Gallery showcases the Aquarium centrepiece – the Open Ocean Habitat with a viewing panel that's 36m (118ft)-wide, 8.3m (27ft)-tall and 70cm (27.5in)-thick. Containing 18 million litres of water, the tank is home to more than 50,000 marine animals.

Adjacent to the Ocean Gallery is a seamount, housing the Ocean Dome. With a diameter of 6.2m (20ft), this large underwater acrylic dome allows guests to experience the thrill of watching giant manta rays gliding by above.

### **ZONE 6. ARABIAN GULF AND ARABIAN SEA**

As visitors return from their trip to the deep open oceans, they're greeted by the warm sunshine and beaches of the Arabian Gulf and Arabian Sea. These regions' warm, relatively shallow seas support a variety of ecosystems, including coral reefs, mangroves and shorelines, both sandy and rocky. This zone also houses the Soft Coral Garden, which is home to live corals.

### **ZONE 7. RED SEA**

The next stop in the journey is the Red Sea, where clear tropical waters are home to the planet's northernmost coral reefs. Visitors learn fun facts about human endeavours in deep-sea diving. Highlights here include the Gorgonian Reef, Reef Slope, and Fringing Reef.

### **ZONE 8. EAST AFRICA**

East Africa is among the continent's most biologically diverse areas, with freshwater lakes, coral reefs, seagrass beds, mangroves, lowland forests and savannah woodlands supporting rich plant and animal life. Guests learn how life forms in freshwater lake ecosystems have evolved to occupy unique niches and aren't found anywhere else on earth.

### **ZONE 9. SOUTH CHINA SEA**

The South China Sea, known for its rich biodiversity, is a large marine ecosystem with a tropical climate. Mangrove forests, seagrass beds, reef overhangs and soft-bottom communities are found here. This zone has a reef cave which younger guests can tunnel into to explore and meet huge moray eels that live within this mysterious habitat.

### **ZONE 10. SHARK SEAS**

Shark Seas has more than 200 sharks of 12 species, including nurse, bamboo shark and grey reef sharks. Guests can uncover common myths about these predators and learn more about their vital role in keeping the oceans healthy. The shark encounter programme begins later this year (separate charges apply).





From touching sea creatures to exploring seafood, there is much on offer for younger visitors

- deepen understanding of the oceans and their ecosystems. It has also set up a marine conservation initiative giving grants that support species and habitat conservation and research within Singapore and the Southeast Asia region.

As well as international research and conservation projects, the oceanarium rolls out programmes for students from pre-school to higher education, giving them the chance to interact with animals and learn from marine life specialists.

## RESORTS WORLD SENTOSA

Mr Tan Hee Teck, CEO of Resorts World Sentosa, says: "Resorts World Sentosa set out to be the integrated resort that would transform Singapore's tourism landscape, bring economic benefits to Singapore and contribute to the community. With unwavering commitment by all stakeholders, we are proud we did it."

"With the new Marine Life Park, we believe we'll help put Singapore in the pole position as the number one family destination in this region for years to come. This is the only integrated resort in the world that a visitor can spend over three full days in engaging and fun-filled activities. We have six hotels, a major convention centre, a great Maritime Museum, a world-renowned spa, and two mega attractions – Universal Studios Singapore and the Marine Life Park."



The waterpark houses six adrenalin-packed rides

## Waterslides and Attractions

### 1. Adventure River

At 620m (2,000ft), this is one of the region's longest lazy rivers. Guests are taken through 14 scenes, including vistas of tropical jungles, canyons, gardens and grotto caves. Highlights include a surround aquarium.

### 2. Big Bucket Treehouse

A giant bucket plus interactive water play elements including a cargo net climb, water squirts and waterslides.

### 3. Whirlpool Washout

A circular tube takes guests through revolutions, twists and turns, washing them out in an bowl of swirling water.

### 4. Spiral Washout

Guests are funnelled into a gravity-defying, oscillating tube ride.

### 5. Bluwater Bay

Waves of up to 2.2m (7ft)-high are generated at 15-minute intervals. Cabanas and deck chairs are also available.

### 6. Pipeline Plunge

A dark, enclosed tunnel takes riders past banked turns, twists and dips.

### 7. Tidal Twister

An open flume careens into a passage of multiple twists and swirls.

### 8. Riptide Rocket

Southeast Asia's first hydro-magnetic coaster. A two-person dinghy propels riders through uphill climbs and sudden drops in this 225m (738ft) ride.

### 9. Dueling Racer

A two-lane waterslide takes riders over dips and bumps.

### 10. Seahorse Hideaway

A shallow wading pool with water squirting from whimsical seahorses.

### 11. Rainbow Reef

Guests snorkel over colourful corals with 20,000 friendly fishes.

### 12. Splashworks

A free-fall platform cliff jumping, rope swing, balance beam and cargo net – above a 4m (13ft)-deep pool.

### 13. Immersive Programmes

Ray-feeding, shark programmes and interaction with bottlenose dolphins will be rolled out progressively.



The Adventure River features 14 scenes, including grotto caves



Environmental groups have opposed the export of dolphins. The Park says it has complied with all legal requirements

## Marine Controversy

**T**here has been some controversy related to the capture of wild dolphins from the Solomon Islands and in October 2012, Quezon City court issued a 72-hour temporary environment protection order to block the re-export of the dolphins to Marine Life Park, following a civil rights suit filed by animal rights groups.

A Resorts World Sentosa (RWS) spokesperson reiterated that the resort's acquisition of the 25 Indo-Pacific bottlenose dolphins adhere to regulations governed by the United Nations Environment Programme under the Convention on International Trade in Endangered Species of Wild Fauna and Flora. Another appeal was made and the exports to Singapore were temporarily held. When the hold expired, RWS

exported the dolphins while the court appeal was ongoing. On the flight to Singapore, the dolphin Wen Wen died.

In response to *Attractions Management's* enquiry into this, a spokesperson said: "At Marine Life Park, we take great responsibility in caring for all our marine animals, with a strong focus on the education and conservation of marine life ecosystems. We have reviewed our initial proposal and will not have whale sharks in the aquarium.

"On the move of the Indo-Pacific bottlenose dolphins to their permanent home in Singapore, Marine Life Park has complied with all international, Singapore and Philippines regulations. The Philippine court denied the extension filed for the Temporary Environment Protection Order, and there

was no prohibition for RWS to bring the dolphins to Marine Life Park.

"During the move, Wen Wen, a male dolphin estimated to be 10-years-old, died suddenly less than an hour before landing during the three-hour flight. Two marine mammal vets on the flight responded with emergency medical treatment. Laboratory tests conducted in Singapore and the United States concluded that Wen Wen had succumbed to an acute bacterial infection. There was, however, no evidence on the origins of the infection.

"Medical examinations prior to the transport, including full haematology and chemistry profiles as well as cytology and body examinations, indicated all animals were healthy prior to the move. The 24 dolphins at Marine Life Park have been released from quarantine. Based on the close observation and medical status of our dolphins, and the successful completion of the quarantine assessment, we believe the infection was an isolated incident." ●

**"WE TAKE GREAT RESPONSIBILITY IN CARING FOR ALL  
OUR MARINE ANIMALS, WITH A STRONG FOCUS ON THE  
CONSERVATION OF MARINE LIFE ECOSYSTEMS"**

# SOCIAL GATHERING

Real-time connections, increased loyalty and extending the offer are among the benefits of social media, but which platform is right for your attraction?

NIC RAY • MANAGING DIRECTOR • QUIRK LONDON

**B**usinesses no longer require extensive persuasion to appreciate the benefits of using social media. By contrast, it's widely recognised that such platforms have actually become an essential tool for engaging with the public. But just how do you go about selecting the right platform? The choice usually seems to come down to Facebook or Twitter, but these are by no means your only options.

Other platforms like Pinterest, Tout and Google+ are all worthy contenders to take on Facebook and Twitter. Not that this makes your first foray into the social realm any simpler. But luckily all it takes is a little forward thinking before just hopping on to Facebook. The first step is to clearly define your aims – what do you want to achieve by having a social media presence? Having a

Facebook page just because everyone else has one isn't a good enough reason. Next, you need to assess what each social platform can offer you, along with its strengths and weaknesses. Whichever platform best matches your business objectives is the place to start.

As an agency, we always advise brands that it's important to have one quality presence in social media. Creating a premium user experience on multiple social media platforms is next to impossible – unless your budget is particularly generous. So, as a starting point, invest in just one platform and manage it well. Once you've proven the success of "social", chances are that you'll be able to pitch for more budget and slowly begin to expand. To get you started, we've collated a brief round up of some current social media platforms.

## FACEBOOK

**Primary strength:** Building brand loyalty. Facebook is billed as the place to engage with customers, but it's always in danger of becoming a numbers game. Many brands become fixated on the number of Likes they're able to gain, instead of focusing on what they really should be striving to achieve – a sense of affection towards their brand and feeling of friendship with a consumer.

Churning out generic content may gain superficial interactions. However, the real gold is in getting people to communicate with your brand and creating an affinity towards your business.


One issue with Facebook is that it's primarily a closed hub, in the sense that it's up to the user to allow people (or brands) to see their updates and become part of their network. Or, in the instance that they're looking to become involved in a specific arena of discussion, they must already know what sources are likely to contain the desired content before they make the best use of Facebook's limited search functionality.

## TWITTER

**Primary strength:** Sharing news and extending reach. The shorter format of tweets (140 characters) means that relationship building is not Twitter's primary aim. Rather, it's the ideal medium to keep people up to date with news and



Businesses are advised to have at least one quality presence on social media – and focus on that before adding more outlets



Followers expect  
you to be active and  
up-to-date on your  
social media sites

special offers and share blog content. Twitter was designed for sharing and people will naturally spread your content for you – as long as it's worth sharing. This can amplify any activity that you're already doing, while also acting as a real-time news feed for your brand. For example, if bad weather means you may need to close early, you could use Twitter to keep people in the loop.

This is why many believe that Twitter has the edge over Facebook, in terms of relevancy for brands. As an open channel, you can reach more people, without insisting on any investment on their part (individuals can share or retweet your news without having to follow you).

However, an effective Twitter chan-

### TWITTER WAS DESIGNED FOR SHARING AND PEOPLE WILL NATURALLY SPREAD YOUR CONTENT – PROVIDED IT'S WORTH SHARING

nel requires a significant investment of time and commitment from any brand. Users will expect to be answered if they have a customer service issue or a general query, and not responding could be damaging to the brand's reputation.

#### TOUT

**Primary strength:** Creating video reviews. Tout is a lesser-known social

media platform that allows users to shoot 15-second video status updates via their smartphones or webcams (think of it as similar to Twitter, but with video). Through Tout's reply feature, users are also able to engage in conversations.

Tout has some amazing partnerships with brands already. The World Wrestling Entertainment organisation (WWE) featured some fan Touts dur-



Visitors may post video reviews of your attraction on Tout (top right), while images on Pinterest (bottom right) can highlight your creativity

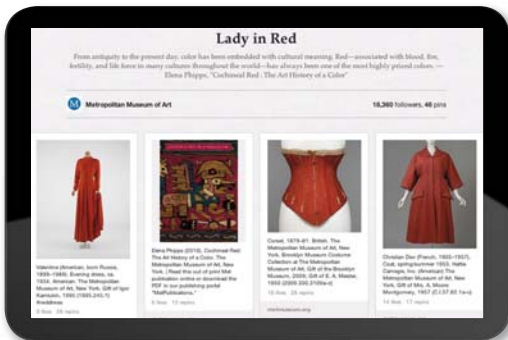
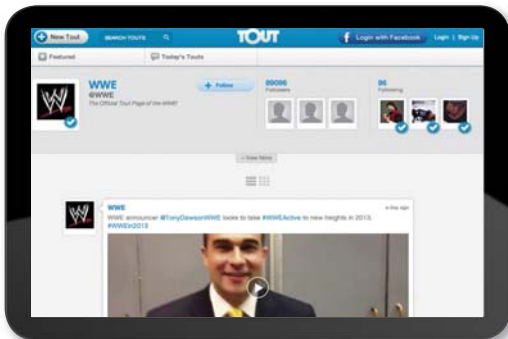
ing their tv broadcast and as a result the app skyrocketed in popularity. The media platform offers endless opportunities – individuals can be encouraged to create reviews while they visit your attraction and those reviews can then be repurposed into a bigger marketing plan or shared on YouTube.

While this would present some challenges in countries with slower internet connections or lower smart phone penetration, it's certainly one of the more innovative options to consider.

## PINTEREST

**Primary strength:** Creating a visual brand experience. Pinterest is a social scrapbooking site that lets brands showcase themselves in a visually creative way. However, according to the Etiquette of Pining, as defined by the users of Pinterest, this isn't the appropriate platform for self-promotion.

But this doesn't mean that brands



Foursquare can alert you to new arrivals, allowing you to give offers

can't get involved. The idea behind the platform is to showcase the things you love and to show appreciation for other people's creativity. This gives brands the ideal opportunity to get involved with a community and reward brand loyalty.

Repinning user-generated imagery from your attraction could produce a visually inspiring Pinterest presence. As well as this, it could also help create long-term brand advocates.

## FOURSQUARE

**Primary strength:** Real-time connection to users. Foursquare allows people to check in to places so that they can show their friends where they are and what they're doing. This is a great opportunity to reach people while they're actually

at your attraction and offer them extra value. For instance, Foursquare will let you offer vouchers or incentives to users who check in – linking your online activities to your real-time offline business.

## GOOGLE+

**Primary strength:** Search benefits. Google+ is one of those platforms that we all love to hate, mainly because it's just not quite Facebook.

Although its user numbers are questionable, and it's less familiar to us than other social platforms, it shouldn't be discounted as a medium.

As a platform, it's meant to be used alongside all the other Google products – especially search. Google is renowned for favouring its own assets within



Compared to Facebook, there are currently far fewer brands on Google+, allowing those using it to establish a greater presence

## TRY TO THINK BEYOND TWITTER AND FACEBOOK AND ALWAYS REMEMBER ONE KEY THING – SOCIAL MEDIA IS ABOUT BEING SOCIAL

search engine results pages meaning that Google+ is an extremely powerful tool to add to your search strategy. But this doesn't mean that it isn't social too. The platform is designed for sharing and will assist in amplifying blog posts, promoting news or even just sharing industry-related content.

What's more, there are far fewer brands on Google+, meaning that there's less competition and, therefore, ample

opportunity to become one of the platform's pioneering brands.

### SUMMARY

To wrap up, we feel it's important to point out that this list is by no means complete. There are almost too many platforms to mention – especially as social networks vary from country to country. When starting a social media strategy, it will be important to take

locale into account. For example, Twitter might perfectly meet your global business objectives. However, if targeting the under-25s in Russia, Vkontakte would be your better option.

Try to think beyond Facebook and Twitter and align your choice of platform with your business aims. Then, simply put in as much effort as you can afford, always remembering one key thing – social media is about being social.

As long as you offer value to your followers or fans and continually engage with them in an authentic manner, you won't go wrong. ●

*Nic Ray is the managing director of Quirk London, a digitally-focused agency of brave, curious minds*

# ECO FUTURE

CHILDREN ARE TAUGHT HOW TO BE GREEN BY FOUR INTERACTIVE, CARTOON CHARACTERS AT A NEW EXHIBITION IN ABU DHABI

KATHLEEN WHYMAN • MANAGING EDITOR • ATTRACTIONS MANAGEMENT

**C**reated to increase awareness of depleting global resources, climate change, over-consumption, sedentary lifestyles and sustainability options, Eco Future is a year-long, educational, family-orientated exhibition which gives visitors a glimpse into sustainable lifestyles.

Held at The Manarat Al Saadiyat on Saadiyat Island in Abu Dhabi, four interactive, futuristic characters – Ali, Moza, Yas and Sara – take visitors through six zones: Drinking; Eating, Enjoying; Moving; Building; and Future City.

Partially modelled on the Emirate's own long-term sustainability plans, the 900sq m (10,000sq ft) exhibit features a series of games that promote virtual decision-making about real-world issues. These issues include green building, healthy living, and moderate water and energy consumption.

Design solutions are collated on personalised eco tags, which reveal to visitors at the end of the exhibition their own Future City. Children aged between



Eco Future uses games to promote virtual decision making about real-world issues

**AT THE END OF THE EXHIBIT, CHILDREN RECEIVE A SCORE CARD AND REALISE THAT WHAT MAY APPEAR TO BE HEALTHY OR SUSTAINABLE, MIGHT NOT ACTUALLY BE**



Children are guided through the exhibition by interactive characters

eight- and 12-years-old are given a card with an embedded microchip at the start of the exhibit. They then visit each of the games, which encourage them to make decisions, such as what kind of materials to use for building and what meals to choose based on their sustainability.

At the end of the exhibit, which takes approximately 45 minutes to complete, the children receive a green score card, which helps them to realise that what may appear to be healthy or sustainable, might not actually be.

Opened in October 2012, Science & Media LLP delivered the exhibition

to Tourism Development & Investment Company (TDIC) in Abu Dhabi and Hypsos in Dubai executed the design.

"The design is created in a cartoon-style to appeal to the younger audience, but educational elements are a significant part of the exhibition," says Jan Muller, general manager at Hypsos in Dubai. "Interactivity is widely spread throughout the exhibition so that visitors can really take part. "As well as the funny characters, there's a lot of in-depth information and visitors can raise questions, so older guests enjoy the experience too." ●



The Enjoying zone explains what impact things people enjoy have on the environment, such as buying new clothes



# TODD SCHLIEMANN



When designing a new home for the Natural History Museum of Utah, Ennead partner Todd Schliemann decided to let the landscape take centre stage. He tells Magali Robathan how he approached the project

## How did you begin your career?

My father was an architect, so as a child I sat at his drafting table and used his equipment. I grew up in the 1960s, when architecture wasn't just about designing buildings; it was a way of life. Architecture was a complete experience – it was about furniture and plates, how you served your food and lived your life. It had a powerful influence on me.

It was also a time before computers; there were no video games, so in my spare time I made things.

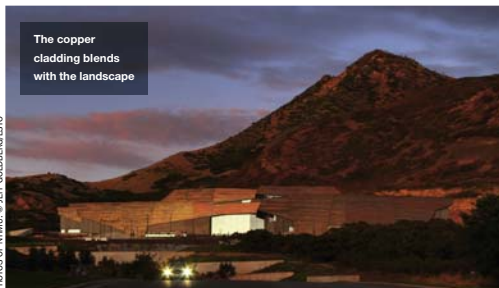
I studied architecture at Cornell University. After graduating, I taught architecture briefly and then came to New York in 1979. I've been here ever since. When I started working at the Polshek Partnership, there were only seven people working for the firm. Now it has a new name, I am one of the founding partners, and there are 170 people working for the firm. [It became Ennead Architects in 2010].

## What is your approach to architecture?

My philosophy is that buildings must serve people. Architecture is the mother of the arts. Its power is both intellectual and emotional. Not only must it incorporate sound construction and beautiful aesthetics, but it also has to touch people and make their lives better. There are many different ways to do this, because each project is different. The influences that you bring to bear on the buildings are all varied, but in the end architecture is a cultural statement. It has to be responsive to people.

## How did you get involved with the Natural History Museum of Utah?

I had designed the Rose Center for Earth and Space at the American Museum of Natural History in New York, so when the directors of the Natural History Museum of Utah started thinking about creating a new building, they sent us an invitation to



The copper cladding blends with the landscape

PHOTOS OF NHMU: © JEFF GOLDBERG/ISTO

interview. I went through several interviews, and they selected us.

## What were the aims of the new building?

The Natural History Museum of Utah was previously housed on the University of Utah's campus in an old library building, which was not at all suitable. The stacks that had contained books were storage for the Museum's collections, it wasn't air-conditioned, and there wasn't enough space to exhibit or tell stories or teach. So first and foremost, they wanted the right facility to house their collection, which is substantial. Then they wanted the



A vast atrium called the Canyon acts as a central public space and displays some of the Museum's collection

new museum to tell the story of the region and its people.

#### **What was your brief?**

I had complete freedom. Early on in the project, the museum's director, Sarah George, borrowed two jeeps from the Governor of Utah's office and we travelled around the state for a week. We explored the natural landscape, talked to many people and got a feel for Utah's character – so that we could make the building represent that.

After this trip, it became clear that Utah is all about the land and how people have engaged it for thousands of years – people have been trying to deal

with what is a very harsh landscape for a long time. The building had to be responsive to that; it had to feel like it belonged to the land, but it also had to serve the people and tell the story of Utah's natural history in a way that people could understand whether they were six or 60 years old, if they were a native American or an immigrant.

#### **Can you describe the building?**

It sits on the edge of culture and the edge of nature. It's in the foothills of the Wasatch Mountain Range, and is also on the edge of Salt Lake City.

Our goal was to create a building that would blend with nature and

appear to be like a rock outcropping. We used board-formed concrete at the base of the building, which is striated to appear as if it is a land form, one that has built up over time. We covered the exterior with copper which was donated by Kennecott Utah/Rio Tinto, whose mines are across the valley. On the roof we have planted areas, as if silt has fallen on the rock and plants have grown there. We think it blends quite nicely with the landscape.

Inside the building we created the Canyon, which is a 60-ft-high public space where people can gather and which can be used for events. It has an almost church-like scale to it and is ►



PHOTO © FRANK BROWNE



PHOTO © ARNOLD/ENNEAD ARCHITECTS

Todd Schliemann's other projects include The Standard hotel New York (both pictures)

very inspiring because of its height.

The Canyon sets the stage for the visitor experience. When you get people into a museum like this you want to make sure you've got them ready to learn. The emotionally-charged experience of getting into a space like the Canyon makes it more than just an intellectual exercise. It touches you as a human being first and then gets your mind working.

Then, of course, there are the galleries. Their sequence builds a narrative that encompasses many ideas from the region and explains them in a way that people can understand. On the opposite side of the building is the working part of the museum, the empirical part – the research and conservation laboratories, collection storage and administration.

The approach to the Museum is very

important to the experience of the building. You get out of your car, enter the building, ascend from a compressed entry lobby to the voluminous, light-filled Canyon and then traverse, through a series of switchbacks, to the top floor. The switchbacks, which ascend 90 feet, allow you to climb and not feel it's an exhausting experience.

Then of course you've also got the views from the roof and the Canyon looking out across all of the Salt Lake Valley to the lake, with the mountains in the background.

## What is your favourite part of the museum?

The Canyon is the most interesting space to me. It really is a spectacular volume of space. As you go through the museum you are always using the Canyon as a kind of way-finding refer-

ence. You know where you are because you can always see back into it.

## How important was it for the museum to be sustainable?

Everything we do is sustainable, whether the client asks us or not. In this case it was very important to them, but also if the building is going to be part of the land, it had better be responsive to the land in the long term.

The building has a solar array on the roof behind the planting. We have underground water retention tanks for controlling erosion on the site. The

## THE NATURAL HISTORY MUSEUM OF UTAH

The Natural History Museum of Utah's new \$102m home opened in Salt Lake City in November 2011. The Museum, which was established in 1963, is associated with the University of Utah, and was previously housed in the university's campus building.

The Museum is an active research institution, with a collection of more than 1.2 million specimens and objects. It features more than 41,300 sq ft of gallery

and education space, with the collections housed in new exhibitions designed by Ralph Appelbaum Associates. Nine dedicated, thematic exhibition galleries explore the Sky, Native Voices, Life, Land, First Peoples, Lake (Great Salt Lake), Past Worlds, Our Backyard and Utah's Futures.

Designed by Todd Schliemann of Ennead Architects, the new building was inspired by the region's natural landscape

of rock, soil, minerals and vegetation. By incorporating the use of recycled materials, local resources, photovoltaic energy, radiant cooling and the implementation of an extensive storm water catchment and management system, the Natural History Museum of Utah is seeking LEED Gold certification, which would make it one of only 18 buildings in Salt Lake City with that distinction.



The design of The Standard has won awards including a National Design Award from the Society of American Registered Architects

PHOTO © NICOLAS LOEBIG

building is built into the side of the hill – half of it is buried – which creates a flywheel effect, which keeps the building cool in the summer and warm in the winter. There are all kinds of high-performance mechanical systems that are running at peak efficiency.

We don't have many windows in the museum because natural light can damage the items on display, so we've been able to create a very tight exterior envelope. This means there's not a lot of air passage between inside and out, which allows the building to use less energy. With a nice tight wall the mechanical equipment doesn't have to work so hard to control the variations in temperature and humidity.

We're working at getting an LEED Gold certificate for the museum. We should find out within the next few months whether we've got it (you have to wait until the building has been operational for a year, so you can prove it does what you said it would do).

#### What reactions have you had to the museum's design?

It seems to be doing what we wanted. People get inspired when they see it.

#### Who do you admire in architecture?

Mostly dead architects, I'm afraid! Eero Saarinen, who was a Finnish/American architect in the 1950s and 1960s, is a strong influence. He did some rather amazing buildings, none of which looked the same. He was extraordinarily talented – his architecture is very thoughtful and beautiful.

#### Where do you get your inspiration?

It comes from whatever context I'm working in. The context in the case of the Natural History Museum of Utah was complex, and was about the land and the people. If I'm working in New York, it's about the city and how people engage it. The inspiration always comes from people and the context.

#### Where is your favourite place?

I love the sea. I have always sailed and it's a fabulous thing. The ground is always moving and you can go anywhere you want in the world – it's a highway to everywhere. There's something upside down about it; everything takes place underneath the surface.

#### What do you love about your job?

#### TODD SCHLIEMANN

Todd Schliemann is a founding partner and design principal in Ennead Architects. He studied architecture at Cornell University in 1979 and Urban Design at the Architectural Association in London.

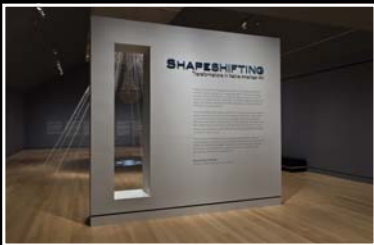
Schliemann's recent projects include the Rose Center for Earth and Space at the American Museum of Natural History in New York; Yerba Buena Gardens Center for the Arts Theater, San Francisco; The Standard, New York; The Natural History Museum of Utah; and Queens Borough Public Library, Flushing Regional Branch, New York.

I love to make things. You can think up an idea, and then make it. That's very rewarding. Sometimes it doesn't work out the way you want, and sometimes it does, but it's a joy to try.

#### And what do you enjoy the least?

Probably clients who don't want to understand the bigger ideas. Small thinkers. I suffer fools badly. ●





Modern palette: The Peabody Essex Museum wanted to show that Native American Art is also contemporary art

# COLLECTION POINTS

How does an idea about a collection evolve into a memorable, attention-grabbing exhibition? Three interpreters give advice on how to achieve it

KATHLEEN WHYMAN • MANAGING EDITOR • ATTRACTIONS MANAGEMENT

## JULIETTE FRITSCH

CHIEF OF EDUCATION AND INTERPRETATION  
PEABODY ESSEX MUSEUM, MASSACHUSETTS, USA



### WHAT IS EXHIBITION INTERPRETATION?

Interpretation is a process, not an outcome. The worst thing you can do is start a project by saying: "Right, we'll make three videos and an audio tour."

It's got to come out of what you're trying to communicate, what your visitors want to communicate and what the collection is. If you decide before you start that you're going to make a film, then it's topsy-turvy – the idea should come out when working through the stories.

### WHAT MAKES AN EXHIBITION?

An exhibition needs to have an element of the collection in it. There are places that call themselves museums, but instead of having objects that they've taken into care, they have interactives, which I find challenging.

An exhibition needs some kind of object – something that's been designated as special, that's been taken into care and studied and protected and put on display with other things to make some kind of statement or tell a story.

### HOW DO YOU START THE PROCESS?

We decide on the relationship between the key message and the objects on display. The other element is, who's the target audience? If the exhibition is for schoolchildren, you'll need more space for large groups, which will dictate case positions: for example, 360-degree cases so people can walk all the way round.

### HOW ARE EXHIBITIONS CREATED?

The interpretation manager works closely with the curator and designer. After a period of discussion and brainstorming, which can take months or even years for a big project, we start developing proposals for interpreting devices.

There are drawings, mock-ups, then the installation, which always results in seeing things that don't work and that need moving around and tweaking. Then you open it and see what happens.

### WHAT MAKES AN EXHIBITION GOOD?

When people come out and they're talking about it. And they remember it –

hopefully not because it was so dreadful it stuck in their mind.

### WHAT WAS ONE OF YOUR RECENT EXHIBITIONS?

Our Shapeshifting: Transformations in Native American Art exhibition, which had three key audiences: schoolchildren; people who are interested in contemporary art; and people who are interested in Native American art. Those three audiences have different needs and perceptions and understanding of the exhibition materials.

With this exhibition, there's an interpretive device all the way through, as we wanted visitors to be able to respond to the issues that were being discussed and have a dialogue with other visitors.

The key message is that Native American art is contemporary art, so we steered clear of established themes associated with Native American art, such as terracotta and wood, and gave it a very modern pallet. It's not traditional and was a pleasant surprise. That came about through many talks.

### WHAT ARE YOU CURRENTLY WORKING ON?

A very ambitious \$650m (£403m, €498m) reinstatement of the Peabody Essex museum, which we started working on last November.



Juliette Fritsch says the process from initial concept through to the finished exhibition can take months or even years

## ROGER MANN

CO-FOUNDER AND CREATIVE DIRECTOR  
CASSON MANN



### WHAT IS EXHIBITION INTERPRETATION?

The process of exhibition interpretation begins with the brief and involves understanding the story that needs to be told, the objects, themes or concepts involved, the space in which the exhibition will be held and the audience it aims to attract.

Once these essential elements are clear, we begin to play around with various design approaches, storytelling narratives and tools until we have a

design concept that's as compelling and as simple as possible.

### WHAT ELEMENTS MAKE UP AN EXHIBITION?

There are two kinds of exhibitions: the ones that are story-led and those that are collection-led. In the first instance, an idea, concept or theme forms the basis of the brief and objects are then sourced to realise it. The collection-led

approach takes its inspiration from a number of available objects, perhaps an inherited or bequeathed collection, and then a theme or story is devised to weave the objects together in a way that fits the museum's remit.

### HOW DO YOU CHOOSE THE DISPLAYS?

We only use interactive displays if we think that they add value and help to create a more engaging experience – we never rely on them to tell a story.

In an exhibition, media should deliver a completely different experience to what you can get at home – it should be bigger, more immersive.

### HOW DID YOU INTERPRET THE V&A'S HOLLYWOOD COSTUME EXHIBITION?

For Hollywood Costume, the brief from the V&A and guest curator Deborah Nadoolman Landis was clear and thorough. The challenge was to create an experience that was very different to other costume or couture exhibitions in that it goes beyond the clothes, character and actor.

The exhibition tells the story of costume design and its role in the creation of the real person and supporting the frame with silhouette, texture and colour.

The key element was this idea of getting people to look beyond the costume of their favourite film character and letting them see the details of that costume and how they contribute to that character's authenticity.

With Indiana Jones, what are the elements that make him recognisably Indy, that give us clues to his character and personality? The tools we draw on to tell this story go beyond the costume and accessories to the annotated screenplay and scripts, sketches, swatches, pictures, images and real conversations. ▶

**"MEDIA SHOULD DELIVER A COMPLETELY DIFFERENT EXPERIENCE TO WHAT YOU CAN GET AT HOME"**



The V&A's Hollywood Costume Exhibition tells the story of film character creation



A multi-layered approach to interpretation is key to telling the whole story

## ELIN SIMONSSON

INTERPRETATION DEVELOPER  
NATURAL HISTORY MUSEUM, LONDON, UK



### WHAT IS EXHIBITION INTERPRETATION?

It's telling stories and communicating a message alongside artefacts or collections in a way that's interesting and compelling, and in a way that works for that target audience. Multi-layered interpretation is important – we often use a combination of film, text, models, soundscapes, projections and interactivities.

There isn't just one way of interpreting an exhibition – it depends on who you're doing it for, the message you want to convey and the budget you have.

### WHAT ARE THE DIFFERENT TYPES OF EXHIBITION?

At the Natural History Museum (NHM), the essence is inspiring people about the natural world. To achieve this, we do many specimen-rich exhibitions that use

multi-layered approaches to interpretations. Our Age of the Dinosaur exhibition is animatronic-based, while Scott's Last Expedition has many artefacts, but uses the design, imagery, photography, projection and film to tell a complete story and communicate that in an exciting way.

### WHAT ARE THE ELEMENTS THAT MAKE UP AN EXHIBITION?

Physical considerations are the scale of the exhibition, whether it's permanent or temporary, and the budget. Then we think about who the exhibition is for and what we want to get across. How do we want people to react and feel when they're in it – what do we want people to walk away with? We use all these elements in suitable, creative and exciting ways, to make the content and artefacts come alive.

We know that if we make the exhibition immersive and play on people's senses, it becomes more real.

### WHAT'S MOST IMPORTANT?

It's all about the audience that it's for. Who is this for and how can we commu-

nicate this content in a way that works for them? For example, an exhibition about insects for families with young children is going to look very different to an exhibition about insects for adults.

### WHERE DO YOU GET YOUR INSPIRATION?

We look at other museums and talk to overseas contacts about what they do. Television is very good at telling stories in a similar way to how we communicate. We look at zoos, parks, and historic houses – anywhere that uses interpretation methods. It's very interesting and important to look outside your own field.

Theatre can also offer an inspiring way of how to do things. It's mainly about being aware of and open to new ideas.

### WHAT WAS ONE OF YOUR RECENT EXHIBITIONS?

With Scott's Last Expedition, which is now at the Canterbury Museum, Christchurch, New Zealand until June 2013, we thought beyond the obvious story and looked at it from a scientific expedition angle rather than purely a race to the pole. We looked at what's out there – archive footage, pictures by the expedition photographer, artefacts – and came up with the idea of interpreting everyday life in an area that represents the base camp in Antarctica today.

It tells the story of the expedition beyond the South Pole and we hoped people would feel surprised there were so many people involved and that it was actually a scientific expedition. Visitors get the sense of what it would have been like inside the hut in Antarctica. I'm really pleased with that design feature. ●



The Scott exhibition aims to give people a sense of how it really felt to be in Antarctica



### Martin Professional lights up the Liseberg Wheel

Liseberg amusement park in Gothenburg, Sweden, has installed dynamic lighting schemes from Martin Professional for an exciting nighttime experience. Martin Professional supplied its latest LED lighting for the park's new Liseberg Wheel attraction, a classic Ferris wheel ride. The legs, spokes and carriages were illuminated with three layered coloured LEDs.

**attractions-kit.net KEYWORD**

**martin**



### Techniflex 4D action seats for Hawaiian show

Techniflex's custom designed and engineered 4D action seating and special effects have been used in the newly repurposed IMAX theatre at the Polynesian Cultural Center on the Big Island of Hawaii. Techniflex installed 252 4D seats with motion bases and guests experienced stereo speakers mounted in the head rests, a motion tilt system, face air blasts and mist, low frequency emitters (butt kickers) and scent spray during the film about Hawaii's heritage.

**attractions-kit.net KEYWORD**

**techniflex**

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### Clay Paky lighting used in Ice Age Live

A variety of Clay Paky moving lights are being used in the Ice Age Live show adaptation of the 20th Century Fox Ice Age animation movies. Belgium-based, creative visual design practice, Painting With Light, designed the lighting which uses Clay Paky models and Alpha 1500 series to help the process of matching and texturing the ice and the props. A trussing grid installed above the ice provides positions for most of the lighting, as well as flying facilities for performers and props.



**attractions-kit.net KEYWORD**

**clay paky**



**attractions-kit.net KEYWORD**

**global immersion**

### Global Immersion supplies giant flat screen

High performance immersive theatre specialist Global Immersion, now part of Electrosonic, has installed a versatile digital Giant Screen Cinema system, GSX, in the Peoria Riverfront Museum, Illinois, USA. The screen measures 70ft (21.3m) by 52ft (15.8m) with 200 theatre seats. The features will enable the museum to play traditional Giant Screen films, streamed, alternative, live and online media in multiple aspect ratios and file formats (including Digital Cinema Initiative-encrypted films). The system is capable of playing content at up to 60 frames per second and in 12-bit colour depth.

## Special effects



### AV by Electrosonic brings Dolphin Tales to life

Electrosonic designed and supplied the audio and video equipment for a theatrical production starring bottlenose dolphins at the Georgia Aquarium in Atlanta, USA. It involved a combination of pre-recorded audio and video with live performance mixed in. Seven DLP projectors were also used. Dolphin trainers used waterproof VHF wireless mics, which are mixed live with music.

**attractions-kit.net** KEYWORD

**electrosonic**



### Robe's small and light Robin aims for big effects

Czech Republic-based Robe Lighting has created the Robin 100 LED Beam – a small and light effects lighting tool. Weighing four kgs, it is designed to be very bright, with RGBW technology and fast pan and tilt movement. The LEDs are controllable in three zones – top half, bottom half, and middle – for producing special effects, zone strobing, colour chasing and others. It has a beam angle of seven degrees for high-impact concentrated effects.

**attractions-kit.net** KEYWORD

**robe**



### Le Maitre's new pyrotechnics to 'delight audiences'

Le Maitre has added a range of new products to its ProStage II professional pyrotechnics. Falling Star is a bright star, available in ten different colour versions, that falls 30ft. Ice Gerb is a spray of silver sparks with a bright white flame, projecting up to 8ft-high. Saxon is a 20ft spray of projected rotating silver sparks, creating a Catherine Wheel-style effect. Gold Glitter Waterfall is a stream of gold glittering stars falling 16ft that lasts for 12 seconds and Flashpots are bright coloured flashes in red,

green or white with rolling smoke and flames. Le Maitre has also introduced an Electric Fault Simulator, producing a small flash and a spray of directional silver sparks to 10ft. Sally Dobinson, Le Maitre marketing manager, said: "Our strategy has always been to lead the way in pyrotechnology advancements. The PSII range will provide completely new effects to delight audiences with."

**attractions-kit.net** KEYWORD

**Le Maitre**



**attractions-kit.net** KEYWORD

**dbn**

### Games Time is a spectacular for dbn

UK-based lighting, rigging and visuals rental company dbn designed and supplied a large ground support system for the Games Time outdoor stage spectacular. The show, produced by Walk The Plank and Déda, was a mixed-media performance combining music, dance, video, lighting and pyrotechnics. Four teams – red, blue, green and yellow – wore carnival style costumes designed and made by Mahogany. dbn designed the truss and lighting and used a new Slick ground support system for the series of shows, which was built as a three-sided trapezoidal shape, supported by six 12m-tall legs.





## Projection Studio creates Son et Lumière for USA

UK-based Projection Studio produced an exclusive Son et Lumière show celebrating the 50th anniversary of the Hopkins Centre for the Arts in New Hampshire, USA. The show Five Windows was based around large format projections highlighting the history, achievements and impact of the Hopkins Centre at Dartmouth College, which also houses the Ivy League College's drama, music, film and studio arts departments. Giant images were projected on to the front façade with historical, future and dance themes.

**attractions-kit.net KEYWORD** projection studio



**attractions-kit.net KEYWORD**  
fountainworks

## A night and day display by Fountain Works

Fountain Works has installed a 500sq m fountains system with music and LED lighting at Butlins Skegness resort. The display is designed with no standing water to create a safe and secure play environment and is set to open at Easter 2013. The fountain alternates between an interactive splash pad for daytime play and a musical, lit fountain display using Fountain Works' custom music integration software for night time. The fountain system uses flush mounted multi-directional nozzles creating swirls of water, jumping jets, water switches and jets that erupt with thousands of litres of water. ●

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# STORY FORMATS

Astronomy, nature and sci-fi all have stories that are brought to life through fulldome film, interactive theatre and 3D, 4D and 5D formats

KATHLEEN WHYMAN • MANAGING EDITOR • ATTRACTIONS MANAGEMENT



Computer-generated imagery recreates the mysteries of the ice age, including majestic woolly mammoths



New photography techniques are used to demonstrate the Great White's speed, power and beauty



## GIANT SCREEN FILMS

**G**iant Screen Films (GSF) has just released *Titans of the Ice Age 3D*, with *Great White Shark 3D* to be released on May 25th.

*Titans of the Ice Age 3D* transports viewers to the frozen landscapes of North America, Europe and Asia, 10,000 years before modern civilization. Computer-generated imagery brings to life sabre-toothed cats, giant sloths and iconic mammoths – the giants that were both feared and hunted by prehistoric humans – in an ancient world of ice when humans fought for survival alongside majestic, woolly beasts.

GSF's founder and president, Don Kempf, was inspired to make *Titans* after seeing how enthralled his sons were with the animated *Ice Age* movies. Science centres and museums are particularly interested in the topic, as this period in history, when humans shared the Earth with mammoths, is often misunderstood.

Created for family audiences of all ages, the film aims to challenge the imaginations of children and adults alike and offer an inspiring perspective on the history of our world.

*Great White Shark 3D* explores the Great White's place in our imaginations, our unfounded fears of this majestic predator and the vital role it has held in the oceanic ecosystems since the dawn of the dinosaurs.

The film takes audiences to three key shark aggregation points around the world, from New Zealand's Stewart Island, where a newly discovered healthy

population of Great Whites have had little contact with people, to Mexico's Guadalupe Island, where Great Whites troll crystal clear waters and researchers conduct critical tagging operations to monitor movement and behaviour. Viewers are then taken to South Africa, famous for its breaching sharks, to illustrate the Great White's speed, power and beauty using new techniques in slow motion 3D photography.

Both films are available in 40-minute versions for Imax and Imax 3D theatres, and in 20 and 40-minute versions for digital 3D and 4D theatres.

Created for giant-screen and immersive theatres in museums, science centres, zoos and aquariums, GSF co-produced *Titans of the Ice Age* with the Field Museum of Natural History in Chicago and the Page Museum in Los Angeles. Co-producers on *Great White Shark* are UK-based Yes/No Productions.

GSF's sister company, D3D Cinema, is currently upgrading the National Museum of the United States Air Force's Giant Screen Theatre to 3D projection and greater programming flexibility.

D3D is integrating a state-of-the-art digital 3D system featuring dual Barco 4K projectors, Qube's Xi integrated media blocks, MasterImage 3D and a premium 7.1 surround system from QSC Audio. In addition to supporting higher frame rates, the system will be capable of true 4K-3D playback at bitrates that far exceed industry standards for conventional cinema. The theatre will also feature state-of-the-art accessibility technology by Doremi, including hearing impaired and visually impaired audio devices and the CaptiView personal closed captioning system.



## THE GODDARD GROUP

**G**uests interact with digitally-created beluga whales at The Goddard Group's latest interactive theatre show, *Do You Speak Beluga?*. Opened in January at theme park Lotte World in Seoul, Korea, the experience immerses guests in an animated undersea environment.

The story follows a family of beluga whales who are holidaying at Lotte World. Guests can ask the belugas any-

thing they've ever wanted to know about them and, in turn, are asked questions by the belugas about human characteristics, habits and traditions.

"Not only will visitors learn about a unique species, they'll also have to reflect upon things about themselves that they've probably never thought about from an outsider's perspective," explains Taylor Jeffs, The Goddard Group's director of design.

The experience begins in Aqua Plaza, Lotte World's newest themed zone. Guests queue through an undersea grotto before moving into the main theatre where they meet the family of

**Goddard Group and Lotte World discussed featuring dinosaurs or ghosts before deciding on belugas**

belugas. There's bench seating for adults and floor seating at the front for younger guests during the 15-minute experience.

The Goddard Group provided the concept and schematic design services and worked with the Lotte team to create the attraction's layout, architectural design, graphic identity and character design. Korea-based Rayglyph provided the show's technology and content.

## ALBEDO FULLDOME

**T**he basic concepts of the relationship between Earth, the moon and the sun are presented in *Moles* – an animated planetarium show for children aged between four and eight.

*Moles* integrates traditional storytelling with digital media to entertain children and awaken their interest in astronomy and nature. By following the adventures of a young mole named Plato and his friends, children learn basic concepts about science, and astronomy in particular, while having fun.

Plato lives deep underground in a dark burrow and is fascinated by the light that penetrates the entrance to his home half



of the time. One day he finally gets to see the great outdoors and discovers day and night and the sun, moon and stars.

The film explains in an easy and understandable way what light pollution is and why it's difficult to see the stars in the city. Children are encouraged to question everything and proactively find out the answers to any questions they might have. Show content includes: the role of Earth's rotation and how it creates night and day; properties of motion in space; properties of solar system objects; motions and forces; and gravity.

Inspired by the Greek philosopher Plato's *Myth of the Cave*, the show was co-produced with Mediúscula. Available in English, Spanish, French, Korean, Japanese and Turkish, there are three versions of the film lasting 17 minutes, 18 minutes or 35 minutes.



# GO DIGITAL

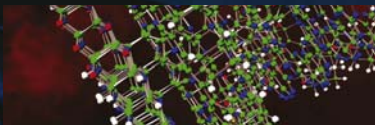
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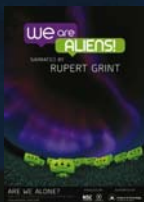
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## MEDIAMATION, INC

Guests are sent soaring, rocking and rolling, with their feet dangling, at twice the usual motion range and speed in MediaMation's new Ultra X4DR® seats. Additional seat effects include atmospheric effects, such as seat transducers, back pokers, neck and leg ticklers, water spray, wind, snow, fog and scent.

The seats were recently installed for the first time in a 36-seat 4D motion effects theatre located in Illinois. As well as the seats, MediaMation supplied the

3D projection system, surround sound audio system, show control and installation. "An unusual element to this theatre is an automatic stair lift that brings guests up and down from the seats," says MediaMation's president Alison Jamele. "The seats start up in a higher



Universal Kinematics technology aids the X4DR seats' movements

position so we designed a lift to allow people to step up and down."

MediaMation's ShowFlow® software is used to integrate the projection, audio, movement, effects and lighting. "Using pneumatics to move the seats is more cost effective and cleaner because you don't have to worry about messy hydraulics or expensive electrical to power the seats," says Jamele.

MediaMation is currently working on two 4D theatres at Legoland Discovery Centres for Merlin Entertainment in New York and Canada; a government-sponsored science centre in Mexico; and a 4D theatre for Museo de Cera, in Mexico City. Suppliers include Panasonic, Severtson, Peavey and Crown.

## NSC CREATIVE

NSC Creative has three new full-dome 3D projects in its portfolio: *Astronaut 3D*, narrated by Ewan McGregor; *We Are Aliens! 3D*, narrated by Rupert Grint; and *Mission Europa 3D*.

*Astronaut* covers the themes of micro-gravity, human biology, space hazards, living in space and astronaut training. Guests experience a rocket launch and explore the worlds of inner and outer space, from floating around the International Space Station to manoeuvring

through microscopic regions of the human body. Narrated by actor Ewan McGregor, the film lasts 23 minutes and is suitable for viewers over five-years-old.

NSC Creative originally produced the film in 2006. Due to its popularity, and a growing number of 3D full-dome systems, in 2011 NSC Creative researched the viability of updating the show. "There's a distinct lack of full-dome 3D shows avail-

able to planetariums that have installed these new systems, or are considering doing so," explains Rebecca Simpson, production assistant at NSC Creative.

"Unlike 3D in cinemas, the process of converting full-dome shows into full-dome 3D isn't as simple as making the changes in post-production."

*We Are Aliens! 3D* is the newest full-dome show produced by NSC Creative. Viewers are taken on an epic journey from the most extreme environments on Earth to similarly extreme environments elsewhere in our solar system, asking the question, are we alone?

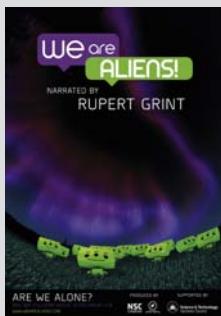
Supported by the Science and Technology Facilities Council (STFC) in the UK, the central motivating factor in creating the show was to take a new look at the search for life and what in fact constitutes life. Narrated by Harry Potter star Rupert Grint, the 25-minute show is now available to planetariums, fixed or portable around the world.

NSC's six-minute, 3D film *Mission Europa* is a feature of the UK's National Space Centre's simulator ride. Positioned within Tranquillity Base, it has recently been made available to license in other institutions. The experience can be adapted to create a 5D motion ride with icy blasts of air as guests arrive on Europa in the ride.

**"THERE'S A DISTINCT LACK OF FULLDOME 3D SHOWS AVAILABLE TO PLANETARIUMS THAT HAVE INSTALLED THESE NEW SYSTEMS OR ARE CONSIDERING DOING SO"**



Viewers get closer to space exploration in NSC's latest 3D film offers



## SALLY CORPORATION

**G**uests battle alongside superheroes in Justice League: Alien Invasion 3D. Created by Sally Corporation, the interactive dark ride opened last September at Warner Bros Movie World, on Australia's Gold Coast.

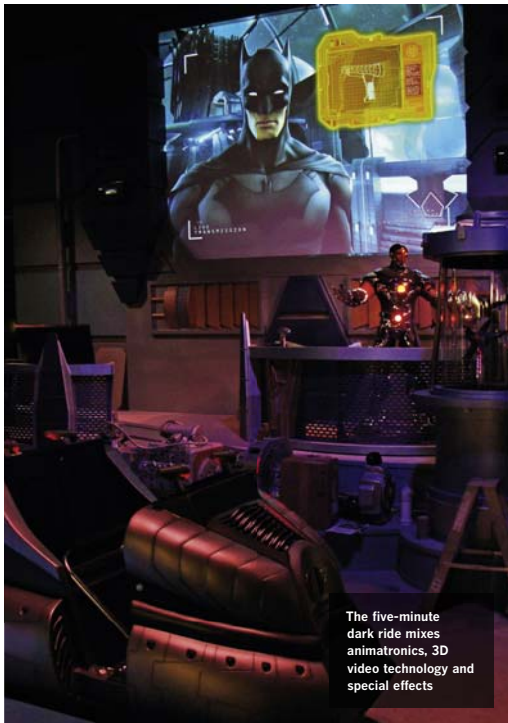
The US\$9m (£5.6m, €6.9m) dark ride is a re-purposing of the park's existing Batman simulator experience. In the story, Earth is under attack by the evil Starro the Conqueror. The members of the Justice League are dramatically outnumbered, so ask for the audience's help to save the Earth from destruction.

Featuring a mix of animatronics, 3D video technology and special effects, the five-minute ride incorporates eight 3D screens, 20 custom vehicles equipped with special laser optical blasters, a dramatic custom musical score and numerous animatronic citizens who riders must fight to save from the alien spores' evil mind control. The ride culminates in a dramatic struggle between Superman and the evil villain, in which riders play a decisive role.

Sally's senior designer, Rich Hill, directed the team from the first pencil sketches to the installation and opening. "We had to create new CG models for Superman, Batman, Wonder Woman, Supergirl, Flash, Cyborg and Green Lantern, as DC Comics had just released the New 52," he says. "Another challenge was blending the large projected media screen images so they matched the animatronics, physical sets and scenery. These had to be just right so riders feel they're actually fighting in the city streets alongside the Justice League, whether they're in front of a screen or travelling through the 3D spaces.

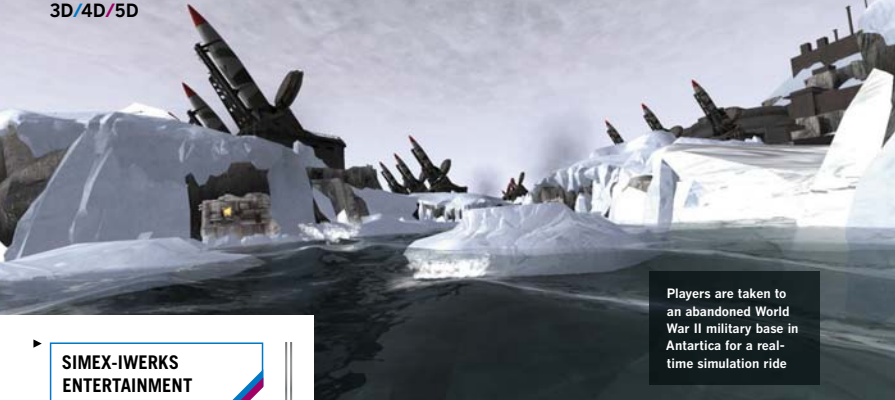
"We overcame the challenges by assembling our own superhero team," he continues. "We fabricated a lot of the ride, but also worked with Wyatt Design Group, Threshold Animation, Sculpt Studios, The Wurst Brothers, Bertazzon, Bose, RealD, Alterface, Techni-Lux and International Film and Digital Workshops.

**The audience helps superheroes fight against DC's feared villain Starro the Conqueror**



**The five-minute dark ride mixes animatronics, 3D video technology and special effects**





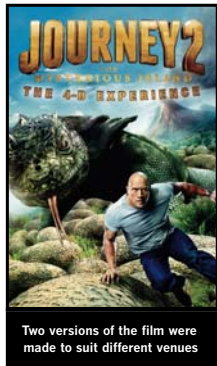
Players are taken to an abandoned World War II military base in Antarctica for a real-time simulation ride

## SIMEX-IWERKS ENTERTAINMENT

**B**ased on the film *Journey 2: The Mysterious Island*, Simex-Iwerks has created a 12-minute 4D film and a five-minute 3D ride experience, during which guests fly through a tornado, encounter giant lizards, discover the lost city of Atlantis and pilot Captain Nemo's submarine.

The family films are aimed at large theme parks, zoos, aquariums and science centres and the 4D elements include wind, water, scent, seat poke, leg ticklers and snow.

Simex-Iwerks' biggest challenge was cutting a feature-length film down to five or 10 minutes, but the creative and post production teams kept the storyline consistent and used scenes that lend themselves to 4D elements and effects.



Two versions of the film were made to suit different venues

## TRANS-FORCE

**T**rans-Force will soon be releasing *Polar Odyssey*, an interactive game based on real-time simulation and designed for its 5D interactive attraction Orion.

*Polar Odyssey* takes players to an abandoned World War II military base for a peaceful mission devoted to eliminating spilt chemical reagents. However, the mission turns into a dangerous adventure full of surprises. The theme was inspired by a historical story about a German ship, *Swabia*, that made a scientific expedition to Antarctica in 1938. Legend claims that this was a cover story and that their real mission was to set up a secret military base.

Aimed at children and teenagers, the six-minute film is designed for attrac-

tions parks, science centres and science and technology museums.

Orion is designed to resemble a space shuttle and incorporates a 2m x 1.5 m (6.5ft x 5ft) screen with a 3D system, motion platform and interactivity. The film uses high quality, 3D, real-time graphics, so that the image can react to players' actions. All four seats are equipped with joysticks that allow visitors to control the simulator and different objects, take pictures and answer quiz questions. The attraction is equipped with Dolby Surround sound system and a 3DOF motion platform with vibration effect so the cabin can closely follow the ship's movements.

A new engine and new shading technology enabled the team at Trans-Force to create more detailed images. The company develops the hardware and software and makes all programs in-house. Orion is installed in the US, China, India, Malaysia and Spain. ●



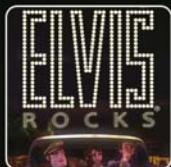
*Polar Odyssey's* aim is for the players to feel as though they're the heroes of the game

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# MEDIA

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## THE JUICE

**L**ittle Ants Adventure is a 4D attraction story about adventure and friendship and is suitable for family audiences. In the 10-minute attraction film and five-minute ride film, which includes wind, water and seat movements, the audience meets friends Qin and Ding as they struggle to learn to fly together.

### QIN AND DING GO ON A ROLLERCOASTER JOURNEY ENCOUNTERING NATURE AT ITS BEST

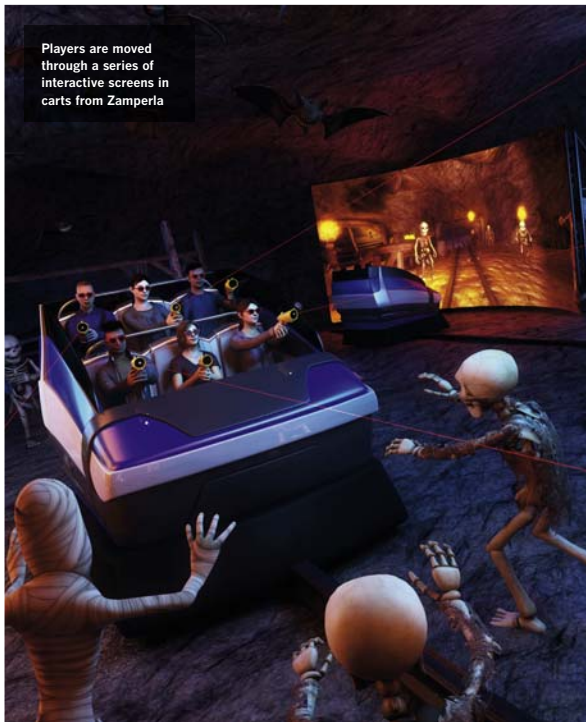
hurtle through the forest on a leaf, swim through the river on a rollercoaster journey encountering nature at it's best and try to learn to fly before being eaten by a toad or blackbird.

The Juice is the exclusive distribution partner for the studio and worked with Betop Multimedia Technology Co Ltd on the project.



The Little Ants enjoy friendship and adventure

Players are moved through a series of interactive screens in carts from Zamperla



## TRIOTECH

**T**riotech has launched interactive dark ride iDR. Players are immersed in a universe that combines interactive technology with thrills and speed in a cart crafted by Zamperla for the attraction. Designed specifically for group game play, the iDR physically moves players through a series of interactive stations with large-scale curved screens in competition for the highest score during motion ride adventures produced by Triotech.

The motion and targeting systems are synchronised to communicate with a

central show control system that tracks the scores of each player. Riders experience the full spectrum of effects and movements, from subtle motions to intense rotations, all orchestrated in tandem with the content displayed on the immersive screens. The carts hold six players at a time and the ride has an hourly capacity of 700 people and a usable space of 650sq m (7,000sq ft).

Triotech is also working on a 40-seat XD Dark Ride for Korean theme park Lotte World, which Triotech believes is the largest installation of a dark ride to date. The 7D technology attraction incorporates a large multi-player attraction with an interactive gaming element, combined with motion system and dimensional effects. ●





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## WATERPARKS

# ride the **wave**

With waterpark operators gearing up for the Spring 2013 season just around the corner, we take a look at some of the new rides lifting the bar in the waterpark industry this year

JENNIFER HARBOTTLE • JOURNALIST

### New water attractions for Center Parcs

Center Parcs has debuted two new water attractions at its Elveden Forest holiday village. With an investment of £4m (€4.75m, \$6.3m), its Tropical Cyclone™ water ride has been created by a partnership between Holder Mathias, Water Technologies International, Inc and SDC Builders Limited. It was officially opened in November by Paralympic swimming star Ellie Simmonds.

Tropical Cyclone™ combines a Behemoth Bowl™ and a Tornado™ in one ride – a technology that is the first of its kind. The ride consists of four-person rafts, which twist, spiral and zigzag at speeds of up to 30mph, reaching

zero gravity before returning to the main pool. For Holder Mathias, the installation proved challenging for various reasons.

"As well as exploring new technologies, the challenge was that the existing pool remained open throughout, while construction went on next to it," explains senior partner Peter Gamble, whose company has also provided water-based attractions for both Whinell Forest and Woburn Forest Center Parc villages.

Elveden Forest has also just opened a heated, aerated and illuminated Lagoon Pool. Based on the concept of a Mexican Cenote, the family-orientated pool includes plant-covered rock walls.



Ellie Simmonds opened the new ride, which offers twists, spirals and zigzags



The six-person Mammoth water coaster can carry a thousand guests per hour

## IAAPA Award for ProSlide

IAAPA 2012 was quite a show for Proslide. Its HydroMagnetic Mammoth™ water coaster took the award for Best New Water Ride Product, as well as an Industry Impact Award, which recognises a product that will have the most

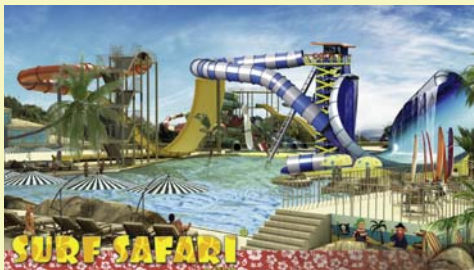
impact on the industry. The six-person Mammoth was recognised for the fact it enables a face-to-face water ride experience and can also accommodate large capacities of more than a thousand guests an hour.

## Get ready for a Surf Safari

Polin has revealed its brand new waterslide called Surf Safari for the 2013 season. The high-capacity waterslide attraction features a 40-degree sloped entrance and a streamlined, parabolic bowl-shaped design, which results in four-person

rafts zooming through twists and turns as well as unexpected changes in momentum. Its specially engineered slide gives riders a longer ride.

Surf safari's first installation will be at the upcoming Cowabunga Bay Waterpark in Las Vegas, USA.



Surf Safari is a high capacity waterslide experience using four-person rafts

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## Six Flags goes big in 2013

Six Flags New England waterpark, Hurricane Harbor, is adding a 65ft (20m)-tall waterslide featuring six-drop hatch slides to its attraction. Bonzai Pipelines will join the park's existing line-up of 27 slides.

Six Flags America in Maryland has purchased the same ride for its park, following the success of Apocalypse – its 10-storey stand-up coaster introduced in 2012.

Bonzai Pipelines is a six-storey structure that features six looping slides set atop a 65ft (20m) tower. With clear launching tubes, spectators will also feel part of the action. Both rides open in Spring 2013.

At Six Flags White Water, a new Typhoon Twister ride will debut in late spring. The attraction will see riders enclosed in a five-storey drop before shooting out into a 67ft (20.4m) bowl.

For its La Ronde park in Montreal, Six Flags has invested in an Aqua Twist ride, manufactured by Mack. The circular attraction is comprised of nine boats seating up to six passengers. Before the ride starts, the floor disappears and is covered with water, allowing each boat to flow and rotate. Boats carry six water pistols so passengers can interact with guests on the other boats and with spectators.

## Thrills and spills at Schlitterbahn

Claiming it will be the world's most extreme waterslide ever built, Schlitterbahn Kansas City Waterpark will open its new four-person Master Blaster water-coaster uphill waterslide next season. As well as being the tallest and fastest, its patented technology is aiming to be the highest and fastest slide, a record currently held by Insano at Beach Park, Fortaleza, Brazil. The park isn't announcing the dimensions of the ride until it opens in Summer 2013.

## 2013 set to be a blast for Whitewater

There's no slowing down for Whitewater this year. In early 2013, Donetsk waterpark in the Ukraine will feature a Whitewater Triple Charger™ waterslide. The Triple Charger allows riders to race each other through a series of twists and turns. Its configuration offers increased throughput, with a tight compact footprint.

At the much anticipated Wet 'n'

Wild Sydney, Whitewater is supplying a Whizzard™ Twist – a high-speed racer that sends riders through enclosed

AquaTubes that twist, then serpentine alongside each other, transitioning into the traditional

side-by-side multi-lane configuration.

Meanwhile, at Dubai's

Atlantis The Palm, Whitewater is installing a Family Anaconda™ ride, due to open in October 2013.



The Whizzard sends riders along enclosed tubes at high speed

## Santorini Water Fantasy launches in spring

Santorini Water Fantasy, near Hua Hin in Thailand, is gearing up for its Spring 2013 opening with some exciting new water rides. As part of its US\$3.25m (£2m, €2.4) investment, the park's developers Pena House Public Co Ltd is purchasing four major water rides from Polin. These include a 15m (50ft)-high King Cobra slide, a Looping Rocket

drop ride as well as a Space Shuttle waterslide and a Windigo multi-racer lane mat ride.

Santorini Water Fantasy is being built alongside the existing eight-acre Santorini amusement park. The four-acre waterpark will be part of a larger expansion of the existing facilities that will include a three-star, low-rise resort.



The Santorini Water Fantasy near Hua Hin will unveil four major new water rides



## Rain dance

Brand new from Arihant is the Aqua Disc attraction. Aqua Disc is shaped like a spaceship, which guests enter in order to dance under disco lights, fountains, fog effects and water jets.

Holding up to 130 people on the dance floor at one time, this music-based water attraction is an alternative to traditional waterslides.

**The Aqua Disc is a music-based water attraction that features disco lights, fog effects and water jets**

## IN AT THE DEEP END

Chris Warhurst, general manager of Wet 'n' Wild Sydney tells us about the new waterpark

### Why was Sydney chosen as the location for Village Roadshow's new waterpark?

Sydney is a world-class city that deserves more world-class entertainment. The new Wet'n'Wild Sydney will deliver that, with 43 slides and attractions. Our aim is to make it among the world's best waterparks.

### What stage is the park at now?

The NSW Government zoned the site for a leisure development and requested proposals via a public tender. Village Roadshow won it and we've progressed from tender, through public consultation and approval into construction.

### Tell us about the new waterpark

Wet'n'Wild Sydney will be a contemporary, world-class attraction located 30kms from Sydney's central business district. Covering 27 hectares, it'll have brand new attractions, wonderful eating facilities and lush landscaping around our central feature – the largest wave pool in Australia. We're creating a beach that's within reach for all of Sydney.

### How many rides will you be purchasing for Wet'n'Wild Sydney?

A total of 43 slides and attractions have been purchased and designed to



**Warhurst says Wet'n'Wild will deliver a world-class waterpark to Sydney**

build, including four Master Blasters, Boomerango, Constrictor, Rattler, Double Bowl and a half-kilometre adventure river. We've been working closely with ProSlide and WhiteWater in order to procure the best slide products from both of these companies.

Sydney will have the world's tallest double Sky Coaster, the world's first Aqua Loop and Whizzard combination, Australia's first Dark Tornado, Tornado Wave and Triple Tantrum Alley.

We'll have Australia's first Flow Barrel and, of course, Australia's largest wave pool. The park will also have dedicated zones for 0- to 9-year-olds, called Wet'n'Wild Junior. Toddlers will have their own dedicated splash pad and attractions, while older kids will have a splash pad zone with attractions, a kids lazy river and 11 slides.

### What's the ratio of family: thrill rides?

We think all of the rides are thrilling! There's a great mix of attractions for all types of guests. In addition to the 11 slides dedicated to our Wet'n'Wild Junior guests, the park will have six family raft slides and eight lanes of mat racers.

Thrill-seekers will have four aqua loops, eight lanes at our tube complex, the world's highest double sky coaster and of course the flow barrel.

### What's the biggest challenge of building Wet'n'Wild Sydney?

Sydney doesn't present challenges as much as it presents the opportunity to create something stunning. The executives of Village Roadshow planned this project extremely well. We're on time, on budget and on brief to deliver the world's best waterpark." ●





### GestureTek's augmented reality for Disney tour

GestureTek created an augmented reality experience for the Disney show Phineas and Ferb's Perry the Platypus on tour. The experience worked via a video camera connected to a GestureTek computer system. Disney fans could join the mission to bring Perry back home via augmented reality and virtually get in the action with Phineas, Ferb and other characters.

**attractions-kit.net** KEYWORD

gesturetek



### Ideal adds new features to its software systems

Ideal Software Systems has expanded its Business Solution with online and mobile solutions launched at IAAPA. Ideal provides amusement businesses with one full-featured solution from the game floor, food and beverage, redemption to back-of-house. Ideal revealed new features for its N-Site software and hardware product suite, including additions to its restaurant module, E-Commerce services and optical-scan cashless card readers.

**attractions-kit.net** KEYWORD

ideal software

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### Polin plans Santorini Water Fantasy launch

Polin's Santorini Water Fantasy, Thailand, will open in Spring 2013 as an aquatics addition to Santorini Park, an amusement park in the Petchaburi Province, Thailand. The existing amusement park is themed after the Greek island of Santorini. The water park will sit on about four acres and will cost US\$3.25m. The existing park sits on about eight acres of an existing 23.7 acres. Polin's water slides planned for the Santorini Water park include the King Cobra, Looping Rocket, Space Shuttle and Windigo.



**attractions-kit.net** KEYWORD

polin



**attractions-kit.net** KEYWORD

innovative leisure

### Innovative Leisure Sky Trail for Quest

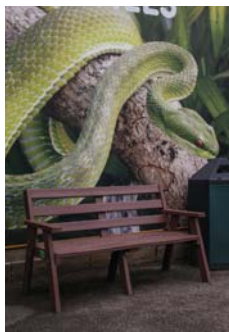
Interactive family attractions specialist Innovative Leisure has installed the Sky Trail high ropes course at Paragon Entertainment's Quest at Westfield, Merry Hill in the West Midlands, UK. The four pole, custom-built Sky Trail Explorer course was the latest completed by the company during 2012 and has been designed to fit into an atrium at 17m (56ft)-high by 8sq m (86sq ft)-wide. The course was designed in six weeks and manufactured in eight and covers four levels, providing users with 39 challenging elements which increase in difficulty the higher they go.



## Messagemaker LEDs at Europe's Parliamentarium

Dynamic bespoke displays by LED specialists Messagemaker are forming part of an interactive exhibition at the Parliamentarium visitor centre in Brussels. Messagemaker devised LED digital message displays for integration into three key areas within the exhibition. Five 9m (29ft)-long by 1.2m (4ft)-high LED ticker displays continuously relay quotes and statistics about the European Parliament in 23 languages. Embedded in glass, these displays form part of the interactive tables in the reception area and throughout the centre.

[attractions-kit.net](http://attractions-kit.net) **KEYWORD** messagemaker



[attractions-kit.net](http://attractions-kit.net) **KEYWORD**  
marmax

## Marmax recycled benches for London Zoo

Marmax Products has supplied London Zoo with more than 80 outdoor seats and benches made from 200,000 recycled plastic milk bottles. The Zoological Society of London (ZSL) – a charity devoted to the worldwide conservation of animals and their habitats – runs London and Whipsnade zoos, which both use Marmax products. Jamie Turner, estates manager, said: "ZSL London Zoo is committed to reducing the amount of waste that goes to landfill and Marmax furniture supports this perfectly. The furniture fits in well with our site and is durable, has a long life span and is low maintenance."



## Hanwell air technology preservation project

Environmental monitoring and control specialist Hanwell Instruments Ltd (part of the IMC Group) has completed a UK conservation project at the National Trust's oldest building, a fourth century Romano-British villa in Chedworth, Gloucestershire. Hanwell provided a building control system to preserve the site and its newly discovered mosaics using air control.

[attractions-kit.net](http://attractions-kit.net) **KEYWORD**  
hanwell



## projectiondesign revives ancient Chinese cave art

Norwegian-based projectiondesign created an immersive exhibition at Smithsonian's Arthur M Sackler Gallery, Washington, USA. Visitors to the Pure Land: Inside the Mogao Grottoes at Dunhuang exhibition saw 3D 360-degree panoramic imagery of paintings and sculptures from ancient rock caves known as Bhaishajaguru's Eastern Paradise in China, a UNESCO World Heritage site. The exhibition used six F10 AS3D projectors across the site.

[attractions-kit.net](http://attractions-kit.net) **KEYWORD**  
projectiondesign

# GUIDING LIGHT

A search for the smelliest artefact, the artist's perspective and 3D are among the lighter approaches making audio-guides and apps fun

KATHLEEN WHYMAN • MANAGING EDITOR • ATTRACTIONS MANAGEMENT

## The Art of The Brick Digital Guide

Users get a tour of the exhibition by the artist himself through Antenna's digital guide for ArtScience Museum, Singapore.

Available in English and Mandarin, The Art of The Brick Digital Guide takes visitors around artist Nathan Sawaya's fun exhibition of large-scale sculptures made from Lego bricks. Sawaya's voice features throughout, providing in-depth interpretation plus a personal perspective on his inspirations while bringing the already vivid pieces to life.

The tone is informal, reflecting Sawaya's desire that art should be as accessible as possible and hopefully

inspiring adults and children alike to create their own artistic work out of Lego bricks when they return home.

Content is accessed through the main menu screen, which is a grid view featuring high-resolution thumbnails of the works and colour-coded to the rooms and themes of the exhibition. By pressing the image or title of the work, the audio commentary begins and a large image of the work appears on screen.

Visitors enter the number displayed on a small sign next to the works into a keypad, which is designed to look like a block of multi-coloured Lego bricks, and the content begins automatically. During

playback of the commentary, it's possible to make the images displayed full screen and zoomable. There's also the option to read a short caption detailing when the piece was made and the exact number of bricks used, a quiz and an extensive contextual image gallery.

The Digital Guide was built using Antenna Publisher™. "We spent a great deal of time developing and customising a feature-set that we believe will deliver a rich interpretive experience," says Matthew Vines, global marketing and communications manager. "Antenna Publisher gives us the ability to build and manage iOS, Android and HTML5 phones and tablet apps. It works by using a suite of drag a drop blocks, which represent a variety of different user experiences."

The guide has been published as an application for the iOS platform. It's available on iPod Touch players, which are given out with disposable headphones.

**SAWAYA'S VOICE FEATURES THROUGHOUT, PROVIDING IN-DEPTH INTERPRETATION PLUS A PERSONAL PERSPECTIVE ON HIS INSPIRATIONS**



The digital guide is available on iPod Touch players which are given out at the museum with disposable headphones



The Podcatcher handset can be understood and in use by visitors within a minute of them receiving it

## Podcatcher

**C**reating a guide that visitors can learn to use in less than a minute was the aim for Guide ID's Podcatcher Interactive Platform and app.

Already in use at Royal Palace Amsterdam and Kröller Müller Museum in The Netherlands, and Kelvingrove Art Gallery and Museum in Glasgow, UK, the guide is ideal for attractions operators who want to offer a simple guide that visitors can understand and use straight away.

On arrival, visitors receive a Podcatcher handset or download the app and select which tour, quiz or language they'd like.

Throughout the attraction, IDentifiers, QR codes or both are located, which trigger the content of that location or object. Visitors point the Podcatcher or scan a QR code to listen to the information and follow simple instructions to access a trail, tour, quiz or interactive game. If visitor research is being done, they'll also be asked to answer some questions at the end of their visit.

Additional messages can be added at any time about offers in the café and shop or about future events.

Online software (CMS) is used to create content, store the different tours and update the whole platform (Podcatcher and app) on a daily basis. Both the Podcatcher and app are controlled from this system, so changes only have to be made once.

The Podcatchers are charged in small docking stations, which also connect them to the internet via a USB connection to a computer. The content on the handsets is triggered by infrared signals, which are sent

out by the IDentifiers. The app runs from the visitors phone and is triggered by QR code scanning.

The platform's online software collects all the live visitor feedback data, which is stored as the handsets and apps are used. This gives clients the opportunity to research and evaluate their business on a daily basis.

Soon to be launched is ID Guide's online marketing via email collecting.



Kelvingrove Art Gallery's new guide

## Acoustiguide Vstory

**A**coustiguide has partnered with visual recognition and augmented reality specialists Vstory to further enhance its offer.

Using the Vstory image recognition and augmented reality platform, visitors can interact directly with exhibits at an attraction, with or without a Wi-Fi connection. The technology allows visitors to access visual and audio content on their own devices (iOS and Android) without having to key in any numbers or press anything on screen. It can work with pictures, objects and buildings and can link through to all kinds of media including audio, video, images and text.

The Acoustiguide Vstory app can be downloaded free from the App Store or Google Play or a product sheet can be downloaded from Acoustiguide's website.



Users can find out more about HMS Belfast using the Acoustiguide Vstory app



## The Legacy of the House of Alba

For the first time in Spain, traditional audio guides have been exchanged for Nintendo 3DS XL consoles at the exhibition The Legacy of the House of Alba.

Currently showing at the CentroCentro Cibeles cultural centre in Madrid, the exhibition brings together around 150 paintings – including masterpieces by Goya, Renoir and Rubens – sculptures, historical documents and manuscripts, archaeological artefacts, jewellery and furniture, many of which have never been shown to the public before.

The use of the Nintendo 3DS XL consoles makes it possible to tour the main exhibits in three dimensions, as well as providing additional information. Visitors can see magnified images of the works, listen to explanations of the pieces, discover interesting facts and test their knowledge of the House of Alba.



Visitors use the console for a 3D tour



The Duchess of Alba in White, painted by Goya in 1795, is among the masterpieces

## Museum Explorer

Visitors to the National Museum of Scotland can find the ugliest, fiercest, smelliest and oldest objects using the app Museum Explorer.

Visitors choose a category on their phone and then follow the clues to find the relevant object in the museum, which could be anywhere across its 36 galleries. The object categories are: fiercest; oldest; smelliest; ugliest; fairest; strongest; tallest; and bloodiest.

When they've found an object, visitors unlock a badge and can take and share a photo of their discovery featuring a unique set of frames. There are eight challenges to solve, with a ninth object unlocked when all the others are found.

"We were keen to attract people who had already visited the museum and give them a reason for returning and an alternative way of exploring what's there," says Kirsty Tough, marketing and communications assistant. "We purposefully selected objects from areas of the museum that are slightly off the beaten track, as well as some all-time favourites, so there was a good spread of material."

"We focused on nine objects, rather than 9,000, to make sure it didn't feel overwhelming – we see the app as a gateway to further exploration."

The app was designed and developed by Kotikan, Pocket Proof Ltd and staff at National Museums Scotland. ●



The app is available on Apple iOS

# WEB GALLERY

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