

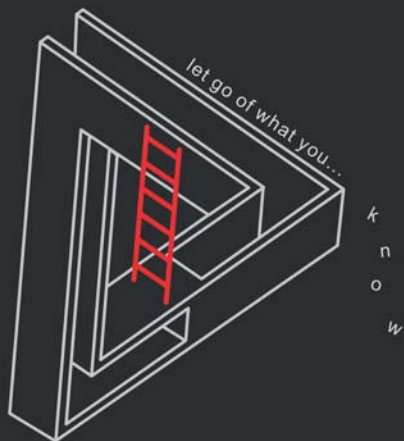
FOR LEISURE ARCHITECTS, DESIGNERS, INVESTORS & DEVELOPERS

# CLADbook

2018







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thinking the **UNTHINKABLE**

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## Open invitation

In this, the second edition of the yearly CLADbook, we celebrate eight of the many architects and designers we have interviewed over the course of the past year for our sister publication CLADmag.

In these excerpts, we're reminded of architecture's capacity to do many things. Jeanne Gang (p.46) tells us architecture can encourage communities to grow, that a well-designed building can, over time, effect change on its wider environment. David Chipperfield (p.50) says that architecture's role in society must not be minimised, that architects should not shirk their responsibility to create in a way that is 'purposeful' for society.

Peter Zumthor (p.74) tells us that buildings should speak to us, evoke emotions in us, and Marcel Wanders (p.58) reminds us that, alongside noble aims, architecture can also be fun.

These architects and designers, and numerous others – who build museums and galleries, fitness and health facilities, wellbeing retreats and spas, places to stay when we travel and homes for sports teams and their supporters – are driven by diverse motivations, but great work in the leisure sector shares a common thread: it's designed to welcome everyone.

Great work in the leisure sector shares a common thread: it's designed to welcome everyone

In *Creating Audiences* (p.96), architects reveal the new ways they are finding to engage with fans in the stadium, around the stadium, and beyond the stadium. As sports venues aim to integrate with – or build their own – communities around them, audiences are increasingly valued and their experiences enhanced.

In *Slumber Party* (p.88), we learn about dynamic, adventure-loving millennials and how they are being courted by global brands like Hilton, Accor, Marriott and Shangri-La. These brands have invested heavily in hotel concepts specifically targeting this demographic. In so doing, they have found inspiring ways to appeal to anyone who is young-at-heart.

In *Finger on the Pulse* (p.116), we ask experience designers how they put people at the heart of the design process. And, as this is a place to share stories, we hope you'll enjoy *Water Wonderland*, (p.124), about the founder and designers of a waterpark built with "ultimate inclusion" in mind. We love that this project is designed from the get-go to be enjoyed by everyone; it's an approach we can all learn from. □

Alice Davis, editor, CLADbook

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PHOTO BY STEPHEN POND

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The annual CLADbook celebrates the best of CLAD. Contents include the Development Pipeline, Movers & Shakers, design and innovation features, research and expert analysis. CLADbook is available in print, on Digital Turning Pages and as a PDF and is distributed to all CLADmag subscribers, as well as being available for sale as a standalone publication.



**About CLAD** The Community of Leisure Architects & Designers unites people who contribute to the success of leisure and the built environment, to enable them to do business. CLADglobal, the organisation behind CLAD, is a media business creating magazines, books, websites and digital feeds to enable CLAD professionals to share news, opinions and best practice. Find out more about the CLAD portfolio at [CLADglobal.com](http://CLADglobal.com)

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# development pipeline

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# CLAD Development pipeline

A sector-by-sector summary of some of the most significant projects in development around the world



## Natural History Museum

Los Angeles, California

Frederick Fisher and Partners

The Natural History Museum of Los Angeles (NHM) has a masterplan to transform the institution over the next decade.

Designed by Frederick Fisher and Partners (FF&P), the NHM West/South Project reimagines the physical space and programmes of the museum, which sits on the same site as film director George Lucas' upcoming Museum of Narrative Art.

The FF&P masterplan focuses on areas that were not worked on during the original 10-year plan, which was completed in 2013. The blueprint promises increased

flexibility, capacity and transparency for the museum's gallery space, as well as creating a study centre and educational spaces while enhancing visible storage of its collections.

A multi-purpose theatre is included and the extra space will act as a hub for the communities around Exposition Park.

The concepts also show the museum's Jean Delacour Auditorium wing replaced with a three-storey building and basement. The new wing, which bookends the main NHM building, features a glass facade, enabling people on Exposition Park's south lawn to see into the museum.

The museum's south entrance will be transformed, with the redeveloped space running the length of the southwest perimeter. The scheme also proposes

- The blueprint promises increased flexibility and capacity for the museum

reworking office and gallery spaces in the current building to facilitate a more dynamic overlap between public display areas, research activities and collections, and its educational programmes. Finally, a new rooftop restaurant will be created.

The plans complement a redevelopment of Exposition Park and neighbourhood. In addition to the Lucas Museum of Narrative Art, the Los Angeles Football Club home stadium and the Expo Line tram system, plans include a renovation of the LA Memorial Coliseum and a permanent building at the California Science Center for the Space Shuttle Endeavour. □





## New Museum

New York, New York

OMA

Architecture firm OMA is working on its first public building in New York City, an expansion of the New Museum.

Partners Rem Koolhaas and Shohei Shigematsu lead the project, which is being built on a site at 231 Bowery, purchased by the contemporary art museum in 2008.

The expansion doubles the museum's footprint by providing an additional

● The New Museum expansion is being built at the 231 Bowery site

4,600sqm for galleries, improved public circulation and flexible spaces. As a result, visitor numbers are expected to significantly increase from the current figure of 400,000 per year.

The new structure will complement the museum's flagship building, designed by Japanese architects SANAA and opened in 2007. The project is scheduled to break ground in 2019. It is being funded by a US\$85m capital campaign. □



● Construction is yet to begin

## Guggenheim Abu Dhabi

Abu Dhabi, UAE

Frank Gehry

The design for the long-stalled Guggenheim Abu Dhabi development – the original deal for the museum was signed more than a decade ago in 2006 – features expansive industrial studio spaces and presents new gallery layouts unlike conventional museum spaces, with clusters of galleries connected by catwalks centred around a covered courtyard.

Once complete, the museum will be the largest of the Guggenheim facilities. It will join the newly opened Louvre Abu Dhabi as part of the Saadiyat Island development. □



## New Tretyakov Gallery

Moscow, Russia

OMA

Rem Koolhaas and OMA's plans to renovate the largest museum building in Russia focus on improving and modernising its spatial infrastructure. The New Tretyakov

● Koolhaas aims to improve the spatial infrastructure of the building

Gallery houses an important collection of Russian art, including work by Malevich, Kandinsky and Chagall as well as Soviet artists. OMA's redesign will create four sectors – art storage, an education centre, the collection galleries and a festival hall – each with a distinctive identity and role. These will be linked by a new pedestrian route along Moscow River, with cutouts in the museum's façade opening up its interior spaces to the city. Local architecture firm Reserve will collaborate on the project. □ ▶

## Einstein Museum

Jerusalem

Arad Simon

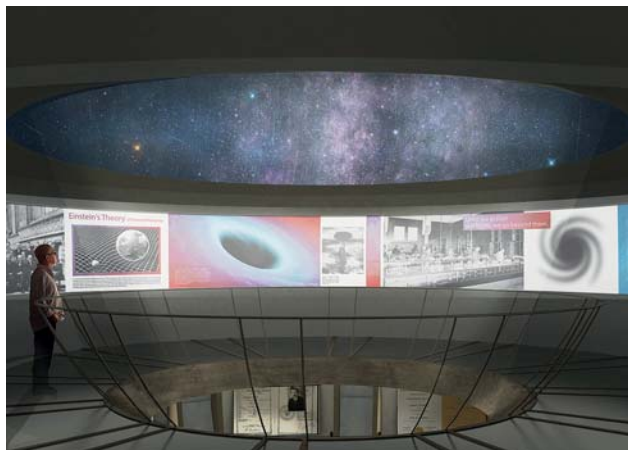
An abandoned planetarium in Jerusalem on Hebrew University's Givat Ram campus is being converted into a museum dedicated to Albert Einstein as part of a US\$5m project to showcase his personal archives.

Arad Simon was selected from four firms, with the university saying the winning proposal was "modest, not grandiose, and it spoke to us".

The visitor centre sits inside the dome, while the lobby – which will host exhibitions – will hold Einstein's library. Separately, there will be archives and a research wing.

Inside the dome, the building's floor will be partly excavated, designed as a bowl so visitors can lie down and look up at the planetarium's ceiling, which shows milestones from Einstein's life.

In the planetarium's upper dome, 12 'wells' of light display the movement of the sun during the day. □





## New Cyprus Museum

Nicosia, Cyprus

XZA Architects

Greek architect Theoni Xanthi won an international design competition for a new archaeology museum in Cyprus, which will house the nation's treasures.

The New Cyprus Museum replaces the current archaeological institution in Nicosia. That building was established in the late 1800s and now lacks the space to house the growing collection of antiquities.

- The New Cyprus Museum is expected to cost almost €50m

Its €49m replacement museum will occupy the site of the old Nicosia General Hospital, which itself is being relocated.

In the design for the museum, Xanthi and her colleagues at XZA Architects imagined three raised white-stone volumes resting above clear glass boxes. A terraced garden with trees and waterways surrounds the building, and an open-air atrium appears to feature a sunken public plaza that can host outdoor performances. □



- It's expected to open in 2019

## Statue of Liberty Museum

Liberty Island, New York

FXFOWLE

FXFOWLE partner Nicholas Garrison led the design of the US\$70m Statue of Liberty Museum, dedicated to the Statue of Liberty on the monument's home of Liberty Island. The museum is a key part of a beautification plan for the island, with the building blending into its surroundings, seemingly rising out of the ground with its grass roof, which is designed as a habitat for migratory birds.

Three galleries make up the interior. ESI Design is creating displays for the exhibitions. □



- According to reports, the project will cost approximately €108m

## Pinault Art Museum

Paris, France

Tadao Ando

Tadao Ando is converting Paris's historic Bourse de la Commerce building into a new contemporary art museum for the collection of billionaire businessman François Pinault. The Bourse, built in the 19th-century, is a circular structure topped with a high glass dome. Ando plans to install a 9-metre high concrete cylinder in the centre of building, which once housed the city's grain store. □ ▶



## Collectiegebouw, Museum Boijmans van Beuningen

Rotterdam, the Netherlands

MVRDV

MVRDV has created a new model for how museums can take full advantage of their vast cultural collections.

Winy Maas, Nathalie de Vries and Jacob Van Rijs – who are transforming what was an art storage depot into an attraction in its own right – are rethinking the storage facility as something that can take people behind the scenes and showcase important cultural artefacts not normally on view.

Called the Collectiegebouw (collection building), the structure will store 75,000 European art works belonging to the city's Museum Boijmans Van Beuningen.



● The building will store the artworks of Museum Boijmans van Beuningen

● The collection is housed inside a cylindrical structure in the Museumpark

While art depots typically hide unexhibited collections from view, visitors to the facility will witness a hive of backstage activity. Restoration, maintenance and transportation of the stored art will all take place in public view.

Located in the OMA-designed Museumpark in Rotterdam, the Collectiegebouw is a 14,000sqm cylindrical building. A route leads visitors around a central atrium, with walls lined with the stored artworks. The journey ends on the roof, home to a restaurant and a sculpture garden, complete with any trees that had to be removed during construction. Guided tours go to the conservation facilities where artworks are restored by specialists. □





## Museum of London

London

Stanton Williams / Asif Khan

Stanton Williams and Asif Khan have designed the Museum of London's new home at the historic Smithfield market.

The plan lifts the dome on the market site to create a landmark light-filled entrance to the museum. Williams and Khan are working with conservation architect Julian Harrap and landscape design consultants J&L Gibbons on the project, which also features spiral

- A light-filled museum entrance creates a focal point for the area

escalators leading down to a vast excavated underground chamber, flexible meeting spaces, a sunken garden and green spaces.

The Museum of London was given the green light to move to Smithfield Market after redevelopment plans for the site were abandoned. The Smithfield complex dates back more than 800 years, with a livestock market occupying the site as early as the 10th century. It has existed in its current guise since 1866 and still operates today as London's only major wholesale market. □



- Former mills occupy the site

## Art Mill Museum

Doha, Qatar

Elemental

The firm of Pritzker Prize-winner Alejandro Aravena is designing the Art Mill Museum on the historic waterfront of Doha, Qatar.

The site complex was once home to Qatar's flour mills. Elemental took inspiration from the monumental grain silos on the site, contrasting these retained structures with a looser grouping of new silos.

The Art Mill Museum joins IM Pei's Museum of Islamic Art and Jean Nouvel's forthcoming National Museum of Qatar, which opens on the waterfront in December 2018. □



- Jeanne Gang leads the project, with exhibit design by Ralph Appelbaum Associates

## American Museum of Natural History

New York, New York

Studio Gang

Work is underway on the American Museum of Natural History's US\$340m Gilder Center – a massive development intended to expand the institution's role for scientific research and education. Adding a 21st-century facelift to the 150-year-old museum, the development is being designed by Studio Gang Architects. □ ▶



## Adelaide Contemporary

Adelaide, Australia

DS+R / Woods Bagot

A team led by US studio Diller Scofidio + Renfro (DS+R) and Australian architects Woods Bagot won a competition to design Adelaide's modern art museum.

Intended to revitalise the site of the former Royal Adelaide Hospital, the attraction will be a sister museum to the Art Gallery of South Australia, combining exhibition, research and education spaces with a sculpture park and community meeting place. It is envisaged as one of the most significant new arts initiatives of 21st-century Australia, providing a national focal point for Aboriginal and Torres Strait Islander art and cultures.

The "dynamic people-friendly" design features top-floor sky galleries and a rooftop garden displaying plantlife from a pre-colonised South Australian landscape, linking the idea of the contemporary to ecological and cultural history. □



● Plans include a performance lab and research and education areas



## Los Angeles County Museum of Art

Los Angeles, California

Atelier Zumthor

Swiss architect Peter Zumthor is designing the new US\$600m home of the Los Angeles County Museum of Art (LACMA) – a vision that's gone through several iterations.

With light earthy tones set to be used for the monolithic façade, the aim is for the building to be “timeless, indigenous

● Construction on LACMA's new home could start in the second half of 2018

architecture” to contrast the city's more modern Spanish-inspired architecture.

According to the plan, eight semi-transparent pavilions will support the main exhibition level and feature access points to the surrounding gardens.

Construction of the building is expected to start in the third or fourth quarter of 2018, when the nearby Academy Museum of Motion Pictures is expected to open. □



● The existing part will be updated

## Sørlandets Kunstmuseum

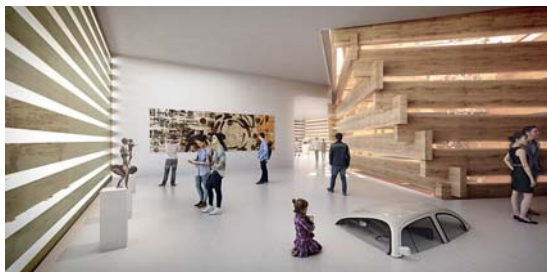
Kristiansand, Norway

Mestres Wage / MX\_SI

Two Barcelona architecture studios are designing a new home for the Sørlandets Kunstmuseum.

Mestres Wage Arquitectes and MX\_SI Studio will transform a former 1930s wharf-side grain silo into an elegant complex anchoring the city's new cultural quarter.

The design places a series of simple architectural volumes around the silo. These will house the main permanent exhibition spaces and a shop and cafe, while the existing building will be subtly renovated. □



● A skylight at the heart of a central atrium allows light to reach each floor

## Odunpazari Modern Art Museum

Eskisehir, Turkey

Kengo Kuma

Kengo Kuma has designed the Odunpazari Modern Art Museum as a series of overlapping stacked wooden volumes forming a 3,582sqm building, inspired by Eskisehir's Odunpazari district, which is known for its traditional Ottoman wooden houses.

Kuma's different-sized volumes provide diverse exhibit spaces inside the structure. □ ▶

## Oman Botanic Garden

Muscat, Oman

Arup / Grimshaw

Plans for a botanic garden sheltered beneath a duo of biomes in the Omani desert have been unveiled by Arup, Grimshaw Architects and Haley Sharpe Design (hsd).

The Oman Botanic Garden spans approximately 420 hectares on the Arabian Peninsula and consists of two boomerang-shaped glass biomes, a visitor centre and education and research facilities.

Located in the north of the country, 35km from Muscat at the foot of the Al Hajar Mountains, the biomes represent two very different sides of the local climate and environment and will house a large number of endemic and endangered plant species.

The Northern Biome will immerse visitors in the mountainous terrain to the north of the site, while the Southern Biome will recreate the lush green vegetation



● The two biomes represent different aspects of local ecology

brought about by the khareef (a monsoon season unique to southern Oman). The moist atmosphere created by the khareef supports a special ecosystem known as the Arabian Peninsula coastal fog desert, with a variety of plantlife unique to the area.

Elsewhere in the gardens, visitors will experience native flora from other parts of

Oman, with zones dedicated to the wadis, mountains and desert landscapes.

The site has been designed to meet the LEED Platinum certificate for sustainability, with a special irrigation system to ensure no water is wasted. The design uses shading and natural light and chooses building materials suited to the climate of the area. □







### Oslo Aquarium

Oslo, Norway

Haptic Architects

Designs for a new waterside aquarium near the Norwegian capital features a pair of smooth domes jutting out into the fjord.

Designed by London and Oslo-based practice Haptic Architects, the 10,000sqm aquarium is encircled by walkways, providing a glimpse through the windows to the attraction's interior. The building

- The aquarium's roof will double as accessible public space

features a smooth, curved roof that will double as accessible public space.

The aquarium will be built on land which was formerly used for Oslo's main airport at Fornebu in Bærum. Norwegian developer Selvaag also has plans to develop the wider area around the attraction. Opening by 2023, the 7 million litre aquarium is expected to welcome hundreds of thousands of visitors each year. □



- Structures mimic the landscape

### Western Sydney Parklands

Sydney, Australia

Misho + Associates

A second zoo in Sydney will be a "cage free" project costing A\$36m.

First touted in September 2015, the proposal for the Western Sydney Parklands – masterplanned by Australian design firm Misho + Associates (M+A) in conjunction with landscape architecture from Aspect Studios – will create natural-looking spaces to showcase animals, appearing to be free of fences. □



- Zones include HollandWinterWorld, HollandWaterWorld and HollandFlowerWorld

### HollandWorld

Amsterdam, the Netherlands

Various

The Delta Development Group is driving forward plans for a Dutch-inspired theme park and leisure destination near Amsterdam. The project includes plans for on-site hotels providing up to 4,000 rooms.

The 60-hectare HollandWorld attraction is to be located inside a 1,000-hectare parkland close to Schiphol Airport. The project, tabled by International Destination Strategies (IDS) and M2Leisure in 2014, would provide a second gate to the city, creating more space for both tourists and locals. □ ▶



- The design references traditional Italian architectural forms, such as the arcade, piazza and portico

## San Pellegrino Visitor Experience

Bergamo, Italy

BIG

A new factory and visitor centre for mineral water company San Pellegrino has been designed by Bjarke Ingels Group (BIG).

San Pellegrino has bottled water at its plant in Bergamo, Italy, since 1899. It believes that opening an expanded €90m factory and a museum 'Experience Lab' can bring new economic, tourism, social and employment benefits to local communities across the surrounding Lombardy region.

Central to BIG's design for the riverside site are inspirations from Italian architecture and the concept of the archway. Expanding and contracting arches will appear throughout the campus, creating a multitude of spaces and experiences.

BIG is partnering with local architects Studio Verticale, landscape studio West 8 and engineers Arup, among other firms. □



- An Experience Lab will inform and educate guests



## Solar Observatory

Harestua, Norway

Snøhetta

Snøhetta has designed a new planetarium and a visitor centre for Norway's largest astronomical facility by studying the night sky for design inspiration.

Nestled in the dense forest of Harestua, 45km north of Oslo, Solobservatoriet (solar observatory) is the largest solar observatory north of the Alps. Its original observatory was built by the University of Oslo for the total solar eclipse of 1954, and a satellite

- The facility aims to attract tourists, researchers and schoolchildren

tracking station was established by the US Air Force during the Cold War.

The Tycho Brahe Institute is bankrolling the project to turn the site into an attraction. It commissioned Snøhetta to create a design that inspires wonder and curiosity. The designers embraced the interstellar theme by spreading the visitor centre's amenities across a series of scattered cabins, each shaped like a small planet. The 1,500sqm planetarium will be orbited, like the Sun, by the 'planet' cabins. □



- It's 'a new type of cinema'

## Centre Culturel

Paris, France

UNStudio

One of the largest ongoing leisure developments on the planet, Paris' EuropaCity will feature a dramatic indoor/outdoor cinema embedded into the landscape, designed by UNStudio.

The Centre Culturel Dédé Au 7è Art is one of eight key buildings within the wider EuropaCity masterplan created by Bjarke Ingels Group (BIG).

Described by UNStudio as "a new type of cinema", the facility is both a public space and a cultural laboratory – complete with a film studio. □



- Amikoo is set to become the largest theme park in Latin America

## Amikoo

Playa del Carmen, Mexico

Various

Mexico's Riviera Maya has unveiled plans for a US\$840m theme park on its southeastern coast. Featuring culturally-themed attractions, rollercoasters, water rides and a hotel complex, phase one of the 120-hectare Amikoo park is slated to open in late 2018, with its second phase in 2020. Grow Architecture, the Producers Group and Jora Vision are among those involved. □ ▶



## Chase Center

San Francisco, California

MANICA / Gensler

Architecture studio Gensler has designed the interior of San Francisco's Chase Center, which will be the new home of basketball franchise the Golden State Warriors.

Gensler is working with MANICA, who designed the exterior of the stadium building, to work on all of the public interior space, including concourses, clubs, suites, offices, locker rooms the team store and retail space. The 18,000-capacity Chase Center is due to open in time for the 2019/20 National Basketball Association (NBA) season. □



- The facility anchors restaurants, cafes, offices and public plazas





## Yas Arena

Yas Island, Abu Dhabi

HOK

Architecture firm HOK has been selected to design the first-ever multi-purpose arena on Abu Dhabi's Yas Island – an 18,000-capacity sport and entertainment venue. The flexible Yas Arena can be transformed from an 18,000-capacity venue to an intimate 500-seat theatre depending on the nature of the event it is hosting.

● Sporting events, concerts and more will take place at Yas Arena

Sporting events, concerts, conventions and community gatherings are expected to take place at the arena. As well as standard seating, the arena holds premium spaces, hospitality boxes and a VIP lounge that can be transformed into a grand ballroom.

HOK is working alongside Pascall+Watson on the project. The studio is also designing a retail park and dining destination adjacent to the arena. ▢



● The budget is A\$250m

## North Queensland Cowboys Stadium

Queensland, Australia

Cox Architecture

Cox Architecture has designed a 25,000-capacity stadium for the North Queensland Cowboys rugby league team. The A\$250m project was unveiled by the Townsville and Queensland government. It is slated to be ready in time for the 2020 National Rugby League season.

According to the architects, the stadium has been designed to replicate the shape of the Pandanus, a tree native to Northern Australia, with a tapered roof that moves around three-quarters of the stadium. ▢



● The club says the development will create 3,500 jobs and boost the local economy

## White Hart Lane

London

Populous

The new 61,000-capacity home of football team Tottenham Hotspur aims to create an important hub for the area. The key driver of the £750m White Hart Lane project is to be "physically and emotionally knitted into the local community." Populous drew inspiration from the old stadiums of England and Europe to create a facility with an electric match-day atmosphere. ▢ ▶

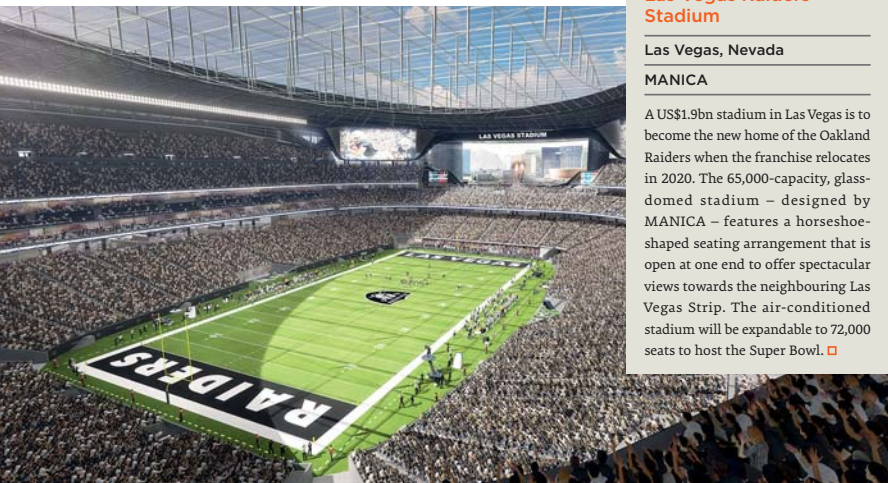


## Las Vegas Raiders Stadium

Las Vegas, Nevada

MANICA

A US\$1.9bn stadium in Las Vegas is to become the new home of the Oakland Raiders when the franchise relocates in 2020. The 65,000-capacity, glass-domed stadium – designed by MANICA – features a horseshoe-shaped seating arrangement that is open at one end to offer spectacular views towards the neighbouring Las Vegas Strip. The air-conditioned stadium will be expandable to 72,000 seats to host the Super Bowl. □





## Vågen (The Wave)

Linköping, Sweden

3XN

Danish architectural practice 3XN has designed a largely wooden aquatics centre for the Swedish city of Linköping. Named Vågen – meaning ‘the wave’ in English – the 24,000sqm facility will be located by a lake.

The architecture is inspired by the vision of waves washing ashore. The massing of the structure follows the natural flow of the landscape, gradually stepping down as it approaches the lake. Large, sweeping

- The building's large windows offer views to the lake outside

windows will blur where the inside pools end and the lake outside begins.

Vågen will additionally feature an outdoor plaza with restaurants in front of the main building. Visitors will be led into a double-height lobby space, overseeing the four different pool areas. Construction is expected to be completed in 2021. The total budget for the project is €80m.

Landscape architects SLA and aquatics consultant Danish Technological Institute are collaborating on the project. □



- Several facilities are under way

## Kai Tek Sports Park

Hong Kong

Leigh & Orange / Jackson

Architecture

A 28-hectare sports complex in Hong Kong has been described by the government as “the most important investment in sports infrastructure in recent decades”. Plans for the Kai Tak Sports Park project include a 50,000-capacity stadium, a public sports ground, an indoor sports centre, a retail and dining area and more than 8 hectares of public open space with landscaped gardens, jogging trails and a waterfront promenade. The estimated cost for the Sports Park is about US\$32bn. □



- The complex will be housed beneath a distinctive latticed roof

## East Austin District

Austin, Texas

BIG

Bjarke Ingels Group (BIG) has designed a sports and entertainment neighbourhood in Texas under a dramatic chequered roofscape. Plans for the 121,000sqm East Austin District were announced by Austin Sports & Entertainment, founded by sports media executives Andrew Nestor and Sean Foley. Plans include a 40,000-seat stadium, 15,000-seat arena and hospitality area. □ ▶



## Six Senses Zhiben Hot Springs

Taitung, Taiwan

Kengo Kuma

Six Senses will open a hot springs resort in the Zhiben area of southeastern Taiwan, an area known for its natural hot springs, medicinal plants and herbs. Six Senses Zhiben Hot Springs is designed by leading Japanese architect Kengo Kuma, known for his ability to frame nature through design.

The resort will be situated at the base of Medicine Mountain, with views of the surrounding valley and mountains, and is set to open in 2020. The spa – also designed by Kuma – will be housed in a

separate building and spread over three floors, with seven treatment rooms, a tea lounge, extensive wet areas, indoor and outdoor hot spring bathing pools, a watsu pool, suspended relaxation pods, a gym, studio, tai chi garden, a juice bar, an infinity pool and a range of rooftop vitality and floating pools. There will also be several wellness suites with dedicated wellness corners, as well as private wet areas.

Comprising just 42 suites and 27 villas, the resort sits lightly upon the 20-hectare site on Medicine Mountain, occupying just 10 per cent of the project site. The resort's landform architecture merges with the natural surroundings. Reinforcing the relationship between inside and outside, floor-to-ceiling windows provide views of

● The resort's landform architecture merges with the natural surroundings

the surrounding environment and natural materials have been used to create a feeling of warmth and comfort.

The operator has also announced it is building a resort and spa on the Eastern Caribbean island of St Kitts. The brand has partnered with Range Developments, which specialises in developing luxury Caribbean resorts, to complete the Six Senses St Kitts resort over the next three years.

A further property is planned for Brazil, with a focus on sustainability, wellness and water activities. Six Senses Formosa Bay will open at Baía Formosa in Rio Grande do Norte, the most eastern territory in Brazil. □





## Lanserhof Sylt

Sylt, Germany

Christoph Ingenhoven

With its natural landscape and temperate climate, the German island of Sylt – described as the Hamptons of Germany – will welcome Lanserhof Sylt in 2020. Architect Christoph Ingenhoven's wellness architecture will be complemented by a "spectacular location" and a planned 5,000sqm treatment area.

With an initial investment of €100m, all of the core Lanserhof values will be embedded,

● Christoph Ingenhoven took inspiration from the reed roofs found on Sylt

including cutting-edge technology and the island's first MRI scanner. An individual, holistic approach and connection between natural therapy and high-tech medicine at the highest level will also be standard.

Ingenhoven is designing an outpatients' clinic and a small private clinic, a Lanserhof Hotel facility with 70 bedrooms, surrounded by houses. Inspired by the overhanging reed roofs found on Sylt, Ingenhoven is building one of the biggest reed roofs ever for the project. □



● RCG is carrying out the design

## Wai Ariki Hot Springs and Spa

Rotorua, New Zealand

RCG

A luxury spa and wellness centre in Rotorua, New Zealand, will incorporate Maori culture, with a focus on thermal water and strong links to the tribe. Due to open in late 2019, the Wai Ariki Hot Springs and Spa will be set on Rotorua's lakefront and is being developed by Pukeroa Oruawhata Group. The facility will form one element of the wider health and wellness vision for the group's 11-hectare site, and will be managed by Australia's Belgravia Leisure. □



## Center Parcs Longford Forest

County Longford, Ireland

Holder Mathias

Center Parcs is building a €233m holiday village in Ireland – its first venture outside the UK – on a 160-hectare site in Newcastle

● Holder Mathias led the last completed Center Parcs in Woburn Forest

Wood, with 470 lodges and 30 apartments nestled into the surroundings.

It will feature the brand's new Forest Spa concept, which showcases an assortment of heating and cooling rooms over six zones within different forest regions, takes inspiration from the Japanese tradition of forest bathing, and opens the spa to its natural surroundings whenever possible.

Designed by Holder Mathias to respond to the Longford Forest setting, the site includes a lake, cycle tracks and footpaths. □ ▶



## Aman Spa New York

New York, New York

Denniston

A dramatic, three-storey Aman Spa is opening inside the brand's upcoming New York property, set to open in 2020 in the heart of Manhattan. Aman New York will be housed in the 1921 Crown Building on Fifth

Avenue and 57th Street overlooking Central Park, and will include a 2,000sqm spa.

The 26-storey Crown Building – designed by architects Warren and Wetmore, who also designed New York's Grand Central Station – will be transformed by architect Jean-Michel Gathy of Denniston, who has worked on several other Aman resorts.

Aman New York will occupy the entire Crown Building excluding the retail space

● A pool surrounded by firepits forms the heart of the three-storey spa

on the first three floors, and will include 83 rooms and Aman's first urban residences.

The Aman Spa will be located on the 7th, 8th and 9th floors. The centrepiece of the spa will be a dramatic 25-metre indoor swimming pool surrounded by fire pits and alcoves of double daybeds. □



## GOCO Khao Yai

Khao Yai, Thailand

GOCO / Tierra Design

Wellness consultancy and management firm GOCO Hospitality is creating a mixed-use wellness community in Khao Yai's wine country, two hours north of Bangkok.

● The community will include a 36-suite wellness retreat

The community will include a 36-suite wellness retreat along with 48 wellness condominiums and 159 condominiums and large-scale residences, as well as a retail village and community park. Bangkok-based Tierra Design is also working on the project. Set to open later this year, the community will also be managed by GOCO.

GOCO is developing several other wellness communities globally, including in Temescal Valley, California; Ubud, Bali; and on the German island of Rügen. □



## Red Mountain Resort

Snæfellsness, Iceland

Johannes Torpe Studio

Myths about Iceland's majestic volcanic landscape have inspired the design of a proposed spa and wellness retreat located next to a geothermal lagoon.

Johannes Torpe Studio has drawn on the topography of caves, craters and lava fields in the Snæfellsness peninsula to devise the story for an 800sqm spa retreat and 150-bedroom hotel. In the spa, guests voyage through stages – contemplation, exposure, confrontation, clarity and enlightenment. Each stage is articulated through different expressions of Icelandic nature, including wind tunnels, fire baths, rain curtains and ice pools. □

## Governors Island

New York, New York

Robert Henry

Governors Island is a 7,000sqm European-style hydrotherapy spa planned for an inclusive recreational island for New York City. New York architect Robert Henry is working on the project in conjunction with Milan, Italy-based QC Terme, which operates nine historical spa properties in Europe. This is QC Terme's first US project.

A range of co-ed and gender-specific indoor and outdoor pools will sit alongside salt inhalation rooms, treatment areas, relaxation rooms, yoga studios and a cafe.

The entire island is being developed to include children's areas and biking and hiking trails – and the spa will benefit from outdoor space and views of Manhattan. □



● Governors Island is a short ferry ride away from Manhattan

## Afan Valley Adventure Resort

Afan Valley, Wales

AECOM

A major adventure resort offering a wide variety of physical, thrilling and wellness activities, a 100-bedroom hotel and 400 luxury lodges on a 194-hectare Welsh site is being project managed by AECOM.

Afan Valley Adventure Resort will offer a mix of healthy and exhilarating pastimes, including water sports, mountain biking, survival training, trampolining, surfing and zorbing, in response to rising demand for British holidays with a stronger emphasis on being active outdoors.

The project is the brainchild of Peter Moore, one of the team behind the launch



● Project management is being led by AECOM



of Center Parcs in the UK in 1987, and Gavin Woodhouse, chair of Northern Powerhouse Developments. Northern Powerhouse appointed AECOM to deliver project management, cost consultancy and multi-disciplinary services on the £130m project.

The active lifestyle resort, which is expected to create 1,000 full-time jobs, is divided into themes such as alpine, forest,

trails, Zen and "Xtreme", and will boast – among other things – ski slopes, an aqua adventure park, ice skating, steam rooms and saunas, zip wires, indoor climbing walls, Laser Quest, a soft play centre, a virtual reality centre, BMX and skate parks, aqua caving, an equestrian centre, bars, restaurants and retail outlets. There will also be a Bear Grylls Survival Academy. □



● The elevated walkway connects each facility at the Xili complex

## Xili Sports and Cultural Centre

Shenzhen, China

MVRDV

MVRDV has designed a sports and cultural complex in Shenzhen, China, which will be navigated via a weaving elevated walkway. Working with local firm Zhubo Architecture Design, MVRDV created four distinct volumes: a 20,000sqm amphitheatre; a 15,000sqm basketball, badminton and fitness arena; a 6,000sqm swimming pool and wellness building; and a 10,000sqm multifunctional sports arena. □





## ACTVENTURE

Queensland, Australia

Thinkwell

Sanad – the Australian offshoot of Dubai-based investment firm Najibi Group – is financing a A\$400m “active lifestyle” destination in Queensland, Australia, which will feature extreme water facilities and an Olympic-standard training centre.

The mixed-use project will also have a 4-star hotel, conference and exhibition centre; restaurants; a great lawn for major events, concerts and community activities;

- ACTVENTURE is scheduled to open in its entirety in 2020

an outdoor adventure park with activities including kayaking, bungee jumping, net climbing, flyboarding, zorbing and paddle boarding; and a 6,000sqm retail zone.

Los Angeles-based Thinkwell Group has been named lead consultant on the Sunshine Coast project, which is expected to inject A\$30m into the local economy each year. WhiteWater West is also working on the project, which will boast Australia's largest wave pool and the world's largest interactive aqua play structure. □



- Equinox is expanding

## Equinox Shoreditch

London

TBA

Following the launch of Equinox's luxury health club in a former bank in St James, London – designed by Joyce Wang and Woods Bagot – work is under way on a new location in Shoreditch. This will be the group's third club in London. The first opened in Kensington in 2012.

The Shoreditch site will be at The Stage, a luxury residential, office, retail and leisure area. Group fitness, yoga studios, a cycling studio and other facilities will be available and residents of The Stage will benefit from three years free membership. □



- The project's extensive landscape will feature a lake and various leisure buildings

## Adidas World of Sports Campus

Herzogenaurach, Germany

LOLA Landscape Architects

Sportswear giant Adidas is transforming its German headquarters into a huge leisure campus. Dutch studio LOLA Landscape Architects designed the outdoor component of the World of Sports campus, where employees can test Adidas products for activities ranging from football and running to skateboarding and cycling. □ ▶



## 1 Hotel Haitang Bay

Sanya, China

The Oval Partnership

The first Chinese development for 1 Hotels – founded by the hotelier Barry Sternlicht – is the 280-bedroom property at Haitang Bay in Sanya, China, which is being developed in partnership with Sunshine Insurance Group.

Designed by Hong Kong-based architects The Oval Partnership, the whole resort is being created with a strong emphasis on sustainable design. Natural materials and green spaces will be introduced throughout. Interiors are from Singapore-based FARM, and will use earth tones to

set a warm, comfortable mood, including in the three sky villas, signature organic spa and expansive fitness centre and pool.

An onsite farm will be run and managed by the property, providing fresh and organic fruits and vegetables for the restaurants and lounges.

GOCO Hospitality has worked on the concept and technical design of the 2,138sqm spa and wellness area. The wellness area will be prominently located just off the main reception and will include seven treatment rooms with views of the surrounding landscape, each with their own outdoor terrace relaxation areas. Two spa suites also feature private gardens and outdoor whirlpools.

● The resort is being created with a strong emphasis on sustainable design

Significant indoor heat and water facilities include a women's bio sauna and herbal steam room and a men's sweat lodge and salt steam room. An outdoor vitality pool will provide guests with various combinations of massage-jet settings, and a large, circular communal relaxation lounge acts as one of the main focus points of the wellness facilities, along with a wellness cafe and spacious gym. A dedicated wellness concierge will guide guests on all of the wellness opportunities available.

1 Hotels are upcoming in Silicon Valley, California, and Cabo San Lucas, Mexico. □

## Rosewood Papagayo

Guanacaste, Costa Rica

HKS

Rosewood will open a location in Costa Rica in 2020, the Rosewood Papagayo. Designed by Dallas, Texas-based HKS, Rosewood Papagayo will use indigenous materials and locally inspired artwork throughout the property.

Located on the northwest coast of Costa Rica, the resort will be nestled into the hillside on the Pacific Ocean and offer guests views over both the surrounding jungle canopy and the Gulf of Papagayo.

The resort boasts direct beach access and two swimming pools, a fitness center and the brand's signature Sense, A Rosewood Spa, as well as a variety of dining options.

Situated within a forest, the resort will have 130 bedrooms and 50 residences. The accommodations will feature open-air living



rooms, large terraces and private plunge pools. Seven two-storey treehouses will feature a striking, contemporary design that will sit comfortably in the forested setting. □

● The development marks Rosewood's first in Costa Rica



## Fairmont Taghazout Bay

Agadir, Morocco

HKS

Architecture studio HKS has designed the Fairmont Taghazout Bay, a 615-hectare seaside resort on the coast of Morocco

in Agadir, drawing inspiration from the semi-nomadic Imazighe people, also known as the Berbers. The resort's spa garden will sit in a sunken oasis surrounded by a cluster of buildings inspired by a Berber village, where guests can receive different treatments. Facilities are to include a hydrotherapy pool, yoga

● Fairmont Taghazout Bay features 155 sea-facing rooms and 52 branded villas

deck and a Moroccan hammam. HKS is working with interior designer Wimberly Interiors and landscape architects Scape Design Associates to create the 155-bedroom resort. □



## Mui Dinh Eco-Resort

Mui Dinh, Vietnam

Chapman Taylor

Vietnam's government has granted approval for a mammoth resort to be built in Mui Dinh on the country's southeastern coast.

The Bangkok studio of global architects and masterplanners Chapman Taylor is creating a 100-hectare masterplan for the Mui Dinh Eco-Resort, which will include six resort hotels – with a combined 7,000 rooms – a theme park, a casino, a spa, a beach club, a boutique hotel, 500 ocean-facing villas and a mountain clubhouse.

The design team plans to keep the density of the development low by placing individual villas and the smaller building types around the main mountain of Cape Dinh in order to integrate the buildings with the natural surroundings. Larger facilities will be constructed in one single building further inland so as to avoid damage to the site's marine ecosystems.



The architecture is inspired by the local history, particularly the Cham tribal culture. Sustainability principles will be integrated in water reuse, energy saving and natural temperature control. The project is being bankrolled by the Cap Padaran - Mui Dinh Eco Park Group – a consortium of several Vietnamese and international companies. □

● The resort is oriented to increase natural shade and sun protection





## Lake Nona Resort

Orlando, Florida

Arquitectonica

Designed by Miami-based Arquitectonica, Lake Nona Resort is billed as a performance resort with a focus on wellness and fitness. Located at the masterplanned wellness community Lake Nona, the eight-storey Lake Nona Resort sits on the southern shore of the lake within the community's growing sports district and near the new USTA National Campus – one of the world's largest tennis campuses, with 100 courts.

- The manmade lagoon will be used for swimming, sailing and paddleboarding

Standard rooms will be oversized to allow extra space for stretching and fitness equipment and feature oversized beds with mattresses designed to improve fitness, blackout shades and circadian lighting.

The resort will include a spa and fitness campus. Spa consultancy WTS International worked on the market analysis, strategic planning, programming and financial analysis for the Lake Nona Spa.

The resort will include a lagoon, designed by Miami-based Crystal Lagoons. □



- The project opens in 2019

## Amrit Ocean Resort & Residences

Palm Beach, Florida

S&E Architects

Developer Dilip Barot, founder of Creative Choice Group, is building a destination resort on Singer Island in Palm Beach, Florida.

The 9-hectare development, designed by S&E Architects with interiors by Bilkey Llinas Design, will focus on mindful living, bringing Eastern traditions of inner science together with Western luxury.

Two towers – named Peace and Happiness – house 150 hotel rooms, 359 residences and a spa designed in collaboration with ESPA. □



- Deira Islands will feature hundreds of hotels, leisure attractions and retail options

## Deira Islands

Dubai, UAE

AE7

Developer Nakheel and Thai hotel group Centara Hotels and Resorts are opening a hotel resort on Dubai's under-development Deira Islands. The 600-bedroom resort will be managed by Centara. Nakheel is also behind an 800-bedroom beachfront resort in partnership with Spain's RIU Hotels and Resorts and more partnerships with global hospitality firms are being explored. □ ▶

## Public space

### Hudson Yards

New York, New York

Heatherwick Studio /  
Nelson Byrd Woltz

Vessel – a sculptural urban landmark by Heatherwick Studio and the centrepiece for New York's Hudson Yards development – is a honeycomb-like structure, described by its creators as "one of the most complex pieces of steelwork ever made". At 46 metres tall, it will ultimately provide a one-mile vertical climbing experience.

It's comprised of 154 intricately-interconnecting flights of stairs, 2,500 individual steps and 80 landings. Vessel has been envisioned a "landmark-within-a-landmark" for the Public Square and Gardens at Hudson Yards, which are being designed by Heatherwick Studio and Nelson Byrd Woltz Landscape Architects.

Due to open in 2019, the area will feature over five acres of plazas and gardens. □



● The area connects to the High Line and the new Hudson Park and Boulevard

### Willamette Falls Riverwalk

Oregon City, Oregon

Snøhetta

Snøhetta has created a riverwalk for North America's second largest waterfall.

For over a century, the 12-metre high Willamette Falls has been cut off from public access by industrial infrastructure built along the water's edge. Now, new public spaces are planned to offer observation points that do justice to the height and drama of the site.

The design, which was completed in collaboration with Toronto-based architects Dialog, Portland-based landscape studio Mayer/Reed and a team of engineers and hydrologists, has been subject to a lengthy public engagement process.



● Former industrial buildings will be integrated with the site

The 22-hectare site is being treated as a single landscape "with a network of promenades and lofted pathways". Several old factory buildings on the site – including a paper mill, woollen mill and historic

boiler complex – will be opened up and integrated with the walkway to chart the industrial history of the Pacific Northwest. The attraction will be built to accommodate flooding and seismic activity. □

## Tainan Axis

Tainan, Taiwan

MVRDV

Work has started on a new green public corridor in the southern Taiwanese city of Tainan that will replace a derelict shopping mall with a manmade lagoon.

It's been designed by international architects MVRDV and local firms The Urbanist Collaborative and LLJ Architects.

The development is centred around the abandoned China-Town Mall.

The city's natural lagoons and water network fed the marine and fishing industry up until the early 20th century. However, a period of land reclamation and urbanisation in the decades since saw this water-based tradition diminish. The architects plan to re-establish this connection and stimulate the redevelopment of the neighbourhood.

The connection with the waterfront will be recreated by the construction of a tree-lined pedestrian promenade linking the mall to Tainan's canals, and an artificial beach with views out to the sea.



A new public square will be centred around the lush, green artificial lagoon – created by flooding the mall's former underground car park. Dunes and playgrounds will be flanked by commercial units such as retail kiosks, a tea house and an art gallery. □

● MVRDV is redeveloping a derelict mall to create a promenade and lagoon



● A large lake crossed by the Skipping Stone Bridge is at the heart of the park

## Yongsan Park

Seoul, South Korea

West 8

A US army base in the centre of Seoul is being repurposed as a vast public park by Dutch landscape architects West 8.

The current Yongsan Park site is a walled, prohibited area cut off from the city. The US military agreed to withdraw in 2017, vacating 1,200 buildings. West 8 – who are collaborating with local firms IROJE Architects and DONG IL Engineering Consultants – envisions a park that is incorporated into the urban fabric of Seoul, while referencing the diverse topographies and landscapes of South Korea. □

## CLADcalendar

Conferences, networking  
events and trade shows  
for architecture and  
design professionals

## JULY 2018

4-7 July

**Archidex**

Kuala Lumpur, Malaysia

Southeast Asia's annual industry trade event for the architecture, interior design and building fraternity.

■ [www.archidex.com.my](http://www.archidex.com.my)

9-12 July

**8th Annual International  
Conference on Architecture**

Athens, Greece

Bringing together scholars, researchers and students from all areas of architecture.

■ [www.atiner.gr/architecture](http://www.atiner.gr/architecture)

## AUGUST 2018

30-31 August

**Stadia & Arena Asia-Pacific**

Osaka, Japan

Bringing together industry leaders in all aspects of sports venue design/build, management, operations and technology.

■ [www.saevents.uk.com](http://www.saevents.uk.com)

## SEPTEMBER 2018

6-15 September

**Paris Design Week**

Paris, France

Showcasing French design and the country's leading talents.

■ [www.maison-objet.com/en/paris-design-week](http://www.maison-objet.com/en/paris-design-week)

7-11 September

**Maison & Objet Paris**

Paris, France

The interior design and hospitality trade show.

■ [www.maison-objet.com](http://www.maison-objet.com)

12-16 September

**Habitare**

Helsinki, Finland

Furniture and interior design show established in 1970, running alongside Helsinki Design Week and ValoLight.

■ [www.habitare.fi](http://www.habitare.fi)

16-18 September

**The Hotel Show**

Dubai, UAE

Hospitality and leisure expo.

■ [www.thehotelshow.com](http://www.thehotelshow.com)

15-23 September

**London Design Festival**

London, UK

The annual London Design Festival promotes London as the design capital of the world.

■ [www.londondesignfestival.com](http://www.londondesignfestival.com)

19-22 September

**100% Design**

London, UK

The UK's largest trade event for architects and designers.

■ [www.100percentdesign.co.uk](http://www.100percentdesign.co.uk)

## OCTOBER 2018

6-8 October

**Global Wellness Summit**

Cesena, Italy

An invitation-only international gathering for leaders and visionaries from the global wellness industry.

■ [www.globalwellnesssummit.com](http://www.globalwellnesssummit.com)

10-13 October

**Saloni WorldWide Moscow**

Moscow, Russia

Russia edition of the famed Italian design fair.

■ [www.isaloneworldwide.ru/en/](http://www.isaloneworldwide.ru/en/)



17-18 October

**Architect @ Work**

Rome, Italy

Innovative building materials exhibition. The event is held in countries across Europe throughout the year.

■ [www.architectatwork.com](http://www.architectatwork.com)

17-18 October

**LEAF International**

Frankfurt, Germany

LEAF (Leading European Architecture Forum) International brings together architects, contractors, developers, engineers and supplier partners to learn about the latest industry developments and network with the entire industry supply chain.

■ [www.arena-international.com/leaf](http://www.arena-international.com/leaf)

17-19 October

**Hotel Investment Conference Asia Pacific (HICAP)**

Hong Kong

Annual gathering place for Asia-Pacific's hotel investment community, attracting owners, developers, lenders and professional advisors.

■ [www.HICAPconference.com](http://www.HICAPconference.com)

23-26 October

**World Waterpark Association Show**

Las Vegas, Nevada

Trade show and educational programme for water leisure professionals.

■ [www.wwashow.org](http://www.wwashow.org)

## NOVEMBER 2018

7-9 November

**HI Design Asia: The Decision Makers' Forum**

Bali, Indonesia

Hotel Interior Design Asia brings the decision makers from Asia's hotel design industry together.

■ [www.hidesign-asia.com](http://www.hidesign-asia.com)

12-16 November

**IAAPA Attractions Expo**

Orlando, Florida

The world's largest visitor attractions trade show and conference. Further events are held throughout the year.

■ [www.iaapa.org](http://www.iaapa.org)

13-16 November

**Media Architecture Biennale**

Beijing, China

Workshops, symposia, industry keynotes, academic talks and an exhibition exploring digital infrastructure and media architecture.

■ [www.mediaarchitecture.org](http://www.mediaarchitecture.org)

14-16 November

**Greenbuild**

Chicago, Illinois

Conference and expo dedicated to green building.

■ [www.greenbuildexpo.com](http://www.greenbuildexpo.com)

14-16 November

**MAPIC**

Cannes, France

Exhibition, conferences and networking events targeting all types of retail property.

■ [www.mapic.com](http://www.mapic.com)

22-24 November

**Salone del Mobile.Milano Shanghai**

Shanghai, China

The China edition of the famed Italian design fair.

■ [www.salonemilano.it](http://www.salonemilano.it)

28-30 November

**World Architecture Festival**

Amsterdam, Netherlands

The largest international gathering of architects, with awards, conference and exhibition.

■ [www.worldarchitecturefestival.com](http://www.worldarchitecturefestival.com)

28-30 November

**INSIDE**

Amsterdam, Netherlands

INSIDE shines a spotlight on the people, projects and developments that are changing the face of global interiors.

■ [www.insidefestival.com](http://www.insidefestival.com)

21-22 November

**Sleep**

London, UK

Sleep is Europe's hotel design, development and architecture event.

■ [www.thesleepevent.com](http://www.thesleepevent.com)

## JANUARY 2019

11-14 January

**MIDEX**

**Tehran, Iran**

The seventh edition of the architecture and design expo.

■ [www.midex.ir](http://www.midex.ir)

14-20 January

**IMM Cologne**

**Cologne, Germany**

Discover the trends shaping the furniture and interiors sector.

■ [www.imm-cologne.com](http://www.imm-cologne.com)

18-22 January

**Maison & Objet Paris**

**Paris, France**

The interior design and hospitality trade show.

■ [www.maison-objet.com](http://www.maison-objet.com)

29-31 January

**SPATEX**

**Coventry, UK**

The pool, spa and wellness show.

■ [www.spatex.co.uk](http://www.spatex.co.uk)

## FEBRUARY 2019

4-10 February

**Stockholm Design Week**

**Stockholm, Sweden**

The most important week in Scandinavian design.

■ [www.stockholmdesignweek.com](http://www.stockholmdesignweek.com)

19-22 February

**SibBuild**

**Novosibirsk, Russia**

Exhibition of building and finishing materials.

■ [www.sibbuild.com](http://www.sibbuild.com)

## MARCH 2019

5-7 March

**Ecobuild**

**London, UK**

Exhibition and conference for the construction and energy market.

■ [www.ecobuild.co.uk](http://www.ecobuild.co.uk)

6-9 March

**Design Shanghai**

**Shanghai, China**

Design Shanghai showcases international brands as well as China's top architects and interior designers.

■ [www.designshowshanghai.com](http://www.designshowshanghai.com)

12-15 March

**MIPIM**

**Cannes, France**

MIPIM gathers influential international property players from all sectors.

The event is held in various countries across the world throughout the year.

■ [www.mipim.com](http://www.mipim.com)

March (dates TBC)

**Megabuild**

**Jakarta, Indonesia**

Presenting the latest technology, solutions, materials and design trends.

■ [www.megabuild.co.id](http://www.megabuild.co.id)

## APRIL 2019

2-5 April

**MosBuild**

**Moscow, Russia**

Building and interiors trade show.

■ [www.worldbuild-moscow.ru](http://www.worldbuild-moscow.ru)

9-12 April

**Expo Arquitetura Sustentável**

**São Paulo, Brazil**

Sustainable construction expo for architects, builders and developers.

■ [www.expoarquiteturasustentavel.com.br](http://www.expoarquiteturasustentavel.com.br)

9-14 April

**Salone del Mobile.Milano**

**Milan, Italy**

One of the world's biggest design events, boasting more than 2,500 exhibitors, a display area of more than 270,000sqm and thousands of products making their debut, the Salone is the benchmark trade fair on an international level, attracting more than 400,000 visitors from as many as 165 countries.

■ [www.salonemilano.it](http://www.salonemilano.it)

## MAY 2019

May (dates TBC)

**Clerkenwell Design Week**

**London, UK**

Three days of exciting events celebrating design in the capital.

■ [www.clerkenwelldesignweek.com](http://www.clerkenwelldesignweek.com)



**GLOBAL WELLNESS  
SUMMIT 2018**

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the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.1 billion to 1.5 billion.

As the world's population grows, the demand for food and other resources will increase. This will put pressure on the environment and on the world's food supply. It is important that we find ways to meet this demand without harming the environment or the world's food supply.

One way to do this is to use sustainable agriculture. Sustainable agriculture is a way of farming that uses natural resources in a way that will not harm them. It uses methods that will not harm the environment and will not use up resources.

Another way to do this is to use sustainable development. Sustainable development is a way of developing the world's resources in a way that will not harm them. It uses methods that will not harm the environment and will not use up resources.

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# CLADbook 2018

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“It’s not just doing a building, it’s figuring out what power a building has to inspire change”

## JEANNE GANG

Studio Gang’s founder on rethinking the theatre and the aquarium

### What have you been working on lately?

We’ve recently opened a couple of projects, including the Writers Theatre in Glencoe, Illinois. The firm was up against quite a lot of well-known architects for the project, but I had a good synergy with the theatre’s artistic director, Michael Halberstam. We were challenging each other, really bringing it up to the top level.

### What did you like about this project?

I get excited about projects where an organisation is on the verge of change, and the Writers Theatre was one of those. The theatre group was operating out of the back of this tiny little book store, while their performances were becoming well known both regionally and nationally.

They were acting almost as a community centre, because people would come to their

performances and afterwards there was no place to have a conversation about the play or talk to each other. We were able to do a building that encourages this community.

They needed the architecture, the building, to help them get to the next level. I feel like Studio Gang is at its best when there’s a challenge like that, and we get to know the DNA of the organisation; what it is that they are going to become and how does the architecture help with that.

### What does New York’s American Museum of Natural History project mean to you?

Again, it’s trying to figure out the DNA of the organisation and what is needed. Our building, which is a new wing, is going to be one that mixes science and education and innovation all together. It’s so important for people to understand science. You’ve got people denying climate change. It’s a crisis.

### Can you talk about working with Baltimore’s aquarium?

Aquariums have been used to revitalise urban spaces for the past 30 years or so and the idea of National Aquarium, in Baltimore, Maryland, was to revitalise the inner harbour in the city. However, aquariums remaining within this entertainment venue model is really holding them back from being what they could be today. There are some people who are looking for different ways to evolve these institutions, but I feel that they are being held back by the business model, which prevents them from talking about subjects like climate change because they are afraid they are going to offend their paying guests.

The CEO of the National Aquarium really wants to make that transition. One of the first things he did when he joined the aquarium was stop dolphin performance shows and have the trainers interact with



the dolphins. People can watch if they want. Eventually, he realised he needed to get the dolphins out of there and into a sanctuary. We've been working with them for a number of years to make this transition.

It would be the first dolphin sanctuary that exists, so it's very complex. How do those animals survive? For example, if you do an oceanside sanctuary, they could be subject to hurricanes. There's been a lot of work going on around that right now.

### So research is very important to your approach?

Teaching, exhibitions and independent research is fuel for our projects. Studio Gang undertakes a lot of research and part of our research takes sometimes very tangent tracks from architecture. When we got into the ocean subject matter, that takes you in many different directions.

We are a group of people who are curious about the world and so we want architecture to resonate with its time and its place. It's like a lab collective. Sometimes our research projects are a competition, which takes you deeper into a subject area. There's design research, scholarly research and exhibitions that give you a chance to think about a subject.



A view of the Gilder Center at the American Museum of Natural History

### Career timeline

- 1964 Born in Belvidere, Illinois
- 1986 Received BSc Architecture from the University of Illinois
- 1993 Received Master of Architecture from Harvard
- 1995 Worked under Rem Koolhaas for OMA in Rotterdam, the Netherlands
- 1997 Established Studio Gang Architects
- 2011 Wins the MacArthur Fellows Program
- 2013 Wins the National Design Award
- 2016 Presented at the TEDWomen conference
- 2017 Wins the Louis I Kahn Memorial Award
- 2017 Wins Fellowship in the Royal Architectural Institute of Canada
- 2018 Elected International Fellow of RIBA

### How would you sum up what the role of architecture should be?

The role of architecture should be expanded. People can take different directions. Design has the ability to make manifest change in the world. It's not just doing a building, it's figuring out what power a building has to inspire change, and understanding what that building's potential could be.

I'll give you an example. We were asked to design a pavilion for the Nature Boardwalk at Lincoln Park Zoo in Chicago, Illinois, but when we started looking at the site

we realised it was along this picturesque 19th-century pond. When we saw it we realised there was much more to this than just the pavilion. Let's take over the pond itself. What if we conceptualised this to be something more than this dirty pond?

We realised it could be a stormwater reservoir, but also a much more biodiverse habitat. We looked at environment, water quality, and by redoing the pond it became a magnet for all kinds of plants and animals. It's this incredibly wild space in the middle of the city that now draws people. Without the architecture, it wouldn't be a magnet.

### How important is it that your work acts as a force for good?

That's the reason I work. The only projects we do are ones that can move forward in terms of community and wellbeing.

### Do you turn down projects?

At Studio Gang, we turn down projects all the time. We sit around the table every week and look at the projects coming in. Luckily we can choose right now. □

● Jeanne Gang was interviewed by Magali Robathan. Read the full article in CLADmag issue 2 2017 [www.cladglobal.com/archive](http://www.cladglobal.com/archive)



The stage at the Writers Theatre in Glencoe, Illinois



Urban wetland is planned for the National Aquarium, Baltimore, Maryland



Aqua Tower (left);  
the Nature Boardwalk  
at Lincoln Park Zoo

## Principal Works

2022

Arkansas Arts Center /  
Little Rock, Arkansas

2020

Gilder Center at the American  
Museum of Natural History /  
New York, New York

2020

Amsterdam Tower /  
Amsterdam, the Netherlands

2019

Vista Tower /  
Chicago, Illinois

2016

Writers Theatre /  
Glencoe, Illinois

2015

National Aquarium /  
Baltimore, Maryland

2010

Nature Boardwalk at  
Lincoln Park Zoo /  
Chicago, Illinois

2010

Aqua Tower /  
Chicago, Illinois

2004

Chinese American Service  
League Kam Liu Center /  
Chicago, Illinois





PHOTO: ALEX DE BRABANT FOR THE TALKS

“We are resilient creatures that want to gather,”

## DAVID CHIPPERFIELD

David Chipperfield on architecture in a changing Europe

### **How do you feel about architecture in the UK at the moment?**

In the past, the UK has not really nurtured its young architects. The commercial sector doesn't naturally go to young architects and give them a chance. If I was investing £30 million in an office building, I would tend to go for the safer choice too.

The European tradition is still more of a state system. There are more chances for young architects to win competitions. And the judges are not investors, but people from the city or from the education department who will see an interesting project, not see a financial risk.

However, I think in the UK young practices are getting a bit more of a chance. The talent is very strong. The profession has always been resilient and the younger generation has always been resilient. There has always been talent that has surfaced.

### **And how do you feel about the UK vote to leave the EU?**

It was one of the worst decisions ever made. When we have got so much to learn and so much to give to others culturally, building walls is just the daftest thing ever. All of the things that we can learn from our European colleagues are going to be abandoned. It's bad for the mind. It's bad for culture. It's going to be very bad for British architecture.

### **Do you see an issue in the erosion of public space by private developers?**

There is no doubt that in all European countries, the state is weaker than it was and private investment is stronger than it was. So even in a city like Berlin, now there is a lot of external money coming in.

The question is whether you can find some sort of balance between the energy and the gift that the investment gives and

the shape and the independent qualities that the city and its citizens enjoy. That balance is a very difficult one.

In London, I think that there is planning permission for a further 200 towers right now, and there are more applications in the pipeline. Those are money packets; it's not about building a city. They are still doing, one by one, projects that don't necessarily add up to anything.

### **Where should that overriding vision come from?**

In Europe, it will come from the city itself. There would be a preliminary project, with a number of different planning teams working together to come up with the buildings, the look, and so on. Through that process, which takes a few years, we get a consensual idea about what should be built and then there would be competitions for the buildings.



PHOTO: UTE ZSCHANN / DAVID CHIPPERFIELD ARCHITECTS

The Neues Museum, Berlin, which has been restored

### How would you sum up your philosophy of architecture?

That's a big question. I think as architects we work in two different modes.

One is the physical. It is material. It is light, it is a window. It is how to make spaces and places where you like to be. At the other end of the spectrum, architects are interested in societal issues. Building a nice building that doesn't stimulate how one sees the society is a bit weak.

Ideally, we like to bring these two things together. We would like to organise the physical things in a way that is nice and we would like to give it meaning by being purposeful in a societal way.

The danger is we're being encouraged more and more to do signature buildings, which are photogenic and look good in magazines. As I get older, I'm less interested in architecture per se. I'm more interested in the societal issues of architecture and

how we should be dealing with our cities, which I think we are leaving behind.

### Why is it important that leisure spaces in our cities are well designed?

They represent the things that connect us. Contemporary society tends to celebrate and exaggerate individualism – through media, through iPhones. But, we are resilient creatures that want to gather. It is our desire to be part of something.

Our cities used to be representative of those ambitions but gradually territory is being privatised. And therefore, in Britain, we do rely more on the private sector to make gestures towards the public, the civic.

### What has been the most exciting period of your career?

Now. For the first 10 years of your professional life, you're basically fabricating

something that's not very real. For the next 10 years you're trying to keep this thing afloat, and then for the following 10 years you're trying to do substantial works.

Today we have incredible talent and wonderful collaborators. It's not easy, but it's easier in the sense that at least I don't have to pretend to be an architect anymore. We have some credibility, which it is our responsibility to use.

My fear is whether we can optimise the enormous privilege we now have professionally. The worst thing that we could do would be to not live up to that.

But these really are good years. We have some phenomenal opportunities and I feel more engaged than ever. □

● David Chipperfield was interviewed by Magali Robathan. Read the full article in CLADmag issue 3 2017 [www.cladglobal.com/archive](http://www.cladglobal.com/archive)



Zhejiang Museum of Natural History in Zhejiang, China



Turner Contemporary in Margate, UK

## Selected Works

### Conversion of the former US Embassy

London, UK

The Eero Saarinen-designed former US Embassy in Grosvenor Square is being redeveloped into a hotel, spa and ballroom. Due for completion TBC

### Neue Nationalgalerie

Berlin, Germany

Refurbishment of Mies van der Rohe's Neue Nationalgalerie to address safety concerns and restore damaged parts of the original building. Due for completion 2019

### Nobel Centre

Stockholm, Sweden

Headquarters for the Nobel Foundation, featuring an auditorium, exhibits, a restaurant, bar and outdoor public space. Due for completion 2019

### Kunsthau Zurich extension

Zurich, Switzerland

A major extension to the Kunsthau Zurich, the new building will house a collection of classic modernism. A passageway underneath the square links the Kunsthau with the new extension. Due for completion 2019

### Zhejiang Museum of Natural History

Zhejiang province, China

Creation of huge 54,000sqm new complex for the Zhejiang Museum of Natural History, consisting of eight pavilions arranged around a central garden. Due for completion 2018

### Royal Academy of Arts renovation

London, UK

Renovation and reconfiguration of the Royal Academy of Arts, including gallery expansion, a new lecture theatre and a learning centre. Due for completion 2018

### The Bryant

New York, New York

Thirty-three storey tower in Manhattan, housing luxury apartments and a hotel. Due for completion 2017

### Saint Louis Art Museum expansion

Saint Louis, Missouri

The new wing extends from the original structure, with the same sandstone used in the 1904 museum. Completed 2013

### Museo Jumex

Mexico City, Mexico

The museum houses one of the largest private collections of contemporary art in Mexico. The building stands on columns and features floor-to-ceiling windows and skylights. Completed 2013

### The Hepworth Wakefield Gallery

Wakefield, UK

Gallery dedicated to the sculptor Barbara Hepworth. Completed 2011

### Turner Contemporary

Margate, UK

Gallery dedicated to JMW Turner and his contemporaries, made up of six glass buildings. Completed 2011

### Neues Museum

Berlin, Germany

Rebuilding the historic museum, badly damaged in World War II. Completed 2009

### River and Rowing Museum

Henley-on-Thames, UK

Galleries celebrating the River Thames and the sport of rowing. Completed 1997



Nobel Centre in Stockholm, Sweden

‘Architecture is something that transforms, something alive, something new and poetic’

# SANTIAGO CALATRAVA

Multi-disciplinary visionary architect Santiago Calatrava  
on being artist, technician, engineer and more

**Can you tell us about Peninsula Place – your £1bn residential towers, transport and leisure hub in Greenwich, London?**

This project is very important to me. There is such potential here. Greenwich is an area of architectural and industrial archaeology. From the top of the three 30-storey towers, you will see the most beautiful fluvial landscape and feel how vibrant London is.

The project appealed to me because for more than 35 years, 80 per cent of my work has been public buildings, and transport projects and bridges. Most architects would think carefully before taking on a project like this. I was no different, but I soon felt I could contribute something to this place.

I want Peninsula Place to be for people who don't usually have the opportunity to go to public places that are nice and beautiful. I want to make them feel: 'This is my place, and it's been made for me'.

The goal is to celebrate the area and deliver important things to the city, but also to humanise the building. If we achieve this, it will be like giving a concerto for someone hearing music for the first time.

## What inspired the designs?

The Greenwich Meridian Line. In Spain, if you're a 10-year-old kid you learn about El Meridiano and it seems fantastic. Now I am building there. I want to impress a child with this design and find elements that excite them. I want them to think, 'Wow, this is where the Meridian Line passes through.' Because that is an extraordinary fact that many people in London have forgotten. We want to recall these childhood ideas and memories, and give them form.

Therefore, the bridge and its vertical cable will create a sundial in a playful element that shows a kid that the shadow at noon goes always to the north side.

**Many of your buildings move – like the solar panel 'wings' on the Museum of Tomorrow's roof, in Rio de Janeiro, Brazil – or look poised to take flight. Why is this?**

From day one, movability has been important to me. It was the subject of my doctoral thesis. The industrial technology available today means we can create this sense that architecture is no more an aesthetic and firm thing, but rather something that transforms, something alive, something new and poetic.

When I speak to you, I am gesticulating with my arms and hands. When wind blows, trees move and water ripples. It's the same with my buildings. They are not static. By transforming, they can adapt with time and capture an instant.

For example, they react to the weather. With Peninsula Place, if it's cloudy and cold, I can close the roof of the Winter Garden.







## Greenwich Peninsula

According to developer Knight Dragon, Greenwich Peninsula is London's largest single regeneration project. The company is building 15,720 new homes in seven new neighbourhoods, wrapped by 2.6km of the River Thames.

A major film studio, a new design district, schools, offices, health services, public spaces and a 5km running trail are also being created. Architecture firm Allies and Morrison have masterplanned the £8.4bn project, and Marks Barfield, DSDHA, Alison Brooks, Duggan Morris and Skidmore, Owings & Merrill have all designed buildings there.



The Winter Garden (top) and Peninsula Place Bridge

## You have to build a sense of civic pride into neighbourhoods, otherwise you end up with dormitory towns

The gateway to Greenwich Peninsula, Santiago Calatrava's Santiago Place "signals the intent and ambition for this district." Knight Dragon is spearheading the development with the Greater London Authority and Transport for London.

Knight Dragon chief executive Richard Margree says: "Arts and culture is embedded in everything, including the buildings. That was the particular appeal of choosing Calatrava to design Peninsula Place, with his artistic, engineering and architectural background.

"Creating a community doesn't come about because people write it on a master plan. You've got to passionately believe in it. You have to build a sense of civic pride into neighbourhoods, otherwise you end up with dormitory towns. Everybody who visits here, lives here and works here is welcome in the public spaces we're creating."

If it's sunny, I open it. It's like an old friend told me: if you don't like the weather in London, wait 10 minutes for it to change.

## Do you consider yourself foremost an architect or engineer?

For me, it's about how I can use engineering in a way to signify a place. This is the way I have been with building with technology. I use it to push the limits of expression.

The possibilities of technology are fascinating because we can trust it. People hang in single-cable cable cars every day, and they are relaxed. They go in an elevator in a tall building, but they have no worries. Technology can move us towards a new architecture. You know, there is no difference between art and technique, nor between architecture and engineering. Both serve the art of construction.

An engineer uses technique, which comes from the ancient Greek word *techniki*. But the Greeks also have the word *téchni*, meaning art. The worker – *tektón* – has a skill, which is used to achieve art.

## How do you feel about the criticism sometimes levelled against you?

I'll tell you a brief story. At the age of 82, when he was completely deaf, Francisco Goya, the great Spanish painter, left Spain and went in exile to Bordeaux, France.

Then, suddenly, he moved to Paris, where nobody knew him and where he could only communicate by writing in Spanish. Even the French culture minister asked why this man had moved there. Well, he went there, deaf and alone, to learn photography.

From around this time there is a small drawing by Goya of an old man, bent over with two walking sticks. It is titled *Aun aprendo*. It means, 'I am still learning'. □

● Santiago Calatrava was interviewed by Kim Megson. Read the full article in CLADmag issue 2 2017 [www.cladglobal.com/archive](http://www.cladglobal.com/archive)



Peace Bridge, Calgary, Canada



Samuel Beckett Bridge, Dublin, Ireland

## Bridges of Calatrava

### Margaret McDermott Bridge

Dallas, Texas • upcoming

### Crati River Bridge

Cosenza, Italy • upcoming

### Peace Bridge

Calgary, Canada • 2012

### Margaret Hunt Hill Bridge

Dallas, Texas • 2012

### Samuel Beckett Bridge

Dublin, Ireland • 2009

### Ponte della Costituzione

Venice, Italy • 2008

### Chords Bridge

Jerusalem • 2008

### Three bridges

Reggio Emilia, Italy • 2007

### Petah Tikva Footbridge

Petah Tikva, Israel • 2005

### Harp, Cittern and Lute Bridges

Haarlemmermeer, Netherlands • 2004

### Sundial Bridge at Turtle Bay

Redding, California • 2004

### James Joyce Bridge

Dublin, Ireland • 2003

### Women's Bridge

Buenos Aires, Argentina • 2001

### Puente del Hospital

Murcia, Spain • 1999

### Campo Volantin Footbridge

Bilbao, Spain • 1997

### Trinity Bridge

Greater Manchester, UK • 1995

### Alameda Bridge

Valencia, Spain • 1995

### Mimico Creek Bridge

Toronto, Canada • 1994

### Lusitania Bridge

Mérida, Spain • 1992

### Alamillo Bridge

Seville, Spain • 1992

### Bac de Roda Bridge

Barcelona, Spain • 1987



Sundial Bridge, Redding, California



“As a designer, you have the gift to add fun and value to people’s lives,”

## MARCEL WANDERS

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The multi-disciplinary Dutch designer on rejecting minimalism and embracing chaos

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**You transitioned from product to interior design. What characteristics of product design do you bring to your interior work?**

I realised that if I designed interiors in the same way as I designed products, they would be super boring. My ideas about product design were very conceptual. With product design, I was always looking for a great idea and I followed that one idea until it was expressed in the best way possible.

When it comes to interior design, however, the rules are different. A product needs only one idea, but an interior needs 1,000 ideas and all of them have to speak to each other and intertwine. That is not to say that interior design always takes more time and energy than product design. In fact, it can take longer to make sense of an object – designing a teaspoon can be more difficult than designing a house.

**What is your starting point when designing an interior?**

I think the physical design of a space comes quite late in the process. The first thing you build is the proposition. What is the idea? How can you bring the unexpected to people’s lives? Maybe you want to eat cupcakes on a skating rink, or put a barbershop in a bright pink room. People choose whether they do these things in a boring place or an exciting place. As a designer, you have the gift to add fun and value to people’s lives.

**You’ve spoken previously about your dislike of minimalism. Can you explain why?**

If you love design enough to give your life to it, then why would you try to design as little as possible? I want to create things that show my love, my respect, my interest in the world, my understanding of human

behaviour. In my design studio, we have a motto: give more than people expect.

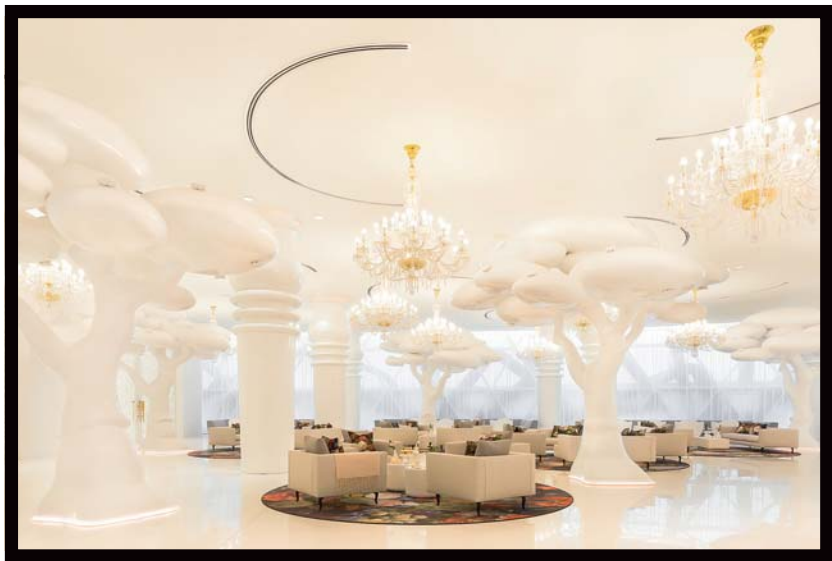
**Is there much crossover between the role of the architect and the interior designer?**

Architecture is a great profession, but I do think architects have given away a bit too much. Many have decided that an interior is irrelevant. Glass windows and concrete floors are the perfect example of the modernist ambition. That has left space for the birth of interior design – because people cannot live in a house which doesn’t have a feeling of warmth and love.

**Can you explain the importance of surrealism and fantasy in your work?**

As a designer you have a tool box, and the tools you have to play with include size, scale, materials, colour, historical context.





Wanders designed Mondrian Doha's interiors

There are limitless opportunities to use these to make a really different design.

I think modernism has decided that a lot of these tools are superfluous and shouldn't be touched. They say a space must be honest; you cannot lie about what it is. But lying is one of the most beautiful parts of the tool box. You can make something look like something it is not. A lamp can be disguised as a horse! Why not?

**You have worked for hotels across the world. How important is creating a sense of location?**

A hotel has to reflect exactly where it is, yet you are not making a truly authentic work because it should also be new and unique. You have to tap into the atmosphere, the culture, the colours, the ideas of the place. You have to love the people, talk to them, read what they read,

breathe the air that they breathe, eat with them and understand them.

**Some of your clients have been sheikhs. What have those relationships been like?**

I've travelled in the Middle East and met important people in the region. The ones I've met have a true interest in others and a true interest in doing projects that add value. They're not trying to hide their ambition. They don't want to do something unless it's exceptional.

**So you think investors are too conservative in Europe?**

It's not my rule in life to critique other people, but I'll say that I'm super happy when I find people who have true ambition. I want to do more than people expect, and I cannot do it on my own. That's something

I've always felt working in the Middle East; I love the ambition that energises the region.

**Do you have a favourite hotel?**

I think the Oberoi Amarvilas in Agra, India, is probably the hotel that I will always go out of my way to stay in. The attention to detail there is from a different world.

**What's your design philosophy?**

I believe it is my task to connect with my audience. I exclude no one. I challenge myself to be a connoisseur of all areas and to be inspired without frontiers. I steer my own path, but I'm open to everything. Surprise is always fun. □

● Marcel Wanders was interviewed by Kim Megson. Read the full article in CLADmag issue 4 2017 [www.cladglobal.com/archive](http://www.cladglobal.com/archive)

## Rooms of Wanders



### Mondrian Doha / 2017

The famous Middle Eastern folk tales of *One Thousand and One Nights* inspired this lavish dome-topped hotel in Doha, Qatar. The public spaces include a nightclub, rooftop pool and skybar, and a huge wedding ballroom, which brides can enter via a 24-karat gold sculpted caged elevator



### Andaz Amsterdam Prinsengracht / 2012

A former public library building in the heart of the Dutch capital was transformed into a five-star boutique hotel for Hyatt Hotels. The design scheme and furniture reference the Dutch Golden Age and Delft ceramics. Elements include oversized bells, tulip chairs, ancient nautical maps and a secret garden



### Grand Hotel Portal Nous / 2017

Nestled on a Mallorcan beach, Spain, this Iberostar hotel has been designed to emphasise the spectacular scenery. There are 66 rooms, four penthouse suites, five themed suites and an eye-catching gym and spa, with a secret garden and a cascading pool outside



### Mondrian South Beach / 2008

Conceived as Sleeping Beauty's castle with a panoramic view over Biscayne Bay in Miami Beach, Florida, the 342-room hotel welcomes guests "into a magical world" with unexpected design features such as manga faces, oversized brass chandeliers and a floating metal staircase in the lobby



### Kameha Grand Zurich / 2015

This five-star LH&E Group hotel celebrates the heritage of Switzerland. The lobby boasts a matelassé white wall covered with golden hotel keys and a grand staircase. Rooms feature chocolate-inspired wall panellings, bank vault mini-bars and Toblerone-shaped sofas



### Lute Suites / 2005

Across seven individual 18th century cottages, Wanders created home-like settings complete with modern and classical décor. Bespoke objects and furniture made each suite unique and were designed to offer guests "a more personal and meaningful experience"

“We’re interested in being subversive  
and always questioning things,”

## LYNDON NERI

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Neri & Hu’s co-founder on hospitality design and changing attitudes in China

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### How would you sum up Neri & Hu’s philosophy?

We’re interested in being subversive and always questioning things. We deal with the notion of blurring the public and the private, the old and new. We’re constantly challenging the refined and the rough. People need these contrasts to understand and appreciate differences in society.

### What are your thoughts on hotel design?

The problem with hotels today is that guests just go into their rooms and close the door. They ask if the light is okay, if the stationery is nice. They crave comfort; there’s no sense of questioning what’s there. It’s all about providing luxury in a decorative way – better wall coverings, a beautiful chair. Those are good, but they’re not enough.

We like to question what’s taken for granted. I often wonder whether the

privacy of the hotel bedroom should be truly respected, for example. Could the room be open, so that natural light can filter down from above and hotel guests don’t always have to turn on the light when they are in their rooms?

Hoteliers will tell you that hotel bedrooms need to be totally blacked out. Nowadays, with blackout curtains, we sometimes don’t wake up until 11am; then at night we can’t sleep so we take sleeping pills. We are becoming abnormal beings.

I also think that maybe our notion of personal space should be challenged. We’re trained to think that we need to be separate. For example, when we come home from work, we close our front doors, we make sure we have our privacy. But I think that we need to feel like we’re part of a community. I think sometimes that this celebration of isolation makes us insular – and I think that’s dangerous.

### How would you sum up the architectural scene in China?

There’s a growing seriousness. Younger generations are leaving the country earlier. Some parents send their children to prep school abroad because they understand that for China to be a significant player, their children have to be engaged with the world and learn the language and culture.

Simplicity is no longer seen as a bad thing in China. Preserving the old and trying to understand context are no longer seen as negative. It’s not just about building bigger, shinier buildings. Another change is people aren’t just interested in the city now; a lot of people are going back to the provinces.

### Le Meridien hotel in Zhengzhou was a major project for you. How did that come about?

We were asked to do the interiors for a building that was, in my opinion,



commercial looking and hideous. I respectfully said: 'If you want us to do that, we're not the architects for you'.

The client was shocked. He had already poured the foundation. I said, fine, we won't change the structural formation or the floor area ratio, but allow us to change the way it is seen. The building was so nondescript, it could have been anywhere. We wanted to design something modern but contextual.

We were inspired by the idea of the mountains and the cave people of Zhenzhou. The design of the building features a series of glass boxes; the idea is that they are archival boxes that contain the history of the area. The atrium was inspired by the historic Longmen Caves nearby. We wanted to reflect that history, and that's how the large, cave-like atrium came about.

### Can you tell us about the hotels you are designing for Ian Schrager?

We're working on three projects for Ian Schrager in China – Edition hotels in Shanghai, Wuhan and Xiamen.

The Shanghai hotel will celebrate the city's Art Deco history. It's in a property of that period; Schrager wants to refurbish the building and make sure that the decadence and the play of material will be glorified.

### What else are you working on?

We're working on a Louis Vuitton hotel in Miami's Design District, Florida. It's an interesting project because it celebrates the home and questions the notion of domesticity. Each of the rooms is like a little house inserted into the shell of the building.

We're designing a beautiful 19 room resort in the mountains of Moganshan, not far from Shanghai. We're also designing a six room villa resort in the mountains of Wenzhou. We're building the architecture

and space out of the local river rocks. We're working with Alila on the brand's first city hotel, in Malaysia. And we're designing a hotel in Shanghai for Thai brand Sukhothai.

### What will the next 10 years bring for Neri & Hu?

We've been concentrating on designing buildings in the city for a long time, but now people are approaching us to do projects outside the city. We're exhilarated

by this. We currently have five or six projects in the villages or in the mountains.

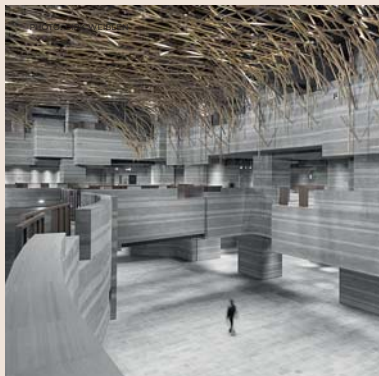
We're also international. People are approaching us to do projects in Europe, and we now have a London office. We're very excited and positive about the future. □

● Lyndon Neri was interviewed by Magali Robathan. Read the full article in CLADmag issue 2 2017 [www.cladglobal.com/archive](http://www.cladglobal.com/archive)



Le Meridien Zhengzhou, in Zhengzhou, China





The Hub Performance Centre, Shanghai



New Shanghai Theatre, Shanghai

## Selected Projects

### New Shanghai Theatre

Completed in November 2016, this project saw Neri & Hu revive an old 1930s Shanghai theatre with bronze and stone details. Neri & Hu sought to restore the original character and grandeur, which had been stripped away by a series of insensitive renovations

### Le Meridien Zhengzhou

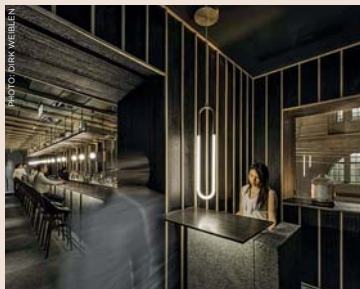
For this project, Neri & Hu came up with the concept of the building as an 'archive' of new and old objects for travellers to discover. Each of the cantilevered stacked boxes that make up the exterior represents an archive, with local history and culture represented internally by artworks, the materials used and the layout of the spaces

### Chi-Q, Shanghai

Owned by chef Jean-Georges Vongerichten, the Chi-Q Korean restaurant is in Shanghai's historic Three on the Bund building. Neri & Hu were responsible for the interiors and used dark colours, charcoal wood slats and dramatic lighting. The atrium houses a communal dining table, with other diners eating in half sunken seating banquettes

### The Hub Performance and Exhibition Centre, Shanghai

Completed in 2015, the Performance and Exhibition Centre is part of The Hub mixed-use complex in Shanghai. It was designed by architect Ben Wood, with Neri & Hu responsible for the interiors. The



Chi-Q restaurant at Three on the Bund, Shanghai

design was influenced by natural landscapes, particularly forest canopies and rock formations

### Xi'an Westin Museum Hotel

In China's ancient capital, Neri & Hu designed a 300-bedroom hotel for Westin that is modern, but references the historic architecture of the area. The exterior is clad in dark stucco and stone; inside

wooden slatted canopies allow light into the interiors

### The Waterhouse, Shanghai

The Waterhouse is a four-storey boutique hotel built into a Japanese army headquarters building from the 1930s in Shanghai's South Bund district. The lobby features the original concrete and brickwork, creating a 'rough and raw' feel



6 Architecture can only thrive  
in a democratic environment 9

## DANIEL LIBESKIND

The renowned architect reflects on the defining museum projects of his career

**You're working with paleoanthropologist Richard Leakey on a museum about human evolution. What can you tell us?**

The museum is one of the most exciting projects I've worked on. When I met Richard to discuss it, there was not a question in my mind that I wanted to be involved. He's a visionary and not many architects are lucky enough to work with a genius like him.

The site, on the banks of Lake Turkana in the Kenyan desert, is unlike any other place. It's got a beautiful range of mountains, the desert, the lake, there's no light pollution so you can see all the stars. My idea was to connect the building to that earth and that sky, because it is all interconnected in the greater story of humankind.

**What challenges do you foresee?**

The challenges are huge – how to present that entire history through a spatial

experience. And it is not just a standalone building; it is a developing city. It's 400 miles north of Nairobi, near the border with Ethiopia. There's oil, a growing population. It's a seed of a city, which will develop.

**The Jewish Museum in Berlin – its zigzagging plan evoking a broken Star of David – still has the capacity to shock. How did you reach this idea?**

The idea for the design struck me suddenly, like a lightning bolt, the first time I visited the site. I realised that in the houses and apartments next to this Baroque building, Jewish Germans had once lived. And because they were erased from the history of the city, along with many others – the Romani, political prisoners, the infirm, the sick – I sought to construct the idea that this museum is not just a physical piece of real estate. It's not just what you see with your

eyes now, but what was there before, what is below the ground and the voids left behind.

I needed to explain, through the design, what Berlin once was, what it now is and what it can be in the future. It's not some redemptive thing and equally it's not a finished story. It's a museum that provokes thought and imagination, and I think that is my function as an architect.

**Memory Foundations, your master plan for Ground Zero, and the World Trade Center in New York, has been a long and complicated journey. Would you take on another project like that?**

Look, my first project was the Jewish Museum and I won the competition in 1989. That building, believe it or not, was to open 11 September, 2001. That day, I told my colleagues how I was happy that I didn't really have to think about the museum any



An aerial view of the Jewish Museum in Berlin, Germany



**You have to build a sense of civic pride into neighbourhoods, otherwise you end up with dormitory towns**

more. And of course, the news of the attacks in New York came in. The museum opening was delayed for three days. I realised you can never know what history is.

**The process became contentious, but how do you feel now?**

The result is fantastic. It's very close to my drawings. I was very practical in the way I planned it. I didn't compose a mega structure. I proposed to put the buildings on the periphery of the site and make the most of the public space and put the buildings in a descending series, from Freedom Tower, Tower Number One, 7076, down to building number four. That is what has happened.

When I moved to New York from Berlin to start the project, Lower Manhattan was empty. People didn't build, office buildings were being given away for free, people left their belongings and never wanted to come back. Now, quarter of a million people have moved there as a result of us creating a public space that has a dignity and interest.

We were criticised in the newspapers. Every day, somebody was photographing the garbage we threw out, trying to find a story. You need a thick skin. But I grew up in the Bronx; people there don't give up easily.

**Is that resilience something you learn on the job?**

You have to have a collaborator. I've been so lucky to have a collaborator in my wife, who shares my values and has always supported what we're doing. She has worked with me running Studio Libeskind since the beginning. We've been married for 48 years. She is a fantastic chef. We end almost every night with a three course meal at home and a bottle of wine. She's not an architect, but believe me, she is a much harsher critic of my work than *the New York Times*. □

● Daniel Libeskind was interviewed by Kim Megson. Read the full article in CLADmag issue 4 2017 [www.cladglobal.com/archive](http://www.cladglobal.com/archive)





Kurdistan Museum, Erbil, Kurdistan



Modern Art Museum, Vilnius, Lithuania

## Libeskind's Museums

### Kurdistan Museum Erbil, Iraqi Kurdistan

Expected opening: TBC

A planned museum dedicated to Kurdish culture and the horrors of Saddam Hussein's genocidal attack on the Kurds in the 1980s

### Human Evolution Museum Lake Turkana, Kenya

Expected opening: TBC

Early sketches show a footprint that echoes the shape of the African continent. A cluster of buildings, including a chamber

of humanity, a planetarium and a dinosaur hall. The museum will be built using traditional Kenyan construction methods and materials

### Amsterdam Holocaust Memorial Amsterdam, Netherlands

Expected opening: 2019

### Modern Art Museum Vilnius, Lithuania

Expected opening: 2019  
Dedicated to the modern

Lithuanian artists, the museum will feature a new public piazza, interior courtyard and a dramatic staircase leading to a public planted roof and sculpture garden

### Zhang Zhidong and Modern Industrial Museum Wuhan, China

Expected opening: 2018

### Military History Museum Dresden, Germany

Opened: 2011

### Contemporary Jewish Museum (extension) San Francisco, California

Extension opened: 2008

### Royal Ontario Museum (extension) Toronto, Canada

Extension opened: 2007

The extension is known as the Michael Lee-Chin Crystal and it's inspired by the crystalline forms in the museum's mineralogy galleries

### Denver Art Museum (extension) Denver, Colorado

Extension opened: 2006

The Frederic C Hamilton Building, which doubled the size of the facility, serves as the main entrance to the rest of the museum. The design was inspired by the sharp angles of the nearby Rocky Mountains.

### Danish Jewish Museum Copenhagen, Denmark

Opened: 2004

### Imperial War Museum North Greater Manchester, UK

Opened: 2002

### Jewish Museum Berlin Berlin, Germany

Opened: 2001

When the museum opened, there were no exhibits inside, but visitors still flocked in their hundreds of thousands, drawn by the building's emotive, visceral, divisive design



Royal Ontario Museum, Toronto, Canada



“If BIG had been founded for one single building, it would have been this one,”

## BJARKE INGELS

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The Danish architect on Lego and Lego House and the culture at BIG

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**Lego House recently opened in Billund, Denmark. What did that project mean to you?**

If BIG had been founded for one single building, it would have been this one. It's such a joyful exploration of all of the different potential expressions of Lego.

Like any Dane, I grew up with Lego. What's unique about Lego as a toy is that it's actually not a toy, it's a vehicle for systematic creativity that enables the child to create its own world and then to inhabit that world through play.

As architects, we have the ability to build the world we'd like to live in. The sense of empowerment that architecture can give when it's working well is the same kind of empowerment that Lego gives a child.

**What's the team like at BIG?**

Of course I founded the company and I'm the creative leader, but I've never

kept it a secret that I work with great, gifted people. Of the partners at BIG, about half of them were interns in the early days of the company, so we've been together for a ridiculously long time. We've developed a culture through friendship and collaboration that's very strong.

**So you wouldn't agreed when you're sometimes portrayed as a kind of lone genius?**

The truth is that collaboration is about collective effort and it's also about individual contribution – so both are actually true. There wouldn't be any BIG without all the 'BIGsters'.

I don't see that there's a dichotomy. Has Steven Spielberg made you think that he's the only one contributing to his films? Not really. But, of course, he's the director and he also consistently manages

to put together a team that can deliver something that other directors don't.

**What challenges have you faced as a firm?**

We launched BIG in 2005 and we were doing some big projects, like 8 House complex in Copenhagen and the Danish Maritime Museum in Helsingør. But by the fall of 2007, we were going down. I took control of our finances for a year, let go of 35 people, cut down everything I could, including lunches and our cleaning services, borrowed some money and managed to turn the company around.

After that I hired Sheela Maini Søgaard, who is now a partner and CEO of the firm. Sheela has a really healthy confrontational attitude. She started phoning late payers, getting them to cough up. Where architects are typically overly optimistic, Sheela has a healthy scepticism. We needed that.





TIRPITZ Museum opened in Blåvand, Denmark, in 2017

**The culture at BIG – which includes parties, a ‘BIG band’ and even cycling trips over the Andes – is well known. Did you set out to create this?**

It’s not an agenda, it’s more a question of how you’d like to lead your life. Architects tend to work long hours, but even working a normal day is still half your waking hours, so you’d better have a good time doing it.

It’s not just about the parties though.

If you put a lot of like-minded, energetic, passionate, brilliant, creative people in a room with some fascinating problems to solve and a big deadline at the end, it’s

practically like a party. So even without intoxicating substances, it’s a blast.

**Why did you decide to relocate from New York to Copenhagen?**

The last few years have been dominated by America, but there’s no doubt that Europe is back at full throttle. I’m keen to spend a few years focusing on opportunities in Europe. We’ve got plenty to be excited about. □

● Bjarke Ingels was interviewed by Magali Robathan. Read the full article in CLADmag issue 4 2017 [www.cladglobal.com/archive](http://www.cladglobal.com/archive)

“

**If you put brilliant, creative people in a room with some problems to solve and a deadline, it’s practically like a party**

## Key dates

2001

Bjarke Ingels launches PLOT with Julien De Smedt

2005

Ingels launches the Bjarke Ingels Group in Copenhagen

2009

BIG becomes a partnership with eight partners: Bjarke Ingels, Sheela Maini Søgaard, Kai-Uwe Bergmann, Andreas Klok Pedersen, David Zahle, Jakob Lange, Finn Nørkjær and Thomas Christoffersen

2010

BIG opens its New York office

2014

Research and development lab BIG ideas is born

2015

BIG appoints four new partners: Beat Schenk, Daniel Sundlin, Jakob Sand and Brian Yang

2016

BIG’s London office opens in Kings Cross

2017

BIG launches its own in-house engineering, landscape, interior and space planning department

Coming Soon...



### The theatre will be both stage and actor in the city of Tirana

– Bjarke Ingels

The National Theatre of Albania is a three-in-one cultural venue shaped like a bow tie. Designed in collaboration with British consultancy Theatre Projects, the venue has been commissioned to host local and touring theatre companies



### Like a collective campus rather than a monolithic stadium

– Bjarke Ingels

East Austin District is a sports and entertainment neighbourhood in Texas sheltering stadia and arenas under a dramatic chequered roofscape. The roof's design is inspired by Thomas Jefferson's grid system for dividing America's fields, forests and towns into square-mile sections



### Cascading work environments connecting Googlers across multiple floors

– Bjarke Ingels

A scheme for Google's headquarters has been designed by Heatherwick Studio and BIG. The 11-storey 'landscaper' proposal will be the first wholly owned and designed Google building outside the US



### The panda enclosure is the new rotation point for the zoo

– Bjarke Ingels

Copenhagen Zoo's new panda enclosure will be shaped like an enormous yin-yang symbol, half for the female and half for the male panda. The habitat features bamboo, trees, rocks, logs, waterfalls, pools and streams



### Collective commuting, individual freedom, near supersonic speed

– Bjarke Ingels

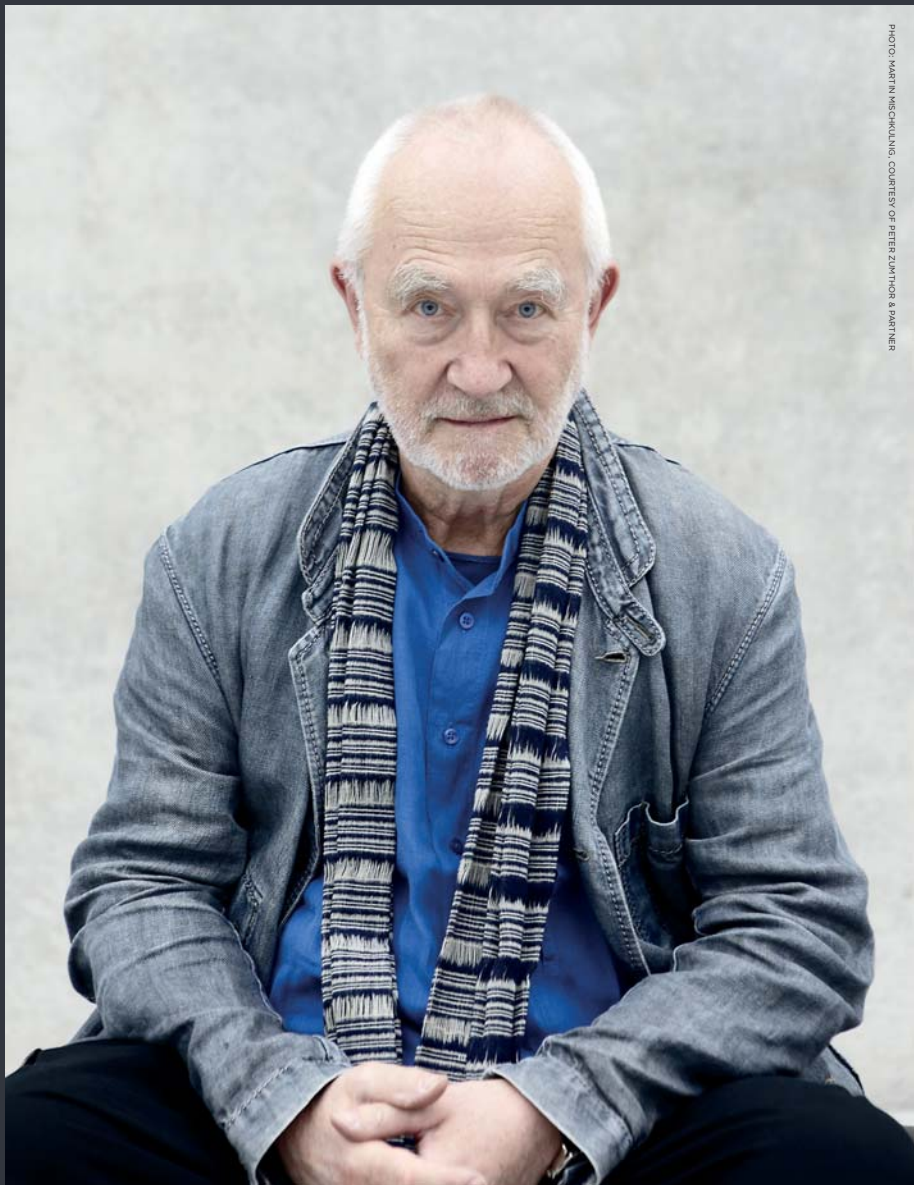
BIG and Virgin Hyperloop One, the world's first Hyperloop high-speed transport system, are pursuing a passenger and cargo network in the United Arab Emirates. BIG designed the system's stations, control centre and pods



### A lively urban fabric that combines radically different streetscapes

– Bjarke Ingels

EuropaCity is a huge development on the outskirts of Paris covering more than 300,000sqm offering a mix of retail, culture and leisure





“I want to make buildings that have the capacity to be loved, that’s all. Nothing special,”

## PETER ZUMTHOR

In a rare interview, the Swiss architect talks about  
LACMA and the role of emotions in his work

**How did it feel to be chosen to design an extension to Renzo Piano’s Fondation Beyeler Art Museum in your home town of Basel?**

This is beautiful. It warms my heart to be designing in the town I come from.

**How did you get interested in architecture?**

In my youth, it was buildings like my father’s house, the first movie theatre I went to, churches, railway stations. I was experiencing architecture before I knew it was architecture. I think it’s so important where we grow up. It shapes our relationship to the world.

When I started in my father’s shop as a cabinet maker at the age of 20, I wouldn’t have dreamed of being an architect. This was far away from my thinking, and my family’s thinking. My father once confessed

to me that he would have liked to have been an architect, but his mother had told him that they had no money and he had to work.

**How do you decide which projects to work on?**

I’m not driven by commercial opportunity. We’ve had times with little money, but I never suffered from that. I never had any serious money problems in my life, I’ve been lucky in that respect. Personally, I don’t need a lot of money – maybe for good wine.

You shouldn’t take architecture as a business. You should take it by its core: to make beautiful buildings, to be used well.

**Can you tell us about your inspiration for the LA County Museum of Art (LACMA)?**

LACMA is basically an encyclopaedic museum of art. This means it has a web of objects and paintings. Many of these things

were not made for the museum. They have lost their contacts, these objects; you could say they are homeless. I’m creating a new home for the homeless objects where they can feel good in their new surroundings.

I trust the beauty of the object; I trust that they are telling me something. I’m interested in the feeling of history; the fact that there have been generations of people before me and they have made these beautiful objects, and now they have come to me. I hear the curators talking about them, but I trust the beauty of the objects first because explanations change.

**What is the visitor experience like?**

The museum is not organised by timelines, periods or geography. It’s organised like a forest with clearings inside, where we freely choose to go to this clearing or the next. I’d like to allow an experience of art where people can go and look at the art without



Zumthor is designing a new home for the LACMA collection

didactics, without premature explanations, and make their own experience.

The museum is open to the outside; this is very important. You'll have this almost sacred, sublime kind of experience, but I would also like to accommodate the profane, the dirty, the normal, the everyday.

You start on the ground and as you go up you are received in a beautiful, big palace for the people. From there you go to the museum clearings, where you have the more intimate and private experiences of art.

**You've said that your ultimate goal is to 'create emotional space'. How do you do this?**

I love buildings. When I look back on my life I love the buildings that speak to me by means of their atmospheric qualities, by means of a feeling of history, of being complete. This is something basic in life. I look at a person and it's nice if I could like or love them. It's a beautiful feeling when I discover that this is a nice relationship. It's how I experience buildings. In that I'm not alone – everyone shares this idea. I want to make buildings that have the capacity to be loved, that's all. Nothing special.

**How do you make those buildings?**

There are many levels. As an architect you have to follow the technical levels, the

urbanistic levels and so on, but the most important is probably a beautiful unity of use, atmosphere, space. So that the kitchen of my mother looks like the kitchen of my mother and not like something strange. It's about the real thing. That's what I go for.

I don't treat the profession of architecture as a profession of arranging and inventing forms. The things I want to do need a form, so I give them this form. I'm extremely sensitive to things that don't work.

Many people see what's ugly and doesn't work in the world. I have skills and talent

[to design things that do work]. That's a gift. Like Roger Federer plays tennis, that's a gift.

**What's your dream commission?**

I'd like to build on the seashore. I've done things with the mountains, but not the long horizon of the sea. I like the water, the expanse. It makes me quiet. □

● Peter Zumthor was interviewed by Magali Robathan. Read the full article in CLADmag issue 1 2017 [www.cladglobal.com/archive](http://www.cladglobal.com/archive)

**Career timeline**

- 1943 Born in Basel, Switzerland
- 1958 Worked as a carpenter's apprentice
- 1963 Attended the Kunstgewerbeschule art school in Basel
- 1966 Studied industrial design and architecture at Pratt Institute, New York
- 1968 Worked as a conservationist architect in Graubünden, Switzerland
- 1978 Set up his own practice with his wife in Graubünden
- 1994 Elected to the Academy of Arts, Berlin
- 1998 Wins the Carlsberg Architectural Prize
- 1999 Wins the Mies van der Rohe Award for European Architecture
- 2008 Awarded Praemium Imperiale
- 2009 Wins the Pritzker Architecture Prize
- 2012 Awarded the RIBA Royal Gold Medal
- 2017 Awarded the Association of German Architects Grand Prize



Kolumba Museum in Cologne, Germany



Kunsthaus Bregenz in Bregenz, Austria



Therme Vals in Vals, Switzerland

## Principal Works

2016

Zinc Mine Museum  
Allmannajuvet  
Sauda, Norway

2013

Werkraumhaus  
Andelsbuch, Austria

2011

Steilneset, Memorial  
for the Victims of the  
Witch Trials in Vardo  
Finmark, Norway  
Serpentine Gallery Pavilion  
London, England

2009

Log houses for Annalisa  
and Peter Zumthor,  
Unterhus and Oberhus  
Vals, Switzerland

2007

Kolumba Art Museum  
Cologne, Germany  
Bruder Klaus Field Chapel  
Wachendorf, Germany

2005

House Zumthor  
Haldenstein, Switzerland

2002

House Luzi  
Jenaz, Switzerland

2000

Swiss Sound Box, Swiss  
Pavilion, Expo 2000  
Hanover, Germany

1997

Kunsthaus Bregenz  
Bregenz, Austria

1996

Spittelhof Estate  
Biel-Benken, Switzerland  
Therme Vals  
Vals, Switzerland

1994

Gugalun House  
Versam, Switzerland

1993

Homes for Senior Citizens  
Chur, Switzerland

1988

Sogn Benedetg Chapel  
Sumvitg, Switzerland

1986

Zumthor Studio  
Haldenstein, Switzerland  
Protective Housing for  
Roman Archaeological  
Excavations  
Chur, Switzerland

the 1990s, the number of people in the world who are under 15 years of age is expected to increase by 1.5 billion.

As the world's population grows, the demand for food and other resources will increase. The world's population is expected to reach 9 billion by the year 2050. This means that there will be 9 billion people competing for the same resources that we have today. This is a huge challenge for the world's leaders and citizens.

One of the most important ways to address this challenge is by increasing the world's food production. This can be done by using more efficient farming techniques, such as precision agriculture, and by increasing the number of people working in the agricultural sector. This will help to ensure that there is enough food to feed the growing world population.

Another important way to address this challenge is by reducing the world's consumption of resources. This can be done by using more sustainable practices, such as recycling and reducing waste. This will help to ensure that there are enough resources to go around for everyone.

Finally, it is important to ensure that the world's resources are distributed fairly. This can be done by implementing policies that support the poor and the vulnerable. This will help to ensure that everyone has access to the resources they need to live a decent life.

These are just a few of the ways that the world's leaders and citizens can address the challenge of a growing world population. It is important that we all work together to find solutions that will ensure a bright future for everyone.

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**CLADbook** 2018

# innovation & design

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rule\_breakers.

# rule

These projects are fusing typologies, pushing boundaries in engineering and design and upturning our expectations. They're built to surprise

# breakers

## Under

Location: **Lindesnes, Norway**

Architect: **Snøhetta**

Twenty-six metres long, 2,000 tonnes and 6 metres below sea, it's the world's largest underwater restaurant: Under.

Snøhetta's design for clients Gaute and Stig Ubostad is inspired by the rocky coast. Reinforced concrete walls will be 0.5 metres thick and an 11-metre panoramic acrylic window will offer a view of the seabed.

Although underwater building is not uncommon to Norwegian engineering, Arne Marthinsen, project manager from SubMar, which is handling wave calculations and marine operations for the project, says the construction and the materials need special attention.

"The construction must be able to withstand enormous natural forces from the sea, the waves, the weather and the wind," he says. "Should a thousand-year wave occur, you will be completely safe within the restaurant."



Withstanding  
enormous  
natural forces





## a blueprint for mega-events

### **Ras Abu Aboud Stadium**

Location: **Corniche Beach, Qatar**

Architect: **FI-A / Schlaich**

**Bergermann / Hilson Moran**

A 40,000-capacity stadium for Qatar's 2022 FIFA World Cup is to be constructed from shipping containers and demounted and rebuilt elsewhere after the tournament.

Organisers say Ras Abu Aboud Stadium "will change the way host nations deliver mega-event facilities and become a blueprint for future mega-event planners to follow."

Fenwick Iribarren (FI-A), Schlaich Bergermann and Hilson Moran devised a modular structure that can be taken apart, with the shipping containers used to transport the materials becoming part of the stadium. The structure can be rebuilt elsewhere or separated into sections to create smaller facilities. Everything from the roof to the seating can be reused and the venue could even appear at a future World Cup.





## Mars Science City

Location: **Dubai, UAE**

Architect: **BIG**

Mars Science City – a series of lab-like sites designed to simulate Mars' harsh environment – will include a museum displaying "humanity's greatest space achievements", with educational areas to engage young people and inspire in them a passion for space, exploration and discovery.

The series of domes, designed by Bjarke Ingels Group (BIG), will include food, energy and water labs, as well as agricultural testing and research into food security. It's being billed as "the most sophisticated building in the world".

The vast space simulation development is part of Dubai government's strategy which seeks to build the first settlement on Mars in the next 100 years.

"There will be a presence of Mars on Earth to begin with, and then eventually there will be a presence of Earth on Mars," says BIG founder Bjarke Ingels. "It's incredibly exciting."

Plans include an experiential element which will involve a team living in the simulated red planet city for a year. The experience will enable the development of a model for sustaining life in hostile planetary environments.

the most  
sophisticated  
building in  
the world



## Treetop Experience

Location: **Copenhagen, Denmark**

Architect: **EFFEKT**

Danish firm EFFEKT designed a spiralling 45-metre-tall observation tower – “a new and unique destination” for the Camp Adventure park in Gisseløvdal forest, an hour south of Copenhagen.

Called the Treetop Experience, it will consist of a 600-metre two-tier elevated walkway that leads visitors around the woodlands, linking to aerial zip lines and the dramatically rising tower – conceived “as a seamless continuous ramp that makes the forest accessible to all regardless of their physical condition”.

“We are shunning the typical cylindrical shape in favour of a curved profile with a slender waist and enlarged base and crown,” EFFEKT says in a statement.

a new  
& unique  
destination





# the future of live entertainment



## MSG Sphere

Location: **London**

Architect: **Populous**

The Madison Square Garden Company (MSG) plans to bring a vast, spherical music and entertainment venue to London that will "change the nature of live events".

The company has completed the purchase of 2 hectares of land in Stratford, London, next to Westfield Stratford City shopping centre.

International architects Populous are behind the striking design of the MSG Sphere – described by MSG as "the future of live entertainment" – a version of which has already been announced for a site in Las Vegas, Nevada.

According to the company, each of its Spheres will be equipped "with game-changing technologies that push the limits of connectivity, acoustics, video and content distribution to create powerful, immersive, multi-sensory environments that will transport audiences."

It will boast a programmable exterior, an interior bowl with the world's largest and highest resolution media display, a dynamically adaptive acoustics system and state-of-the art connectivity.







## a network of fitness oases



### Get Pumped

Location: **US, nationwide**

Architect: **Gensler**

Could gas stations be transformed into the health clubs of the future? Gensler thinks so. The global architecture firm teamed up with sports giant Reebok on a concept to transform gas stations across the US into fitness hubs.

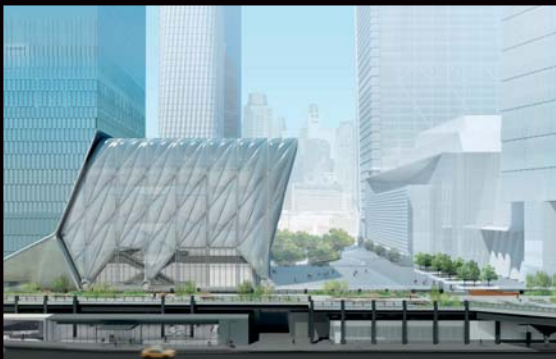
The proposal, called Get Pumped, is a long-term vision for adaptive reuse inspired by the rising demand for electric automobiles, which will lessen the demand for gas stations.

Gensler saw these redundant facilities becoming spaces "where people can prioritise their mental and physical wellness".

Alfred Byun, senior associate at Gensler, says: "We envision our cities of the future to have a network of fitness oases between home and work where you could stop and recharge more than just your car."

Reebok fitness head Austin Malleolo says: "Consumers may not need gas stations anymore, but instead of wasting them, we're recycling them, and maximising the space so that they become places of community."





## The Shed

Location: **New York, New York**

Architect: **DS+R / Rockwell Group**

Diller Scofidio + Renfro (DS+R) and Rockwell Group have designed The Shed – a vast New York arts venue on wheels.

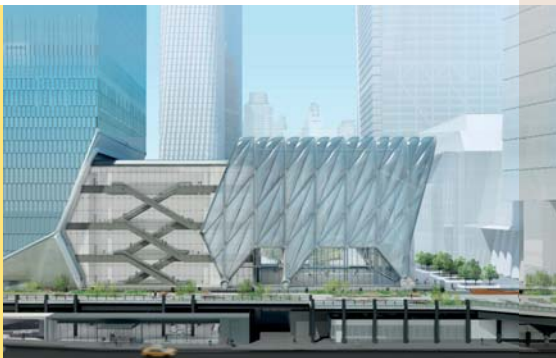
The expandable cultural venue in the Hudson Yards is set to open in early 2019.

The structure comprises two principal components: a six-level fixed building, and a telescoping outer shell, which sits on a set of rails allowing it to be expanded and contracted.

The “radically flexible” building can accommodate a variety of performance types in various configurations and can host multiple events simultaneously.

The outer shell can be expanded and deployed over an adjoining plaza to provide a 37-metre-high hall with controllable light, sound and temperature. When the shell is contracted, the plaza becomes a large open public space.

Daniel L Doctoroff, president and chair of the board of directors of the facility, added: “The Shed is uniquely of and for the 21st century, a new cultural institution that can respond to artistic and technological advancements of our time.”



respond to  
artistic and  
technological  
advancements

# built to last and thrive in any condition

## Resilience Training and Wilderness Camp

Location: **Fort Collins, Colorado**

Architect: **MAAD**

Wellness design firm AW Lake has opened a resilience training and wilderness camp alongside her new headquarters on a mountaintop inside Colorado national forest. About 2,000 metres above sea level, the 16-hectare site is where founder Adria Lake offers resilience training to help increase participants' health and wellbeing.

MAAD principal architect Marc Gerritsen says the buildings, cabins and campsites had to be resilient themselves, able to withstand extreme conditions including 240kph wind speeds, snow loads, potential wild fires and sun exposure.

The camp features fully equipped camp sites, a makers' studio, demo kitchen and cooking school, outdoor wood-fire sauna and steam cabins and ice baths. The main building boasts two 8-metre panoramic windows, a sloped roof to protect from wind and snow loads, and raw steel cladding to protect the structure from wildfire.

Gerritsen says: "It's built to last and thrive in any condition, not by force or concessions, but through an ongoing conversation with nature."



# SLUMBER

Social media savvy, discerning, environmentally aware and hungry for experience, millennials are travelling more than any other demographic.

What impact are their desires having on the hospitality industry?

# PARTY







PHOTO: MICHAEL KLEINBERG



Marriott's Moxy Times Square (top) opened in late 2017; Shangri-La brand Hotel Jen looks over Beijing's skyline

PHOTO: WHAT THE FOX STUDIO



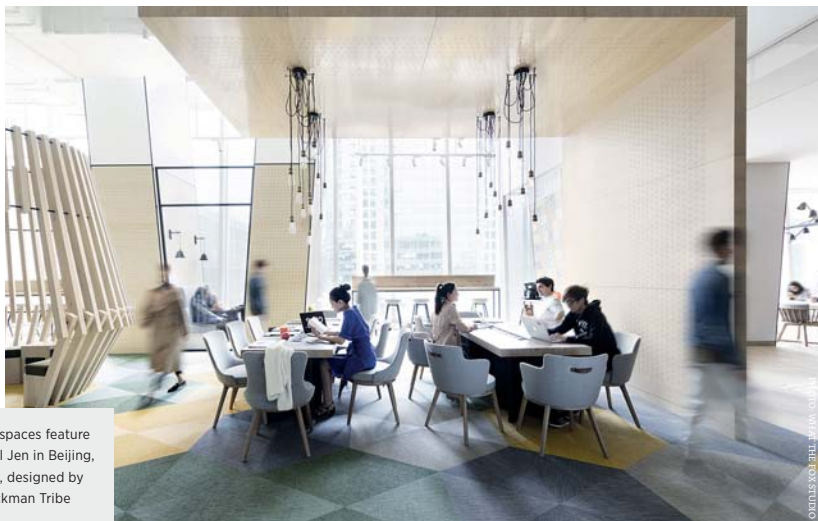
Kajsa Krause, right, and Tracey Sawyer, co-directors of Krause Sawyer



**A**ged 18 to 35, millennials, also known as Generation Y, are set to become an increasingly dominant influence on the hospitality industry and we're seeing the major hotel chains rolling out millennial-targeted concepts: Canopy by Hilton, Shangri-La's Hotel Jen, Accor's JO&JOE and Marriott's Moxie, to name but a few. Many of the features which appeal to millennials are also appealing to other demographics too, so we're likely to see more of them.

According to Kajsa Krause and Tracey Sawyer, co-directors of Krause Sawyer, millennials are looking for a hyper-local experience, which fosters a connection to other guests: "Millennials don't want the familiar, but something new and fresh. Every traveller is different, with unique tastes and expectations, and the industry is moving toward providing for individuals and increased flexibility.

"Crucial to that is the public spaces and having the independence to choose any amenity they want at any point during their stay."



Social spaces feature at Hotel Jen in Beijing, China, designed by Stickman Tribe



PHOTO: MICHAEL LEINBERG

## SELFIE MOMENT

Traditionally, the hotel lobby was a rather staid area with a formal reception. At millennial hotels, it must be not only a social space but also an Instagram moment. Designed by Stickman Tribe, Hotel Jen's lobby, in Beijing, China, makes a statement with a dramatic tree sculpture, with suspended porcelain leaves – perfect for a selfie to be taken and pinged around the world via social media.

"We have seen lately that millennials want a hotel that has Instagrammable moments. Having a great overall design is not enough, there have to be recognisable, memorable moments throughout the hotel design," says Jackie Koo, founder of Koo Architecture, which designed Chicago's EMC2, in Illinois.

Reception desks look set to become a relic: millennials don't want to hang around waiting to be checked in. They want to do this at the bar while they have a beer and chat to staff about the best run route to the city's hotspots. This means the lobby can become another space to hang out, to drink cocktails or smoothies.

Marriott International's vice president of global design strategies Aliya Khan says that this demographic likes humour and whimsy, so they had fun with the design for its millennial-targeted Moxy brand: "We have a see-saw in the lobby of our Seattle hotel. Why use a bench when you can drink your cocktail on a see-saw? I have 29 other brands where you can sit on a bench!"



Jackie Koo (left) of Koo Architecture; Aliya Khan, global design strategy, Marriott International



George Yabu, left, and Glenn Pushelberg, co-founders of Yabu Pushelberg



## What millennials want

- Experience
- Social spaces
- A sense of place
- High touch hospitality
- Free WiFi
- Docking stations
- Selfie areas
- Filtered water
- Food to go
- Value for money
- Whimsical design
- Juice bars
- Cocktail bars
- Places to work out
- Room shares

## What they don't want

- Cable TV
- Cloche-style room service
- Business centres
- Big bedrooms
- Check-in desks
- Formality
- Water in plastic bottles

Moxy Times Square, where the focus is on attention to detail and the essential elements

## Millennials are investing more in experiences versus physical things

A choice of areas to hang out is essential, but millennials don't want stuffy restaurants or bars lacking in atmosphere and full of only hotel guests. The bars and restaurants should be integrated with the neighbourhood and seen as a desirable place for locals too.

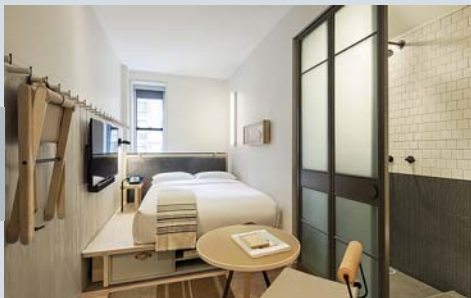
## EXPERIENCE AND COMMUNITY

"Hotelier Ian Schrager was the first to take the opportunity to make the bar a public area and the lobby more than just a place to gather to wait for friends," says Khan. "Millennials want bigger and more varied communal spaces and they want big experiences and to be part of a community. As hoteliers, this is also an opportunity for us to bring in local audiences to the bar and provide a place for people to pop into after work."

Bedrooms must be non-uniform and quirky, but they don't need to be massive. For Moxy, Khan says Marriott looked carefully at all the elements which were essential in a room and cut out the rest. For example, the closet has been replaced with an adaptable rail.

"It has pushed us to another level of inventiveness," she says. "We have asked what is really important. A good bed and a good shower, the lighting, somewhere to open the luggage. We don't need the drapery or picture window. The location and being in a hub is more important than a sunrise or sunset. Millennials are happy with smaller bedrooms, but want bigger and more varied communal spaces: a larger bar, a library, a patio area."

Glenn Pushelberg, co-director of Yabu Pushelberg, who worked on the Moxy design, says all travellers want a room that feels comfortable and effortless, and where attention has been paid to the details, regardless of the room rate: "They are looking for





Happy House is a social area where JO&JOE's 'tripsters' can relax, work, cook or do laundry

## Designing a millennial concept

When Accor decided to go after the millennial market with a game-changing concept, it chose not to go with an established hospitality designer, but a company that would shake things up. London design agency Penson, which has worked with YouTube, Google and JayZ, was perfect. "My first pointer to them was to think about, it's not a bed, it's about turning ideas on their head," says CEO **Lee Penson**.

Penson says the starting point for the JO&JOE concept was to break down the rigid barriers that hamper the hospitality experience. "I have stayed in the world's best and worst hotels for work and fun. What strikes me is that I always find they aren't flexible or adaptable enough for modern life," he says. "Check in and check out should be easier and more flexible. Millennials want more freedom, the ability to choose and adapt an existing product around themselves and their lifestyle. Heading to JO&JOE is like riding a wave of freedom and open possibilities."



Millennials want more freedom, the ability to choose and adapt an existing product around themselves and their lifestyle

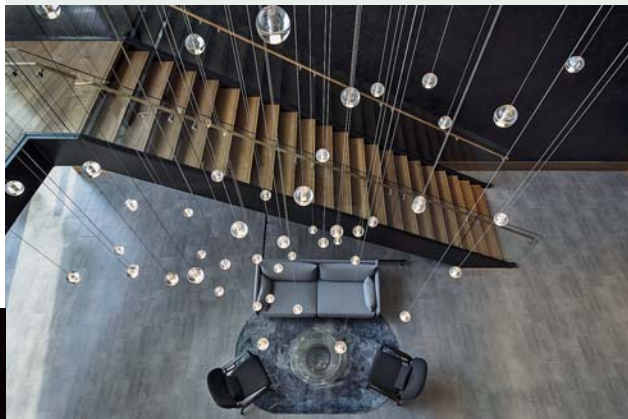
JO&JOE is an Open House concept, providing a funky backdrop for a global community to use as they wish. The community is held together by an app, so people can easily create an event, like a jam around the fire. "It's social media for travellers, which is now a huge element of the travel industry," says Penson. To make the most of the space, all furniture is on wheels so it can be easily moved around.

"This flexibility aids real estate issues, as architecturally interesting builds like warehouses and disused boats can be filled to the brim with movable 'kit of parts' furniture," says Penson. The design features eco-friendly elements, bright colours and a lot of artwork.

"In our recent launch for JO&JOE Hossegor, France, we installed brightly patterned crazy tiles on an area we knew was going to be a social point with surfers. Other sites reflect points of interest, such as local museums, rivers and famous bars and cafés," he says. "For JO&JOE, think inflatables, round pizza beds, spiral staircases, bright colours and the craziest interior elements all reflecting the locality in their own way."



Lighting choices create the required atmosphere at Canopy by Hilton in Washington, DC



hotel experiences which are less standardised, and reflect a sense of place and the local culture. People, millennials included, are investing more in experiences versus physical things. They are also looking for experiences which speak to them as individuals."

Indeed, authenticity has been described as the new luxury. Many millennials want to feel they're part of the place they're visiting, so the hotel design must also draw inspiration from – and reflect – its location. This means there can't realistically be a cookie-cutter approach across the chain. However, rough luxe is one common and repeating trend, with designers using exposed brick, concrete, metals, beat-up décor and repurposed or sustainable furniture to create an edgy or urban look at a cost-effective price.

## Large scale architectural elements of wood and metal anchor the space

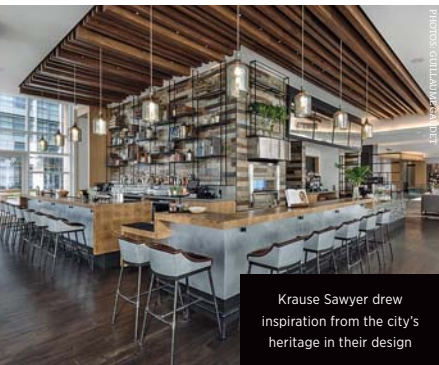
Materials should ideally link to the area's heritage. For example, Krause Sawyer called on the city's history and maritime culture when designing the Canopy by Hilton in Washington, DC. Large-scale architectural elements of wood and metal anchor the space, inspired by the traditional fish market, dock constructions and warehouse features. Rough woods and metals are juxtaposed with smooth finishes and glass. The bedrooms have a signature canopy over the pillows, reminiscent of market containers and fish crates. Lighting is crucial, with a mixture of atmospheric lighting for cosy spaces and natural light via floor-to-ceiling windows in other areas.

## ROOM SHARES

Many millennials do not have particularly deep pockets and are discerning in how they spend their cash. They do well at making their income go a long way, by doing their research really well, often choosing their hotels through social media and TripAdvisor. In order to keep the cost down, they are happy to share rooms with mates, which is likely to impact hotel design going forward.

"Sleep shares are a new type of room addressing millennial needs," says Koo. "Millennials aren't marrying as much and often travel with friends. A room that can accommodate four singles in a luxurious environment could change the common mix of kings and doubles."

JO&JOE, from Accor, is a concept that has been created with this in mind (see previous page). Meanwhile, LAVA designed a Youth Hostel Association (YHA) hostel in Bayreuth, Germany – an updated take on the youth hostel experience. LAVA director Tobias Wallisser



Krause Sawyer drew inspiration from the city's heritage in their design



The rooms at the youth hostel in Bayreuth, Germany, are custom built for sharing



REUTERS/STEFAN JOHANN

says: "Our research showed Gen Y travellers want funky design, access to community and unique experiences; not just a clean bed and shower."

In response, an intelligent wall system has been designed, with modular, contemporary, custom built-in furniture – toilets, showers as well as bed niches. These three dimensional wall modules facilitate different room configurations through partially rotating beds, creating options for two, four or six bed rooms.

The design is solid and functional: wood, concrete floors, brightly coloured infills and strong graphics. Also, the façades are highly insulated and renewable energy is used as millennials want to see more than just a nod towards being green.

## FLEXIBILITY

George Yabu, co-director of Yabu Pushelberg, says people want freedom and flexibility and to feel less constrained by the hotel experience: "People are looking for less formal spaces to sleep,



Tobias Wallisser

engage and work in interchangeably. Ultimately, travellers are looking for flexibility in having their needs and wants met."

This means many traditional offerings need to be reconfigured. Guests want charging ports and free WiFi, vegan food options and sustainable products.

"The hotel business centre is another superfluous feature for millennials. Phone-based technology means the business centre is now often just a printer in a communal area," says Koo. "There is also less interest in the traditional three-meal restaurant. Trendy and healthy food options available day or night are appreciated. Social dining and happy hours are enticing."

The US's 80 million millennials are set to overtake the baby boomer generation as the most populous generation at some point in 2019, according to Pew Research. Meanwhile in China, there are an estimated 400 million millennials. With millennials spending more on travel than any other generation, hotel operators must respond to the needs of this experience-thirsty demographic. □

# CREATING AUDIENCES

How do venue designers and sports architects make sure they attract the widest possible demographic to their facilities? Tom Walker speaks to four designers for CLADbook

**I** think there's been a huge move in the past 20 years to increase the quality of experience at sports venues," says Chris Lee, the EMEA managing director at sports architects Populous. Lee says sports venue architecture is no longer merely creating a stage for people – sometimes from a narrow demographic – to come and watch sport.

"We've definitely moved on from the 80s and the 90s when much of live sport – and association football particularly – was very male-dominated," Lee adds. "The whole stadium experience, from an audience point of view, was a rather niche one."

"Stadium design is no longer about cramming in as many young men as you can and selling them as much food and beer as possible. While the traditional fan culture is an important part of the experience – and we want to keep it – there are now many other considerations around facility design."

Sports venues, especially those developed for professional sports and major events,

are certainly evolving. In some cases, entire districts – offering retail, hospitality and entertainment – are being built around stadia and arenas as part of a trend to create mixed-use destinations where people will spend time before and after the events.

Encouraging longer dwell time means there's a need to create new audiences for the facilities. Families, corporate visitors, even people who might be uninterested in sport but are up for experiencing a live event, are on the radar of those designing the sports buildings of tomorrow.

"The talks we're now having with stadium owners are all about how to maintain an authentic fan experience while widening the demographics of the audience, Lee says. "How can we make venues more attractive to families, females and other groups who may not be seen as traditional sports fans?"

## Diversified experiences

According to Ryan Gedney, vice president and senior project designer at HOK's



HOK vice president  
Ryan Gedney says the stadium  
experience has evolved



Modern sports venues like Little Caesars Arena want to attract more women and families



Retail, hospitality and entertainment offers are being built around stadia and arenas

**The desire for an entire new way of viewing sports yields a different kind of architecture**



PHOTO: JAMES HAMILTON

Golden 1 Center is home to the NBA's Sacramento Kings

### Golden 1 Center is not merely an arena, it's a district that happens to have an arena within it

Sports + Recreation + Entertainment practice, the need to cater for new diverse audiences is changing the way venues are designed. "The live stadium experience is evolving and is no longer about sitting, shoulder to shoulder, for two hours."

Gedney adds: "The desire for an entire new way of viewing sports yields a different kind of architecture. There's a growing demand for people to be able to share an event with others, interact and converse with family, friends and fellow fans, while still being engaged with the game."

David Manica, founder and president of sports specialist Manica Architecture, adds that an increasing number of facility owners are looking for architects to create leisure destinations rather than homes for sport.

"The stadium is much more than a building with a bunch of seats for the fans," Manica says. "The mixed-use experience is becoming the core driver of the design and sport facilities are definitely being designed to evolve the spectator's experience."

Jon Niemuth, director of sports at AECOM, agrees and says that the new generation of stadia and arenas – with their diversified offers – has to now compete for visitors with other leisure options.

"The challenge we have is that people are faced with a lot of choices for their leisure time," Niemuth says. "There's such a diverse offer of sports and entertainment now that the competition for people's time is fierce."

"As sports designers, we need to find ways to make people choose our venues from a myriad of other options, and that includes offering them choices they wouldn't find elsewhere – that is where sport can help."

#### California living

Niemuth picks out a recent AECOM project, the Golden 1 Center in Sacramento, California, as an example of a venue that looks to attract new audiences by providing a mix of sport and entertainment options.

The \$507m arena, home to the Sacramento Kings NBA franchise, anchors



PHOTO: PAUL CROSBY



AECOM director of sports  
Jon Niemuth says stadia are  
competing for our leisure time



The publicly-owned arena is part of a Sacramento business and entertainment district



the new Downtown Commons (or DoCo) district. DoCo is a large urban regeneration project which has added 14 hectares of real estate to the heart of Sacramento.

As well as the 17,600-capacity Golden 1 Center, the new district houses 6 hectares of restaurants, bars and retail; a 250-room Kimpton hotel; 45 residential units and around 23,000sqm of office space.

"Golden 1 Center is not merely an arena, it's a district that happens to have an arena within it," Niemuth says, and adds that the project – and its mix of services – takes inspiration from the old continent.

"The design of Golden 1 and its surroundings has been influenced by classical European town planning," he says.

"Traditionally, you'd have a church at the centre of the community, surrounded by a town square which acts as an activator."

"What we did with Golden 1 was create a similar experience. The arena is surrounded by a brand new town square, a place people can go in the day. It's a place to grab a coffee, read a book, go for a run, dine outdoors and then, hopefully, people realise there's a basketball game on and check it out."

### Motown designs

Another project which uses the district model for audience creation is the Little Caesars Arena in Detroit, Michigan – home of the Detroit Red Wings NHL and Detroit Pistons NBA teams. Designed by HOK, the

20,000-capacity venue is located in the heart of Detroit and covers 83,000sqm, stretching 140 metres from north to south.

The arena anchors a wider \$1.2bn leisure district of shops, restaurants, bars and cafés. To help integrate the the building with its surroundings, the playing court/rink and part of the lower seating bowl are sunk below ground level, with the main concourse at street level. Walking around the concourse, it's hard to detect where the arena starts and the district begins.

"The project was thought of as a district first, before the arena was even discussed," says HOK's Gedney. "The unique opportunity with Little Caesars was that we were able to design mixed-use



# We design venues with the recognition that fans are no longer simply spectators but are also now promoters

retail spaces in tandem with the arena. It allowed us to think creatively about how we blur the lines between these traditionally separate building types.”

Having the arena blend into the surrounding district means fans can explore the retail and hospitality areas during breaks in play. The design also frees up space in the arena for customer and fan-related services, such as dining and retail, as back office areas are sited elsewhere.

“We were able to pull things out of the arena, such as offices and administrative spaces, creating even more space for street-level tenants. As a result, large portions of the arena’s concourses can be used for all manner of activities during games – and also when there aren’t any arena events on.

“During a recent follow-up visit to the arena recently, I walked into the middle of a mass yoga session, which was in progress on one of the concourses,” says Gedney.

### Broadcasting the experience

Facility designers looking to create audiences for their venues also need to consider the latest in technology and broadcasting innovation. In a connected world, people attending games expect to have the same level of access to game-related information, statistics and detail as those at home watching the event on the TV. This means providing sufficient broadband technology to keep visitors connected.

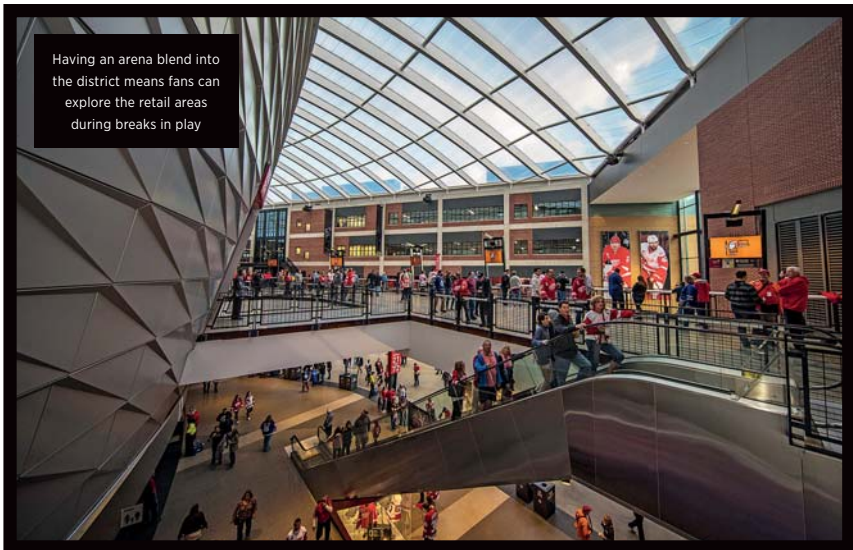
Having a fully connected venue also means that each fan can – by tweeting,

posting images and describing their experience to peers – become a marketer for the event and facility. “We design venues with the recognition that fans are no longer spectators but also promoters,” says Gedney.

“The power of smartphones and social media – and the opportunities they offer – needs to be acknowledged and requires a designer/architectural response. At the very least, we must provide the infrastructure to keep all the fans connected to the internet.”

As well as catering for those attending the event, venue designers also need to consider those who do decide to view the action from the comfort of their homes. In the age of ultra high-definition broadcasting and global rights agreements, delivering engaging content to millions

Having an arena blend into the district means fans can explore the retail areas during breaks in play





Skycams give fans a new perspective on their favourite games

around the world is becoming part of the brief when designing modern stadia.

"Working on the Olympic Stadium in Sydney for the 2000 Olympic Games, we had worked hard to find a great view for every seat," says Populous' Lee. "Then the broadcasters came in and said they'd need another camera platform for 10 cameras, which knocked out 300 of our seats.

"I'll never forget their reasoning though. They said every camera would ensure another million viewers. Those 10 cameras would get an extra 10 million TV viewers – and there we were, arguing over 300 seats."

Manica adds that there are now entirely new ways to broadcast sporting action, which will become a consideration for architects. "Earlier this season, the NFL broadcast its first game filmed entirely using Skycam, a moving camera attached to wires that hangs over the field," he says.

"The entire event was broadcast as if the viewer were on – or hovering – above the field, not fixed on one sideline. Some NFL buildings now have two Skycams – to cover the action from multiple angles.



Manica Architecture founder David Manica says Skycams will replace broadcast cameras

"I do believe that the Skycam will eventually replace the traditional broadcast camera. It's a far more dynamic and immersive angle and it brings fans into the game in a way the traditional camera angle does not. And, with the Skycam-only approach, the real-estate in the bowl used for traditional camera locations, which are located in premium seating areas, could be sold back for ticketed revenue."

Gedney agrees and says that the future could get even more interesting. "We're not far from 3D, real-time video capture now. There are already technologies which can use 3D video and replicate it in VR. In sport, that could be used to give fans – both in the venue and outside it – unique vantage points which are near-real.

"It's not a huge part of traditional broadcasting yet, but I think there's an interesting future there. It will mean that we have both physical and infrastructural needs within a venue – for camera angles and so on – but it could have an even broader effect on how we design the basic venue in terms of its capacity."



Populous predicts high-tech eSports arenas are just a few years away from being realised

## I'm excited to see where the next 10 years will go in design, particularly with augmented reality

### Future gazing

So what will audience creation look like in the future and how will it impact the design of sports venues? Gedney says we have only just begun to see the impact of technology on the way sports facilities are drawn up.

"I think there are a lot of new ways in which technology can be leveraged at venues," Gedney says. "I'm excited to see where the next 10 years will go in design, particularly with augmented reality (AR).

"I love to think about the day when AR is delivered through hardware that is no different to eye glasses. It will mean that we can begin overlaying digital content on a real world, using hardware which is unobtrusive. It seems far away at the moment, but I don't think it is – and as architects we need to be ready for it."

Gedney adds that the opportunities offered by AR range from creating a personalised stadium experience – using

targeted messages – to distributing venue information in real-time, such as queue times for food stalls or bathrooms.

Niemuth too, says there are "tons of opportunities" to do things as technology develops and designers begin to apply it.

"Facial recognition is particularly exciting," he says, when asked to pick an emerging technology which could impact on how future venues cater for their audiences. "The implications of the technology on security, access control and the overall venue experience could be huge.

"Imagine a venue that's completely connected and allows ticketing on a phone. Each guest could then be identified by the signal of their phone. The venue operator will know when the person is coming to the venue, then check their face to make sure they are who they say they are. They could also identify whether this is a customer they want to take extra care of, for example."

Lee says technology could also help advance a modular approach to stadium design, where spaces can be easily changed to accommodate a number of events.

"Artificial intelligence will have a huge impact," Lee says. "We'll be able to learn how crowds of people move differently on a Tuesday night game or a Sunday afternoon and have the stadium environment adapt automatically. That's the next big step in venue design, using AI to create an environment that is almost self-modulating."

For Manica, the technological revolution will also improve the longevity of venues. "I'm interested in seeing how sustainable design products will change the way we construct projects," he says. "Already, engineers and scientist are working on organic additions and self-healing building materials. How amazing would it be to have a building that 'heals itself' over time so that it can double or triple its life expectancy?"

# The new Tottenham Hotspur stadium

## A SEAT FOR ALL TASTES

One of the venues to be hailed as an example of the future of stadium design is English Premier League club Tottenham Hotspur's new home, currently under construction in North London. Designed by Populous and with a capacity of 61,000, it will be the biggest club stadium in the capital when it opens in August 2018.

What makes the £1bn venue interesting from an audience creation standpoint is its innovative mix of seating options. As well as large family areas and club seat zones, fans can opt for a number of premium products – including seats behind the managers' technical area (costing about £339 per game) and the H Club, marketed as a "discerning private members club" with access to premium lounge seating and Michelin-standard food.

At the other end of the scale, there will be a 17,000-seat, single tier stand – the largest in the UK – designed to help create a unique atmosphere. It has also been future-proofed, by designing in the ability to accommodate safe-standing, should the law change to allow standing at top-flight games at a later date.



Tottenham Hotspur's new ground is being built in North London



Christopher Lee, EMEA managing director at architects Populous




### Christopher Lee:

Venue design is now focused on creating plenty of variety in seating products – from family enclosures and club seats to 'singing areas' and corporate zones. We're definitely moving away from what is derisively called 'the corporate sandwich', where you have corporate boxes sandwiched between the general admission fans.

Everyone now pays a lot of money for their tickets, so everyone should be considered as a customer – and everyone's experience should be curated. It's no longer about the haves and the have-nots. Everyone should have access.

Tottenham's chair Daniel Levy was adamant about this. He said he wants every ticket, from the least expensive to the most expensive, to offer a series of quality experiences at the new stadium, within an authentic environment. □



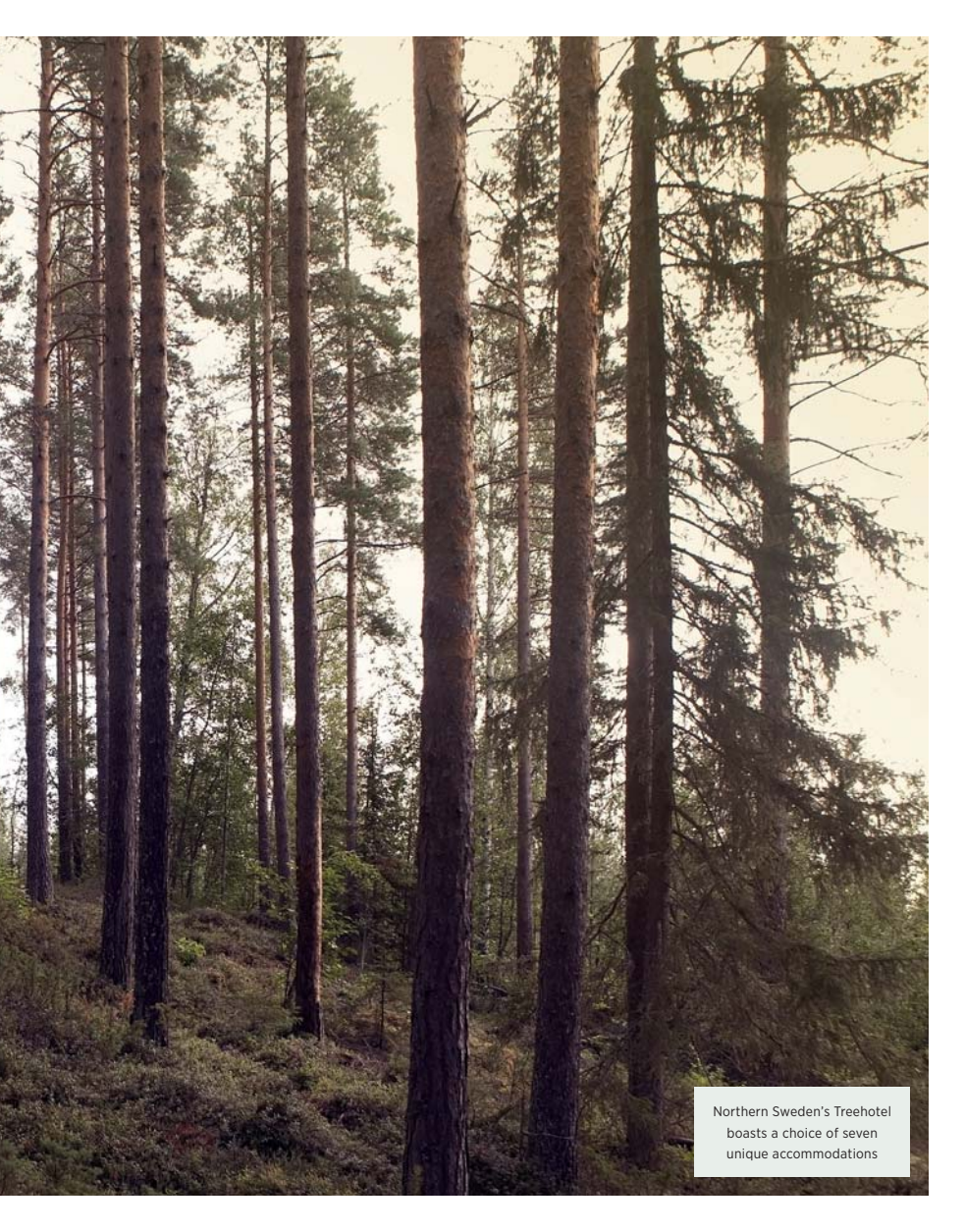


Hospitality

# rooted interest

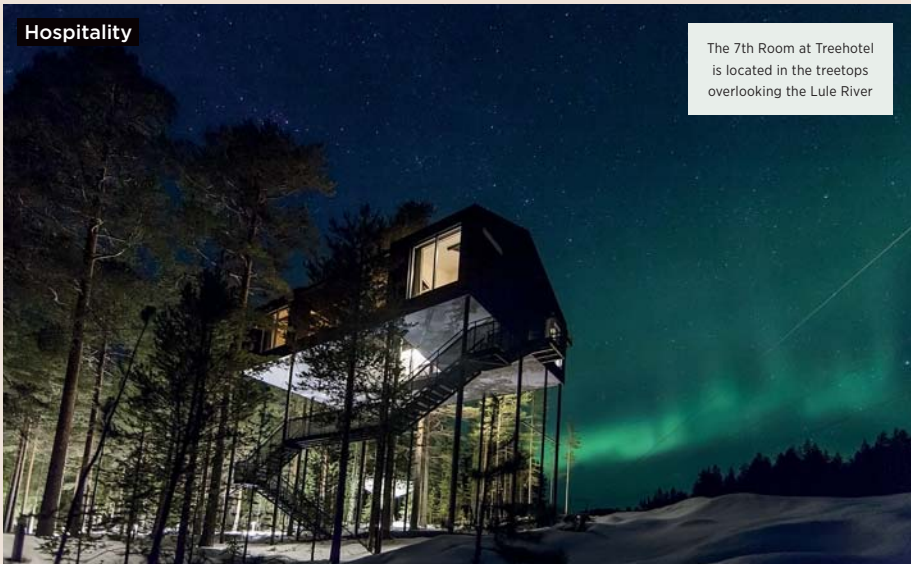
From hotels in trees to hotels covered in trees,  
we hope this green trend continues to grow





Northern Sweden's Treehotel  
boasts a choice of seven  
unique accommodations

The 7th Room at Treehotel is located in the treetops overlooking the Lule River



The design of the cabin aims to bring the guests and nature closer together

### Treehotel

Edeforsvägen, Sweden

Architect: Snøhetta

Client: Britta and Kent Lindvall

Launch: 2017

The 7th Room joins six other guest suites, all contained within treehouses, that make up the Treehotel in Edeforsvägen, Sweden.

The 7th Room was designed by Norwegian architecture studio Snøhetta, providing a unique perspective of the Northern Lights from a forest canopy. Hovering 10 metres above the ground amongst the trees, the 7th Room is a traditional Nordic wooden cabin with a large netted terrace suspended above the forest floor.

The unusual hotel room is supported by 12 columns, and a large pine tree extends through its central void. Up to five visitors can live in the space, which has a social lounge area, a bathroom, two bedrooms with beds embedded in the floor and an outdoor terrace – where guests can sleep under the stars in a sleeping bag.

"The design aims to bring people and nature closer together, extending the cabin's social spaces to the outside and further blending the distinction between indoor and outdoor," said the architects. "With complementing light and wooden furniture, the interior makes up a blonde Nordic contrast to the dark exterior."

Previous Treehotel suite architects have been Mårten Cyrén, Inrednings Gruppen, Rintala Eggertsson Architects, Tham & Videgård Arkitekter and Sandell Sandberg.



PHOTOS: BRIAN JANSSEN

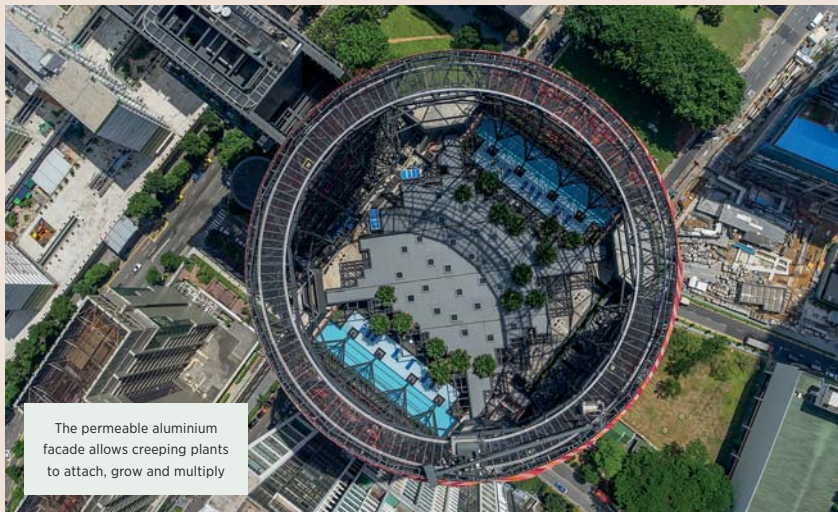
A 'blonde' interior serves as a contrast to the dark exterior of the structure



## Hospitality



More than 50 plant species  
help create a green and  
growing hotel building



The permeable aluminium facade allows creeping plants to attach, grow and multiply



WOHA hopes the concept inspires future buildings

## Oasia Hotel Downtown

**Singapore**

Architect: WOHA

Developer: Far East SOHO Pte Ltd

Launch: 2016

Singapore-based WOHA is famous for its garden hotel, Parkroyal at Pickering, and has followed its success in the city's nearby central business district. Oasia Hotel Downtown is covered in a permeable aluminium façade, allowing creeper plants to take hold of the red structure and grow and thrive, over time transforming the building into a towering green ecosystem.

WOHA sees the design for the 314-room Oasia as a prototype for hospitality and commercial tower blocks, and says the concept "moves beyond vague notions of sustainability by fundamentally embracing living systems into a mixed-use programme – one that grows, rather than exhausts a city's resources."

The façade is made up of 21 species of creepers to make sure it's lush and resilient during different weather conditions. A further 33 species of plants and trees are used throughout the hotel, becoming a haven for birds and animals in the city.



## Hospitality



## 1 Hotel and Slo Living Paris, France

Architect: Kengo Kuma / Marchi Architects

Developer: Compagnie de Phalsbourg

Launch: 2022

An eco-luxury hotel and adjacent next-generation youth hostel are under development in Paris, in the Rive Gauche district, which aims to become a bastion of sustainable architecture in the city.

Kengo Kuma has designed 1 Hotel, embedded within planted terraces and suspended gardens at various levels to "to create a green lung for the city". The complex will include a sports centre, bar and restaurant, business zone and co-working space, as well as a public garden that will complement the nearby garden of the National Library.

The related hostel, Slo Living, was designed by Marchi Architects.



The building will be fronted by a planted promenade and act as a 'green lung' for the neighbourhood



PHOTO: JURYVIERA.COM

The hotel includes 48 rooms, a restaurant, café, rooftop bar, spa, gym and swimming pool

## Atlas Hotel

Hoi An, Vietnam

Architect: Vo Trong Nghia

Developer: DANH Co Ltd

Launch: 2016

Hoi An's old town has experienced rapid growth and an increase in tourists since it was named a UNESCO World Heritage Site. The area is famous for its traditional architecture, featuring tiled roofs and small courtyards. The nearby Atlas Hotel is a new development that seeks to capture the charm and tranquility of old Hoi An and the dynamic emerging Hoi An.

The five-storey, 48-room Atlas Hotel has many internal courtyards and deep planters which make up the hotel facade, allowing greenery to provide the rooms with solar shading, while the perforated stone walls allow light and airflow through but keep the space cool.

The hotel offers a restaurant, café, rooftop bar, spa, gym and swimming pool.

Vo Trong Nghia says: "The use of these green and natural elements embodies the particular interest of the office and the House for Trees concept: to integrate greenery into design as a way to rejuvenate urban areas and to contribute to societal improvement."



The property comprises two bedrooms, a bathroom, lounge spaces and roof terraces



## Qiyunshan Tree Hotel

Qiyunshan, China

Architect: Bengo Studio

Client: ZYJ

Launch: 2016

Stacked timber volumes form the structure of Qiyunshan Tree Hotel, a small accommodation in the heart of the Huangshan mountains in China's Anhui province. Designed by Shanghai-based Bengo Studio, the hotel features two bedrooms, two bathrooms and a living room in its 120sqm space. The top level is a 'landscape room' providing unobstructed views of the lush scenery. Reaching 11 metres high, the hotel is the same height as the surrounding red cedars.

The 'landscape room' is the top storey, where hotel guests can enjoy the forest view

### Mountain Forest Hotel Guizhou, China

Architect: Stefano Boeri Architetti

Developer: Guizhou Wanfenggu

Ecological Tourism Development Co Ltd

Launch: 2020

Italian architect Stefano Boeri has designed a tree-covered resort property in China's Guizhou province. It's part of Wanfeng Valley, a sustainable district that's being developed across 20 hectares in Xingyi City, Qianxinan.

The property is part of the Cachet Hotel Group and will be the centrepiece of Cachet Wanfeng Valley 'lifestyle destination' – its first resort development in Asia. The building will feature a 182-room Cachet Resort Hotel and a 71-room URBN hotel, two restaurants and lounges, a swimming pool and fully equipped fitness centre, as well as a Cachet cSPA – an environmental and design-led concept created by consultancy and management firm WTS.

Boeri says the vertical forest model promotes wellness and creates sustainable urbanisation. "Research has enabled us to develop building technologies to bring trees high up in the sky and irrigate them with recycled water. This advancement, alongside ongoing analysis of the vegetation that can thrive in these environments, allows us to conceive unique buildings specific to their locations. The result is new spheres, where people, trees and animals coexist."







Flowers, plants and trees drape the public and private spaces, terraces and rooftops

IMAGES ATTILIO JEAN NOUVEL



The vertical garden provides a sense of continuity between the hotel and its surroundings

## Rosewood São Paulo

São Paulo, Brazil

Architect: Jean Nouvel

Developer: Allard Group

Launch: 2019

Rosewood Hotels & Resorts' first project in South America, this São Paulo hotel has been designed by Jean Nouvel as a "vertical park". Located at a city building that was formerly a maternity hospital, a 90-metre tower with a latticed steel facade will rise next to the historic building, and will be covered with landscaped terraces.

The plant- and tree-covered hotel will offer 151 guest rooms and 114 private residences, with interiors designed by Philippe Starck.

Two restaurants – one on a veranda overlooking the lush hotel gardens – a bar, a caviar lounge, a rooftop pool and another outdoor pool in the landscaped grounds, a large spa, fitness zone and luxury retail will all be available onsite.

Nouvel is using the neighbouring Matarazzo Park as an inspiration. "It is an oasis. It is a place of urban calm," he says. "When building at the edge of this park, the best response is undoubtedly to belong to the park and to allow the trees to invade the new construction as well."

Eventually it will be covered in trees like those in the park, such as fig and magnolia trees. □

# FINGER ON THE PULSE

Experience designers are often ahead of the curve and set the pace for the other leisure sectors. We asked some global firms for their top trends of the year

## Un-malling the mall

**Matt Dawson and Steve Shah**  
Senior directors, FORREC



In an increasingly tough retail environment, even some of the mightiest of retailers are closing their doors and turning out the lights. While developers and retailers struggle to find solutions, there may be a magic bullet, not in traditional retail, but in something more experiential. Could the solution be a matter of un-malling the mall?

One way to address the challenge is to find tenants that meet visitors' new expectations. Stores that offer experiences along with the products they sell go a long way in providing the engagement opportunities that customers seek. Themed retail, new food concepts and gaming experiences can also generate a lot of

excitement. Because they're usually pre-packaged and branded concepts, these 'plug & play' formats can be up and running quickly.

Rethink the mall by taking a big leap with the overall experience. There has to be a 'reason for being' that resonates with people enough that they'll go there again and again. Bespoke food



There has to be a 'reason for being' that resonates with people so they'll go again

and beverage experiences provide more social media fodder. Amenity spaces can be designed to be irresistible Instagram and Snapchat photo ops. Innovative retail can correlate online with onsite shopping. The sense something is always going on blurs into a singular sense of being drawn 'there'.

Those developers who have the courage and vision to push the envelope can capitalise on the Fear Of Missing Out (FOMO) frenzy by building designs that offer consumers something they really want – an experience.



Experiential retail could help curb the decline in footfall and spending



At the Mercedes-Benz Brand Space, experiential design is used to educate the firm's employees

## Experience: the missing link

**Kieran Stanley and Karen Klessinger**  
CEO and creative director, dan pearlman



**T**ime, especially leisure time, is limited and precious. In the future, people will spend time, not money. Hence, the key to successful destination design and, in particular, experience design is to create emotional value.

Whether theme park, zoo, office, public space or mall, the boundaries are melting and futureproof destinations will come to be measured in 'experience per square metre'.

A prerequisite to experience design is fully understanding the user

and their needs. A carefully curated co-creation process will enable a successful destination development. We are urban storytellers and builders. We bring the narrative back into the increasingly dense city, creating a seamless visitor journey within mixed-use destinations.

In these disruptive times, destinations must provide flexibility for different formats and users and set standards for future-oriented public spaces. If time is the currency of the future, experience will be the ultimate investment.



Lost Valley: an immersive experience at Everland



The tools are idiosyncrasy, playfulness, irreverence and inventiveness; telling stories discovered through play



### Stirring the soul

**Tom Hennes**  
Principal, Thinc Design

We focus on projects that challenge the imagination, invite participation, draw curiosity and reward through myriad small satisfactions and astonishments – outcomes that are as individual as each person who participates.

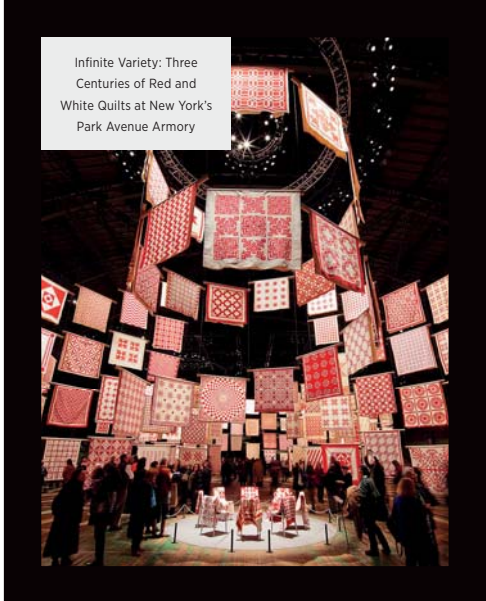
We observe trends like escape rooms and theatrical productions like *Sleep No More* and *Then She Fell* – productions in which the audience becomes participant, voyeur, investigator and problem-solver. We reference installations like the immensely

popular *Meow Wolf*, in Santa Fe, and predecessors like the City Museum, in St Louis, and the lovely Museum of Jurassic Technology, in Los Angeles, or our own *Infinite Variety*, at the Park Avenue Armory in New York, that challenge what a museum can be and remind us why it's exciting to be there.

Our work aspires to create a universe of meaning in an environment that excites wonder in people – on their own diverse terms and leading to their own individual satisfactions. The tools are idiosyncrasy, playfulness, irreverence and inventiveness; telling stories half-revealed and discovered more through play and interaction than streams of didacticism. They reshape exhibition-making

from prose to poetry, craft to art, exposition to living theatre. Though grounded in substance and knowledge, they lead with emotion rather than cognition.

For museums, this view is neither easy nor natural. It requires valuing individual experience over prescribed outcomes – bucking a trend that is nearly a half-century old. Critically, it generates a relationship with users that requires trust; the user must trust in the value of the experience, while the institution must trust the user to make of the experience what they will. The potential reward is a stirring of the soul that no mere display of information could ever hope to achieve.



Wonder, an exhibit at Smithsonian's Renwick Gallery





## High-tech v high-touch

**Peter Slavenburg**  
Director, Northern Light

At Northern Light we notice two, on first sight contradicting, trends. On the one hand we see that immersive, programmable spaces are being created; spaces with a 'living skin' instead of spaces full of furniture and exhibits. We saw this when we created the E-mmersive Experiential Environments exhibition at Science Centre

Singapore. Immersive experiences bring architecture alive. Instead of using exhibits to tell a story, stories are told through projections on walls, floors and ceilings.

High-touch is the desire to make it 'real'. We see a trend towards tactile materials and natural objects. The use of pure materials like steel, wood and fabric – and the use of

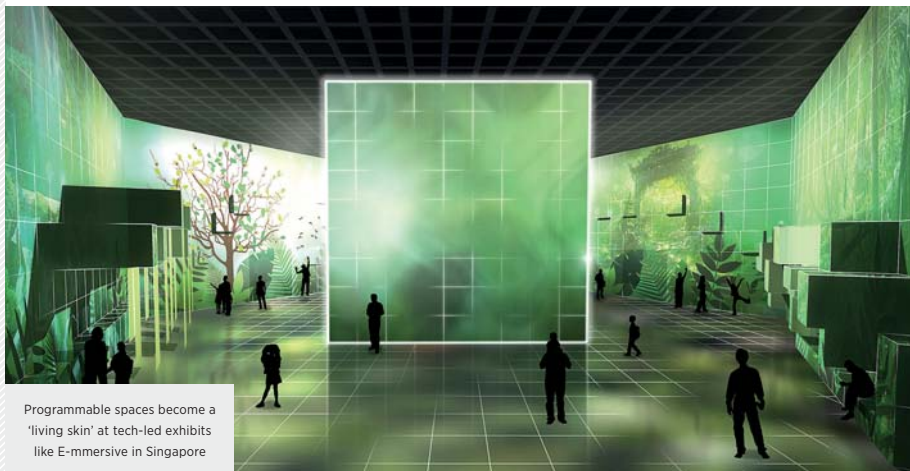


Tactile materials engage visitors at NEMO

nature – serve as a counter-movement to everything digital. A playscape on the rooftop of NEMO science centre in Amsterdam, the Netherlands, is an example of this. A balanced mix of art installations and dynamic play elements was used to create a relaxed interactive outdoor environment that can be enjoyed by various types of visitors.



Pure materials  
serve as a  
counter-  
movement to  
everything digital



Programmable spaces become a 'living skin' at tech-led exhibits like E-mmersive in Singapore





Universal's Wizarding World of Harry Potter creates a believable and authentic experience



## Building worlds

**Shawn McCoy**  
Vice president, JRA



Worldbuilding means visitors become part of the story

While theme parks and attractions have always tried to immerse visitors in engaging ways, recent themed lands such as Universal's Wizarding World of Harry Potter and Disney's Pandora – The World of Avatar have raised the bar to a new level.

By blending highly detailed thematic environments, state-of-the-art ride technologies, live shows, immersive retail and themed restaurants into a thoughtfully cohesive experience, these lands represent one of the more significant trends of the attractions industry: worldbuilding.

Worldbuilding is about ensuring that everything a guest sees, hears, touches or even tastes is authentic to the story upon which the overall experience is based. Ensuring this thematic continuity means

that the font featured on the land's environmental signage is as just as important as the media featured within its dark ride, for any detail that breaks the guests' suspension of disbelief may undermine their personal commitment to the story and ultimately detract from their overall experience.

Today's guests don't just want to walk through a themed land, they want to become a part of the story and have an effect on the overall environment.

New techniques and technologies are allowing us to immerse our guests like never before. By inviting our guests to not only explore the fantastic worlds we create, but also become central characters in our stories, we can attract new audiences, encourage repeat visitation and create lasting memories for visitors and their families.



## Immersive hospitality

**Christian Lachel**

Executive creative director and  
vice president, BRC Imagination Arts

We're in the midst of a great time for experiential design, when memorable experiences are valued more and more. People are looking for a bit of escapism, a break from their everyday lives, a venture into something meaningful and unique.

One trend that capitalises on this is immersive hospitality, which allows brands to build deeper relationships with their consumers by welcoming them to a very special, often exclusive experience that they could not get anywhere else. Prime examples include Guinness Airbnb, the hotel



Yayoi Kusama's *Infinity Mirrors* (above) translates well on social media; the Guinness Airbnb stunt



Star Wars: Galaxy's Edge will have a story-led hotel

at Disney's upcoming Star Wars: Galaxy's Edge land in Orlando, Florida, and beer hotels, which range from bed 'n brew inns to camping and glamping experiences. The common focus is immersion in a special world, executed with great style and service.

And of course, fun is always a priority, so we're seeing more adult playgrounds and artistic activities that

help us de-stress, increase creativity and keep us young at heart. They also provide great social media posts where people share their 'trophy' experiences. These often are limited exhibitions or pop-ups offering fleeting pleasures. Great examples of these include the Meow Wolf and Yayoi Kusama *Infinity Mirrors* exhibitions, as well as the Museum of Ice Cream.

Deputy commissioner Andrew Lackey for the Office on the Disabled, City of St Louis, Missouri, trials an hsd prototype for the upcoming Gateway Arch museum



### A new approach to universal design

**Bill Haley**  
Founder, Haley Sharpe Design (hsd)

Museum designers have incorporated accessible features into the spaces they create, with varying degrees of effectiveness. Recent trends within the field of heritage and museum design have however witnessed a fundamental shift from merely adding appropriate accessibility devices towards a more ethically-nuanced and cohesive approach to universal access and human-centred design. This change moves from providing

accessible 'alternatives' to exhibits, towards the provision of an equal experience for all. Technology and digital media play into this shifting dynamic, diversifying the way in which visitors can encounter collections and narratives.

The fundamental shift has been in the application of inclusive universal design,

which is as much about the design process as the philosophical position which embeds universal design into the planning and conceptual development, involving accessibility advisors and stakeholders intimately throughout this process.

The benefits of including additional accessible

experiences within museum spaces means that each and every visitor will have a much richer experience. It is no longer acceptable 'to do the best we can', applying piecemeal accessibility solutions on a random basis. If we are to truly achieve the reality of an equal experience for all, clients, stakeholders and design teams, must consider access at all points of the design process with continued dialogue, involvement and review by the end users.



## Journeys of self-discovery

**James Pappadopoulos**  
Senior director, strategy and business  
development, GSM Project

Many of our clients want to offer their visitors immersive and interactive experiences. But it's about more than just using technology to increase audience participation. Interactivity can be used as an entry point that takes visitors on a personal journey; one that allows them to discover a piece of themselves

through a subject matter. And increasingly, visitors are making it clear that they want to play an important role in the experiences they sign up for. They're seeking out moments that give them a sense of power, purpose or meaning.

In our own work, we've seen that interactive narrative journeys can be highly effective in personalising the visitor experience. In 2012, we

unveiled Star Wars Identities, a touring exhibition that takes visitors on an immersive, highly interactive and multimedia-rich exploration of their own identity through the lens of Star Wars. Now on stop 10 of a 14-city world tour, the exhibition has welcomed more than 1.8 million visitors. Its popularity is due in part to the way it helps visitors understand themselves. □



It's a multimedia-rich exploration of their own identity through the lens of Star Wars



Visitors learn about themselves throughout the exhibit



Star Wars Identities takes visitors on an interactive adventure





# Water Wonderland

CLADbook's

Tom Anstey talks to the team behind Morgan's Inspiration Island, a new waterpark designed for children with disabilities and special needs

**M**organ's Wonderland – an inclusive theme park that has catered to disabled guests since 2010 – launched a new accessible waterpark recently.

Founder and owner Gordon Hartman says his daughter, Morgan, who has cognitive delay and is now in her early 20s, has been the catalyst for all his projects. The \$17m Morgan's Inspiration Island is completely wheelchair accessible, offering a selection of waterpark activities, including raintrees, waterfalls, pools, geysers, water cannon and tipping buckets.

With five themed zones, a seven-storey lighthouse at the centre and spacious private areas available for guests, there's also a five-minute riverboat ride that takes visitors through a jungle setting, complete with bird and animal sound effects.



Inspiration Island is wheelchair accessible throughout





The target audience was involved throughout the planning stages

## Gordon Hartman

### Founder

#### Morgan's Inspiration Island

#### **Tell us about Inspiration Island.**

About seven years ago, we opened Morgan's Wonderland, which is the world's first ultra-accessible theme park. It's been incredibly successful, with people visiting from more than 66 countries and all 50 US states. People from all over the world come here to experience "ultimate inclusion".

As Morgan's Wonderland grew, people started asking about a waterpark. We brought a team together, similar to the team that developed the original park. That meant that we spoke to people in the community – people with special needs, people without, care givers, teachers, doctors, therapists – and pooled our ideas.

We worked with a grassroots approach towards understanding what was necessary in the waterpark, working directly with



Gordon Hartman is the owner of Morgan's Inspiration Island

the people who were going to use it. We did a lot of testing with special needs individuals, testing wheelchairs, water strength and much more.

The reason we did that was in order to maximise everything in the development of Morgan's Inspiration Island to make sure that it's ultra-accessible. Whatever your special need may be – no matter how acute – you can be a part of this park.

#### **What's different about the waterpark?**

Many aspects are specially designed. The water, for example, is warmed slightly to allow those with muscular issues to enjoy the park. Every element of the waterpark is wheelchair accessible, including the boat ride. Normally, guests would have to use a ramp up to the boat, but we did this without ramps. The seating area actually raises up in the boat itself.

#### **What makes Morgan's Wonderland and the new waterpark so special?**

It's really the whole culture of the park. People come here because, out of every four people who enter each day, three of them do not have special needs. Our attractions are not just designed for the special needs individual, but for everyone involved. We want family members and friends to also feel relaxed and be able to play.

“

We live in a world of exclusion rather than inclusion, but we hope talking more about inclusion will help change that conversation.

Many parks are built for 85 or 90 per cent of the population, but our parks cater for 100 per cent of the population. Nobody comes to one of our parks and says, 'I wish I could do that.' You can do everything. It's been thought out and designed that way.

### What other adaptations have you made?

We have two areas with tipping buckets. Some of our guests don't want to be dumped with water, some do. So, we created an alarm that warns people – a pleasing sound so as not to bother guests on the autistic spectrum – to let them know water is about to drop. For those with hearing difficulties, a

whirling sign alerts them. When guests see or hear the alarm, they can back away from the water if they don't want to be splashed.

Many waterpark elements have little wheels on them, which control the amount of water coming out of the waterplay features. If someone is fragile because they have physical issues, the intensity level can be lowered so they can enjoy it.



### What technology did you use?

We use RFID technology. If a visitor gets separated from their group or wanders off, their waterproof RFID wristband relays their location back to their companions.

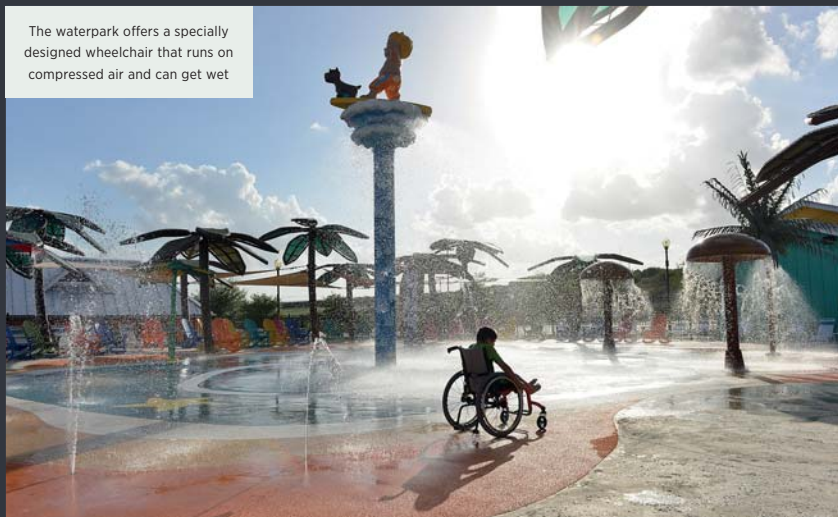
Many Morgan's Wonderland guests come independently, in their own battery-operated wheelchairs. But what if someone comes to the waterpark and they want to stay independent? They wouldn't be able to, because battery-operated wheelchairs can't get wet. So, we worked with the University of Pittsburgh, Pennsylvania to create a wheelchair that runs on compressed air. It takes no batteries. It's lighter and easier to move around in, so guests can get around, get wet and be independent.

We designed chairs with fabrics that can get wet. A guest with a muscular disability can transfer into a waterproof chair via the hoist in the special changing room.

### What has the reaction been?

There has been global interest in the new attraction and we're proud of that. We live in a world of exclusion rather than inclusion, but we hope talking more about inclusion will help change that conversation.

The waterpark offers a specially designed wheelchair that runs on compressed air and can get wet



## Jeff Kelso

Senior project manager  
WhiteWater West

### **Tell us about Inspiration Island. What was the starting point?**

I walked the existing Morgan's Wonderland park to learn about guest needs from a customer point of view. I reviewed the rides, talked to the ride operators and maintenance team, talked to some parents in the park and even saw Morgan playing with some guests that day.

Knowing customer needs made it easy to go back to the WhiteWater project engineering team and communicate the clear direction we needed to go in.

### **What challenges did you face?**

The project team had to ensure that any guest with any special need could load and unload safely and efficiently on the rides.

The term coined and widely used by the Morgan's team was 'ultra-accessible'.

We also made sure that the final designs would not make a guest feel different or special or unique. We wanted every guest, with or without disabilities, to enjoy the ride experience in the same way. Inspiration Island had to be all-inclusive.

### **Are there any next steps?**

You might say that this is a limited release product design, but the trend going forward could see WhiteWater West adapting our other water rides and products to be ultra-accessible as well.

Now that Morgan's Inspiration Island is up and running, I'm certain others in our industry will look for ways to make their rides ultra-accessible as well. I think that's a great reason to follow a trend. After all, we are in this industry to create fun experiences for all to enjoy.



We made sure the final designs would not make a guest feel different or special or unique. Inspiration Island had to be all-inclusive



Kids can control the intensity on the interactives

### Josh Martin

President and creative director  
Aquatic Design and Engineering

#### What was your role in the project?

We provide professional consultancy services, specifically tailored to water and water interaction. For Morgan's Inspiration Island, we were contracted to deliver the mechanical filtration structural system designs for the project. Our job was to provide the systems to service the play equipment supplied by WhiteWater West.

We had to make sure the water quality was beyond reproach. The park invested heavily in state-of-the-art chemical filtration equipment and heaters so they could guarantee they'd have successful play and no concerns over water quality.

#### Did your approach to the project change from the way you work normally?

One thing that was especially critical was making sure that these systems were built in a way that if something did go down for



service, we could still operate as normal. Understanding that a guest's visit may be a once-in-a-lifetime chance, we took the idea of guest satisfaction very seriously. We did everything in our power to have backup or redundant systems that can easily be swapped out to be sure they are safe.

#### What kinds of technology did you use?

The brains of our system is a chemical controller that enables remote monitoring of the water, allowing us to see temperature, chlorine and PH levels and automatically adjust all of those. One goal was to run



Understanding that a guest's visit may be a once-in-a-lifetime chance, we took the idea of guest satisfaction very seriously

minimum levels of chlorine because we knew how sensitive the kids could be to the smell or to chlorine on their skin. With the heated system, it was designing a system that would bring heated water to a very exact level. I've never seen a project so specific on what we needed to achieve.

#### Are you pleased with the results?

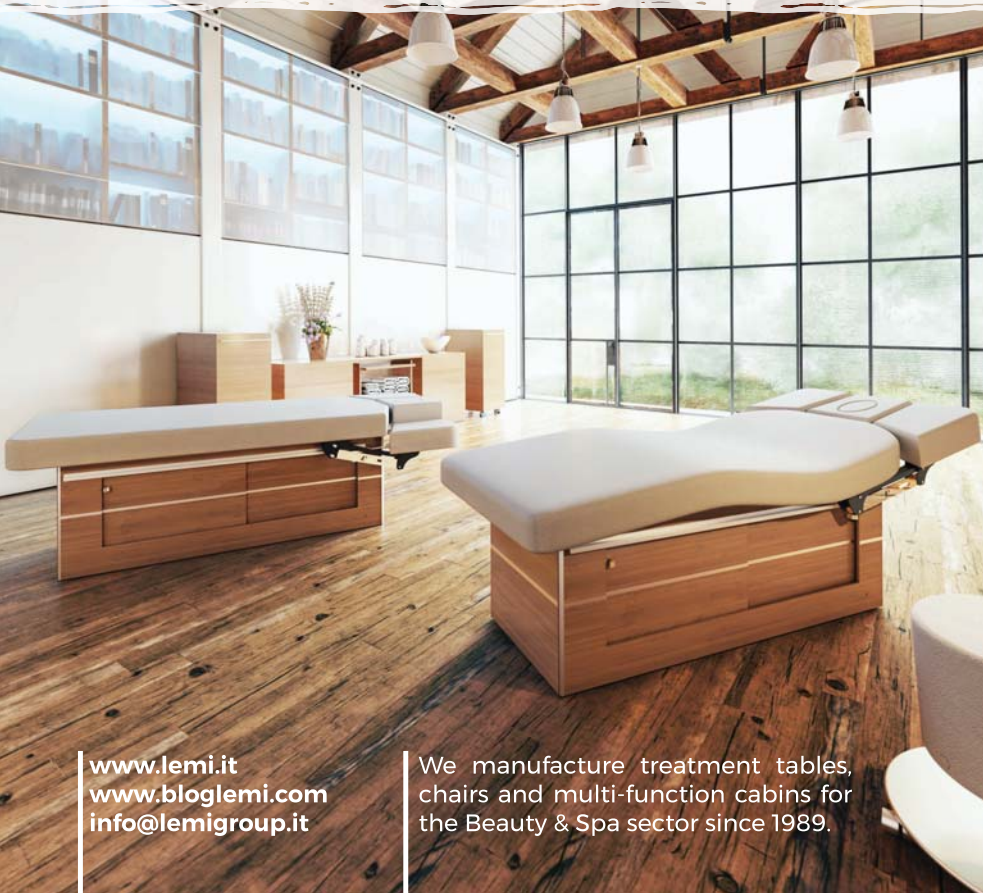
Letting kids be kids, regardless of what's happening in their lives, is something that makes us happy. To see the smiles on their faces and to know there's a place like this that exists, is something that will always be a feather in our cap as a design firm. □



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# STANDING OUT

The past year saw a slew of innovative sports venues opening their doors. What makes these projects special?

## ANCHORING A LEISURE HUB

### Little Caesars Arena

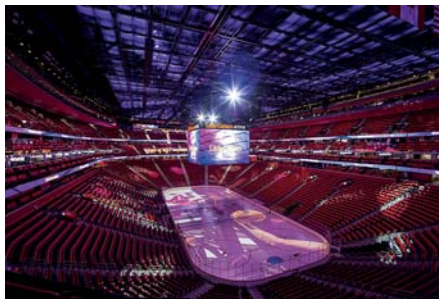
● Detroit, Michigan

**L**ittle Caesars Arena is a sports and entertainment venue and new home to the National Hockey League (NHL) franchise the Detroit Red Wings and National Basketball Association (NBA) team the Detroit Pistons.

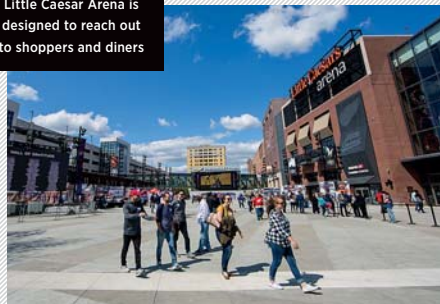
The versatile arena has already hosted major performers including Janet Jackson, Jay-Z and Lady Gaga, and it will also host the US Figure Skating Championships in 2019.

The project stands out for its deconstructed model, which puts the usual amenities outside the arena rather than inside. This allows Little Caesars to act as the anchor to a wider leisure district of shops, restaurants, bars and cafés, attracting regular shoppers and diners as well as people specifically visiting the arena for a game or event.

HOK's approach was driven by the need for sports venues to better connect to their communities and generate life and activity in urban districts year round. To integrate the arena with the surrounding community, the lower main concourse is completely at grade – meaning district and concourse activities both take place at street level.



Little Caesars Arena is designed to reach out to shoppers and diners



STADIUM STATS

Architect: HOK

Capacity: 20,000

Cost: US\$1.2bn (total development)

Completed: September 2017



The approach aims to forge a connection with the community and the sports stadium

A membrane-style canopy unites the building structures



## HIGH-TECH ROOF CANOPY

### Wanda Metropolitano

● Madrid, Spain

Rather than starting from scratch, Spanish architects Cruz y Ortiz expanded Atletico Madrid's existing stadium, Estadio Olímpico de Madrid, a 20,000-seat athletics venue built in 1994, by incorporating parts of the original concrete stands. However, much of the remainder was demolished to more than treble its capacity.

Although inspired by the team's former home, the Vicente Calderón Stadium, Cruz y Ortiz wanted to do something original.

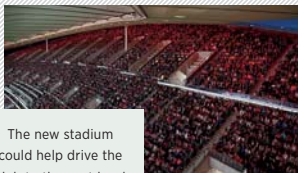
"Our aim was not to recreate the famous atmosphere or appearance of the Calderón," says studio co-founder Antonio Cruz. "This was a new proposition, and our responsibility was to find something new to help the club take another step forward."

The biggest challenge was unifying the existing elements of the Olímpico with the new Wanda Metropolitano, something they achieved by stretching a canopy roof over the venue.

"It brings everything together as one building," says Cruz. "We adopted a new technique, never used before, to make a canopy membrane – using an exterior steel and double height compression ring, an interior traction ring and two sets of radial cables. It's the most innovative part of this project."

Built by construction firm FCC, the roof weighs around 6,336 tons.

Other features of the stadium include a fan plaza, jumbo screens, a videomapping facade and WiFi enabled stands. A retail megastore will be among 16 commercial outlets, and a club museum is also planned.



The new stadium could help drive the club to the next level



#### STADIUM STATS

Architect: Cruz y Ortiz

Capacity: 68,000

Cost: €300m

Completed: September 2017

## New openings

Khalifa International Stadium will keep the stands below 28°C

### FUTURISTIC COOLING SYSTEM

## Khalifa International

● Doha, Qatar

The first host venue of the 2022 FIFA World Cup in Qatar, the Khalifa International Stadium, has been renovated and expanded. The 1976 stadium has been reinvented by local architecture firm Dar Al-Handasah.

It boasts a technologically advanced cooling system to keep the pitch at 26°C (79°F) and the stands at 24-28°C (74-82°F) year-round, "while using 40 per cent less energy than traditional cooling methods."

Hilal Al Kuwari, chair of technical delivery at Qatar's Supreme Committee for Delivery and Legacy, says: "Fans of all ages and nationalities have a lot to look forward to when they visit the stadium, including the cooling technology we promised during our bid, a pitch that was developed at our one-of-a-kind Turf Nursery, and an immense atmosphere Arab fans alone can produce."

#### STADIUM STATS

Architect: Dar Al-Handasah

Capacity: 40,000

Cost: Undisclosed

Completed: May 2017

A larger roof has been added over the entire spectator area, as well as new VIP areas, 61 guest suites, a media zone, a sports museum and new changing areas.

Seven other World Cup stadiums are currently under construction, and the country's metro network is being upgraded so that journey times between all World Cup stadiums and accommodation locations are below one hour. This will mean fans can watch more than one live match per day for the first time the tournament's history.



New VIP areas and guest suites have been added





PHOTO: CITY PHOTOGRAPHY

Anna Meares Velodrome  
is able to hold about  
4,000 spectators

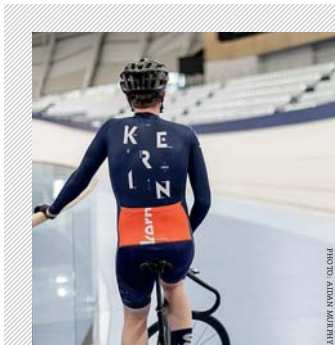


PHOTO: ALISON MURPHY

The venue has a 250-metre cycling track

## DAYLIGHT-FILTERING ROOF

### Anna Meares Velodrome

● Queensland, Australia

A state-of-the-art velodrome, named after one of Australia's most successful athletes, is open in Chandler, Queensland, and hosted the Gold Coast 2018 Commonwealth Games Track Cycling competition.

A semi-translucent, semi-opaque polytetrafluoroethylene (PTFE) white membrane fabric covers a steel web structure to create a 10,000sqm roof. The membrane allows daylight to filter through onto the competition standard 250-metre timber cycling

track and can also be projected onto during events.

The sloping shape of the roof is inspired by the sport, and is taller along the straight lengths of the track to accommodate more seating. Seating is also very versatile, with 1,500 maximum-view permanent seats and the ability to hold an extra 2,500 seats. A multi-use sports court fills the centre of the track.

Part of the larger Sleeman Sports Complex, the energy and water-efficient velodrome connects to the rest of the site and nearby BMX circuit with plaza spaces.

#### STADIUM STATS

Architect: Cox Architecture

Capacity: 4,000

Cost: US\$45m

Completed: November 2016



## New openings

Royal Arena hosts the 2018 world ice hockey competition



## ALLOWING A GLIMPSE INSIDE

### Royal Arena

● Copenhagen, Denmark

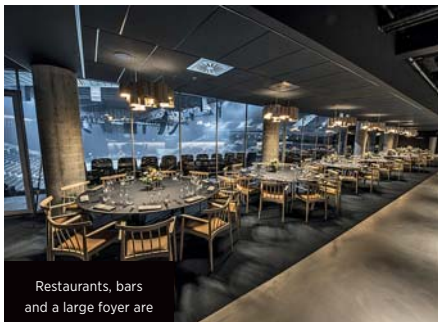
**D**enmark's new national arena is designed to host national and international music, culture and sports events, including the 2018 World Ice Hockey Championships.

It's formed of an organic podium supporting an elliptical structure with a wave-like semi-transparent facade.

According to the architects, the podium connects to the adjoining neighbourhood – with a variety of small plazas, pockets and gathering areas carved into the perimeter to absorb the movement of spectators and “promote activity and liveliness when the building is not in use.” Restaurants, bars, cafés and a large foyer are open to the public.

The 35,000sqm venue has a capacity between 12,500 and 15,000 depending on the type of activity taking place. During an event, people outside the building can enjoy glimpses of what is happening within through the vertical wooden fins that enclose the glass-aluminium facade.

“We started the design process within a radical rethinking of the arena typology, followed by a challenging process with form and materials to create a catalyst for life, social meetings and activities in the new urban area,” said the architects in a statement. “It's more than just a beautiful setting for outstanding cultural and sporting events – it is designed to be a good neighbour to its community.”



Restaurants, bars and a large foyer are open to the public



STADIUM STATS

Architect: 3XN

Capacity: 15,000

Cost: €134m

Completed: February 2016





The Mercedes-Benz Stadium is to host the 2019 Superbowl

## WORLD'S GREENEST STADIUM

### Mercedes-Benz Stadium

● Atlanta, Georgia

**T**he Mercedes-Benz Stadium in Atlanta, Georgia, has become the first sports stadium in the world to achieve platinum certification for Leadership in Energy and Environmental Design (LEED).

With an advanced stormwater management system and 4,000 solar panels – enough to power nine National Football League (NFL) games – the home of the Atlanta Falcons and Major League Soccer (MLS) team Atlanta United scored a record 88 points in its rating by the US Green Building Council.

"We set out to build a venue that would not only exceed expectations but also push the limits of what's

possible in terms of stadium design, fan experience and sustainability," said Atlanta Falcons and Atlanta United owner Arthur Blank.

"We set a goal of achieving the highest LEED rating because it was the right thing to do for our city and the environment. With this achievement, we have a powerful new platform to showcase to the industry that building sustainably and responsibly is possible for a venue of any type, size and scale."

The structure features an eight-petal plastic polymer retractable roof and huge interior bowl, the world's largest 360 degree HD video screen, a fan plaza, and an edible garden created by Atlanta-based urban designers HGOR. □



Sustainability was important through the design stage

#### STADIUM STATS

Architect: HOK

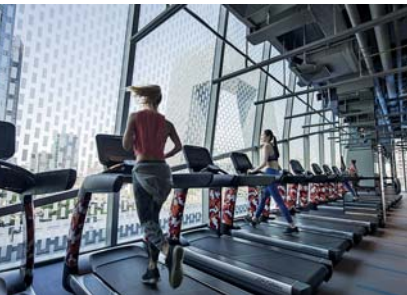
Capacity: 83,000

Cost: US\$1.5bn

Completed: August 2017

# BODY BEAUTIFUL

With a growing awareness of the link between wellbeing and our surroundings, gym designers are creating spaces that are more inspiring to exercise in. CLADbook looks at the latest examples



The design was inspired by street art and by the neighbourhood's industrial buildings

## Trainyard Gym, Hotel Jen

### Beijing, China

A 3,500sqm Shangri-La health club designed to "inject energy into the heart of Beijing's central business district," opened in the Chinese capital last June.

The 450-bedroom Hotel Jen Beijing – a Shangri-La property – operates the Trainyard Gym, keeping it open 24/7 in a bid to cement the facility as "the city's go-to spot for fitness, recreation and nutrition".

Created by Stickman Design, the club's look is inspired by street art and the

area's industrial buildings.

The gym is split over two floors, and features graffiti artwork and floor-to-ceiling windows offering panoramic views of Beijing and of Rem Koolhaas' landmark CCTV Tower opposite.

The gym features 11 dedicated work-out zones, a Mixed Martial Arts area with a boxing ring; a 25-metre lap swimming pool with skylight; a sauna, steamroom and whirlpools; a juice bar; and a range of studios including a spinning and a Pilates room.



Marcos Cain, founder of Stickman Design, handled the design of the Trainyard Gym





The Trainyard Gym consists of 3,500sqm of space set across two levels. It is open 24/7

The interiors are clad with beautiful, rare marble, which we have retained

JOYCE WANG



IMAGES: EQUINOX

The former bank was transformed by Woods Bagot and Joyce Wang



The original marble cladding was retained, and contemporary features added

## E St James's

### London, UK

Luxury health club operator Equinox, part of Related Companies, has converted a historic bank in London's Mayfair into a gym, spa and member's lounge.

The ground floor, basement and mezzanine levels of 12 St James's Street have been transformed by architects Woods Bagot and interior designer Joyce Wang to create "an intimate, science-fuelled environment that awes with beguiling spaces and exceptional details".

External alterations to the building, renamed E St James's, have been kept to

a minimum, although new louvres have been at basement level. Internally, major structural modifications have been made to the mezzanine to accommodate the club's cardio zone and treadmills.

Speaking about her design approach, Wang told *CLADbook*: "The interiors are lined with beautiful and rare marble, which we have retained.

"We inherited this amazing architecture, but at the same time we wanted to create interiors characterised by bold modern forms and materials to give the space a new life."





SHoP principal Coren Sharples, whose practice designed the American Copper Buildings

## American Copper Buildings

### New York City

The new American Copper Buildings in New York feature some pretty spectacular fitness facilities, including a 23-metre indoor lap pool and a whirlpool hot tub housed in the dramatic 30-metre-long suspended skybridge that links the two towers.

The SHoP Architects-designed buildings also feature a multi-level fitness centre managed by La Palestra with a rock climbing wall facing the Empire State Building, a Turkish-style marble hammam with plunge pool, yoga and dynamic movement studios; and a private spa with treatment rooms.

The rooftop of the East Tower features an infinity-edge swimming

pool, a landscaped sky bar, an open-air lounge and dining and grilling areas. A new landscaped park surrounds the property.

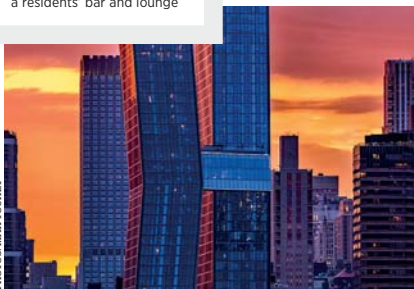
Coren Sharples, one of the founding principals of SHoP Architects, told *CLADbook* that including a wealth of fitness facilities and leisure amenities is the future for private developments.

She argued that the addition of leisure spaces – often publicly accessible – to private residences is “now actually seen as a draw” for developers.

“People come to cities not just to live and work, but also to play, and leisure plays an enormous part in that,” she said.



The glass skybridge that links the towers houses an indoor pool and hot tub, as well as a residents' bar and lounge



PHOTOS: MAX TOURNEY





WG+P director  
Phil Waind; WG+P  
designed Core Collective's  
Kensington gym inside  
abandoned residences

### Core Collective

#### London, UK

Boutique lifestyle gym operator Core Collective has enlisted the help of Waind Gohil + Potter Architects (WG+P) to "push the boundaries of gym design" with a second gym set to be built in St John's Wood in London after Westminster City Council gave the project the go-ahead last summer.

The gym will feature contemporary design, a highly flexible layout and adjustable exercise spaces. A cafe and health-focused bar will be added to make it a sociable and inclusive environment.

This is the second property for Core Collective.

The company's health club in Kensington – also designed by WG+P – opened in 2016. For that project, WG+P transformed the ground floor and basement of an abandoned mansion block using a palette of industrial materials of polished concrete, steel framed glazed screens and exposed services, alongside colour-changing lighting.

A third site is planned for Knightsbridge, although this has not yet won planning permission.

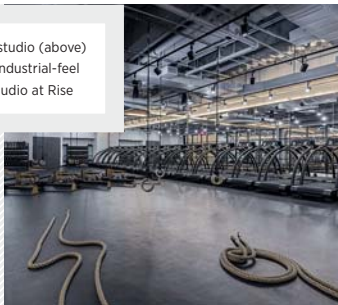


As with the Kensington site, the new gym will feature contemporary design and flexible exercise spaces

PHOTOS: WG+P



The yoga studio (above) and the industrial-feel Flight studio at Rise



WeWork's head of interiors Brittney Hart created a playful gym experience; artificial grass adds interest to the workout space (above)



## Rise by WeWork

### New York, New York

Co-working organisation WeWork has opened its first gym, in New York's financial district.

Designed in house, with head of interiors Brittney Hart leading the project, the gym is divided into several spaces, each with a different feel.

The Fight and Flight studios offer kickboxing, boxing, mixed martial arts classes, and cardiovascular activities,

and have a raw, industrial feel, with exposed stone walls and rubber floors. The Turf area features artificial grass flooring and is designed to make members feel as though they're exercising outdoors.

A pilates and yoga studio features pale wood panelling and a dark wooden floor, while natural stone and pale colours create a calming atmosphere in the Superspa spa area. ■

the 1990s, the number of people in the world who are under 15 years of age is expected to increase by 1.2 billion.

As the world's population grows, the demand for food and other resources will increase. The world's population is expected to reach 9 billion by the year 2050. This means that there will be 9 billion people competing for the same resources that we have today. This is a huge challenge for the world's leaders and citizens.

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**CLADbook** 2018

# research & commentary

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# Why we need to talk about health

At Space Syntax, research and analysis are helping define how urban professionals have a role to play in achieving healthy outcomes for all. Eime Tobari and Eleri Jones discuss some of the findings

Until recently, the relevance of health to the realm of urban planning and design was not widely accepted or acknowledged. Now, however, there is a common understanding globally that health is a complex issue that relates to all aspects of our everyday lives and is influenced by the built environment, as well as by sociocultural and economic factors.

In our increasingly complex and interrelated urban environments, this means that positive health outcomes must be considered holistically and cannot be focused on particular segments of the population. This statement was recognised by the 9th Global Conference on Health Promotion, which was held in Shanghai, China, in the November of 2016, when the goal of “health for all, all for health” was agreed upon and was furthermore referenced by Chinese president Xi Jinping in his opening speech at the event.

Politicians, at both the city and national levels, will play a critical role in ensuring that positive health outcomes for all are prioritised. However, professionals in urban planning and design around the world are well positioned to take a lead role on this agenda by creating places that support better health outcomes and the wellbeing of citizens in urban areas, many of which are growing at a rapid pace.

## Design options and health outcomes

A number of guidelines and tools have been developed by multilaterals, governmental and voluntary sector organisations to ensure that positive health outcomes are included in decision-making processes at every governance level. At the international level, the World Health Organisation (WHO) published a Health Economic Assessment Tool (HEAT) that estimates the economic impact of walking and cycling. They also promote the Health Impact Assessment (HIA), which



Urban design can take the lead to create places that benefit citizens' health

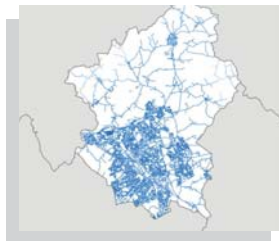


## Urban planning

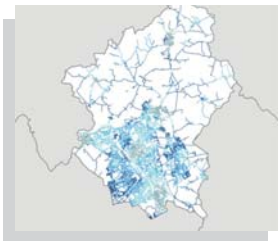
### MILTON KEYNES

The images to the right show the number of job opportunities (commercial uses) in Milton Keynes reachable in 15-minute journeys in each transport mode. The darker it is, more job opportunities available within 15-minute journeys. Car dependency was calculated as a ratio between the number of job opportunities available within the same journey time between public transport and private vehicles.

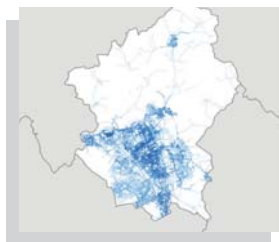
The darker is it, the greater the advantage of private vehicles is. The closer to pale grey, the closer the advantage of both transport modes are. However, in this case, the public transport option does not outweigh private vehicles.



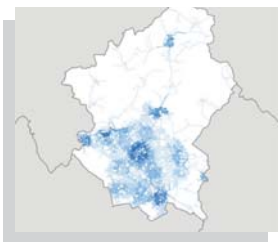
PRIVATE CAR



PRIVATE CAR VS PUBLIC TRANSPORT



PUBLIC TRANSPORT



WALKING

## Streets form the foundation of our urban fabric and it is crucial this foundation encourages behaviours that contribute to health

is a framework to assess the health impact of policies, urban planning and development projects. Sustrans, in partnership with TAS Partnership and Living Streets, developed an Active Travel Toolbox, which links health outcomes with investment, housing growth and air quality. Transport for London published *Healthy Streets for London*, which includes guidelines in promoting active travel (walking, cycling and public transport).

While all of these toolkits and guidelines are very helpful in terms of highlighting the importance of good health outcomes, in practice, the principles which underpin these guidelines are often not applied to urban planning and design decisions. This is in part because there is a lack of quantifiable measures which urban professionals can use to objectively test the impact that design options might have on health outcomes.

### Using urban layouts

Space Syntax is an approach to understanding how the spatial structure of places impacts movement

and behaviour. Recent advances in our analytical capability have enabled us to start to investigate how health outcomes are impacted by the spatial structure of urban areas. This research has led us to develop tools which allow for a quantitative assessment of different policy interventions, such as increasing public transport provision in underserved areas.

It is generally accepted that increased public transport provision improves access to services and employment. This in turn can have a positive impact on health, both physical and mental, as it reduces social isolation and encourages people to undertake active travel. While these associations are well known, it is not easy to identify where exactly the improved public transportation should be routed to ensure it improves the lives of the people that need it the most.

### Street network analysis

Through Space Syntax analysis, we can provide insights with this level of granularity, enabling evidence-based



Many different types of place can be accessed by foot in Greenwich

decisions on a range of possible policy interventions. For example, analysis of the maps on the opposite page can demonstrate why there is a high level of car dependency in Milton Keynes: the street network, when combined with public transport availability and where jobs are located, means that private vehicles become a natural choice for a large portion of the population. The maps can also then show policymakers precisely which parts of the city would benefit most from greater public transport availability.

On the other hand, the London Borough of Greenwich, shown in the image on the right, has a spatial structure which is far more 'compact'. Our analysis of the street network in the image below shows how many different land uses are available within a five-minute walking distance from many residential buildings. The warmer the colour is, the more types of land uses residents can reach within five minutes, on foot.

What this analysis means in practice is that policy makers can see that many residents in this area are



#### LONDON BOROUGH OF GREENWICH

Different land use types within a five-minute walk

- Retail shops
- Food shops & markets
- Services
- Community facilities
- Open spaces
- Leisure
- Residential
- Designated town centres

## Urban planning

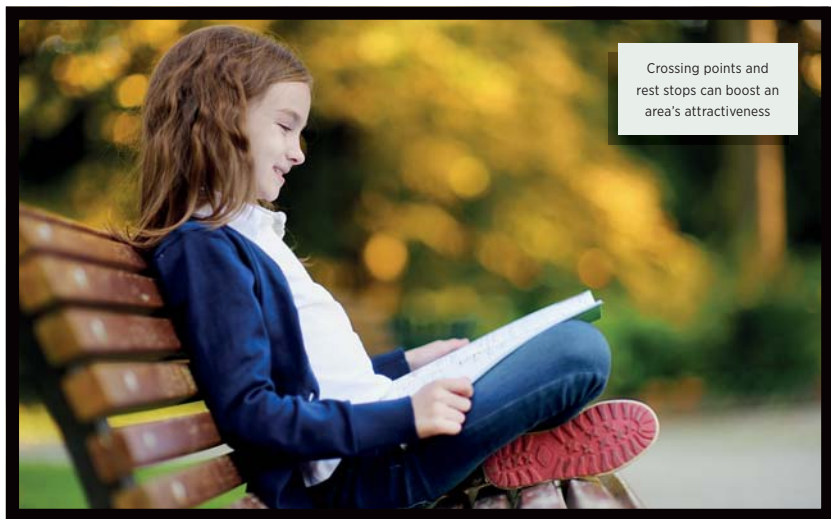
able to access effective town, local and neighbourhood centres. This means cars are less likely to be a necessity for day-to-day activities (apart from perhaps a commute to work, which is not included in this analysis) and therefore air pollution is likely to be lower. Residents are also likely to be getting regular exercise as they go about their daily lives. However, even in this compact urban layout, there are still areas that are relatively segregated. Using this tool, planners can see precisely where these areas are and what additional public transport would be most effective to improve access to local services for people living there.

### Creating healthier places

The outputs of these tools, and the conclusions derived from them, may appear to be a statement of the obvious, which are underpinned by relatively simple analyses. However, two overarching lessons for those involved in planning and designing cities can be drawn from them. Firstly, our analysis demonstrates

how significant a factor spatial structure is in encouraging active travel. Streets form the foundation of our urban fabric and are not as easy to change as public realm or individual buildings. It is therefore crucial that this foundation is designed to encourage behaviours that contribute to better health and supports creation of healthier places.

By this, we mean a built environment that supports and promotes the physical and mental health of the people who use it. This requires the right balance of interconnectedness, movement, awareness, encounter and exchange at every scale. It means the delivery of places in which different kinds of human activity can thrive - as demonstrated in the case study on the opposite page, which is a proposal for improving the layout of Union Square in Washington, DC. Space Syntax proposed improving exiting routes and crossing points, which increased walkability around the square as well as creating resting spots to watch other people from – one of the main activities in public places.



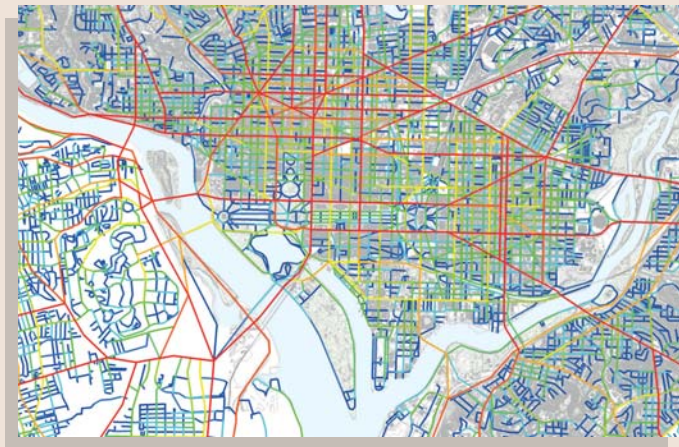
Crossing points and rest stops can boost an area's attractiveness

Spatial  
accessibility

High



Low



#### UNION SQUARE, WASHINGTON, DC

Union Square is located at the eastern end of the National Mall and in front of the State Capitol Building. The design proposal extends the exiting east-west routes of the National Mall straight into the heart of the space. Combined with improved crossing points, this will enhance the connection between the National Mall and the space.

In Union Square, a series of convenient diagonal routes connect visitors with

strategic points in the pedestrian movement network, such as the roundabouts at the ends of Pennsylvania, Maryland and Louisiana Avenues.

A new north-south link is introduced along the alignment of Second Street connecting the site better locally and with the US Botanical Gardens. Within this network, new spaces to rest and enjoy the Square and its significant views are created around the basins and at the

basin of the Grant Memorial. These locations will be excellent spots for watching people, a main activity in public space. Such stationary activity will contribute to the attraction of this space, which will increase significantly as a result of the redesign. The combined impact of the proposed spatial interventions would have a significant impact on pedestrian activity potentials within the space as well as on the eastern part of the National Mall.

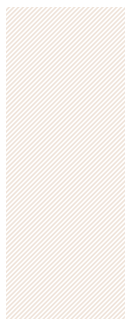
Secondly, while the links between urban form and health outcomes are accepted and well known, the application of systematic, quantitatively driven analysis to inform specific planning decisions is not commonplace. Instead, generalised principles are applied in a broad-brush manner to all urban environments, without considering the unique spatial characteristics that impact how they function and how they influence behaviours.

A targeted application of the very sound principles set out in documents such as the HIA is required to deliver the known health benefits of, for example, active travel. This requires complex models that combine a range of datasets spatially, such as the ones shown above. At Space Syntax, these models are

called Integrated Urban Models and they link urban planning and design parameters, such as street layout, land use, plot sizes and development quantum, with health-related outcomes such as walkability and car dependency – and allow us to see interactions between them. An example of this can be seen on the following page, which shows the proposed master plan of Darwin city centre in Australia and the creation of a new, local, walkable centre in an Extension Area.

#### A data-driven and spatial approach

Health is important to all of us and, of course, to our future generations. So why has the topic not been a top priority in urban planning and design discussions? It is not necessarily because urban





### DARWIN, AUSTRALIA

In 2012, the City of Darwin secured a grant from the Commonwealth Government of Australia to produce a master plan for the city centre of Darwin. The purpose of this plan is to provide a road map for development of the city for the next 20 years. To accommodate growth, the city centre needs to be extended and reinforced. Space Syntax was asked to join a design team led by Design Urban. Our role was to provide comprehensive urban analysis and strategic design input to support the creation of the master plan. A key aim of the project was to facilitate private sector investment and population growth through the production of high quality public realm.

Space Syntax's work has underpinned the creation of the Darwin City Centre Master Plan. Quantified indications of its social and economic impacts have facilitated meaningful discussions between different disciplines, bringing architects, transport engineers, planners and politicians together with a wide stakeholder base.

planners or designers do not recognise its importance – it is because integrating health outcomes into the decision-making process is very challenging.

We have seen how using data and sophisticated modelling techniques, such as those detailed above, can help to make this task easier. However, this cannot be undertaken by planners alone. There is still a need for open, collaborative discussion across professions, disciplines and sectors, underpinned by robust evidence and principles, if design is to realise positive health outcomes for all citizens. Health should be a central topic throughout the process of planning and design from strategic spatial strategy, transport strategy and land use allocations through to public realm and building design.

For this process to be efficient and effective, a collaboration between planning, transport and public health teams in particular is essential. There are already some exciting, formalised collaborations in existence. For example, Transport for London has a public health



Public health should be a central topic in the planning of urban spaces



We need to start acting if we are to avoid the challenges that poor health-related outcomes pose for future city dwellers



expert who is pushing a healthy places agenda. In the UK, the Local Government and Public Involvement in Health Act 2007 requires Primary Care Trusts to work with Local Authorities to develop a Joint Strategic Needs Assessment (JSNA), which links various functions of Local Authorities with health issues and promotes collaborations between a range of departments.

### Time to act

Such collaborations can also be supported and facilitated by sharing datasets and models. This can help align work in different teams by creating a common ground, which also makes cross-team communications easier. In this way, data and modelling can provide a common language between various experts and facilitate collaborations between them.

But we also need to go beyond talking and start acting if we are to avoid the very real challenges that poor health-related outcomes pose for the future generations who inhabit our cities. We know, through careful analysis of evidence and case studies, that positive

health outcomes can be delivered through a variety of design decisions that typically require insights and inputs from many different disciplines and professions.

We now need to apply focused, localised data analytics to identify exactly where that expertise and insight can be applied to best effect, creating a planning and design process which can respond to the specific needs of the people that live in our cities. □

**About the authors** Dr Eime Tobari, associate director at Space Syntax, has extensive research experience in architecture and sociology, focusing on the relationship between space and its behavioural, social and economic outcomes. She has been involved with projects ranging from the internal layout of buildings to city-wide masterplanning. Tobari has been focusing on promoting a health and wellbeing agenda in urban planning and design.

Eleri Jones, associate at Space Syntax, leads the Urban Policy and Foresight team, which supports the strategic development and growth of the company through research and stakeholder engagement activities. Prior to this, Jones led the Foresight Future of Cities project in the UK Government Office for Science and held a variety of posts in the Cabinet Office and DCLG.

# Flood mitigation in museum design



Flooding poses a dangerous risk to museums and their collections. **Scott Newman**, partner at Cooper Robertson, shares his firm's experiences on working on The Whitney Museum in New York



**A**s museums and other collecting institutions consider the risks to their collections and buildings from severe weather events and sea level rise due to climate change, strategies in both design and construction of new and renovated buildings have emerged to mitigate flooding and other related risks.

When it comes to how budgets are spent, these approaches firstly prioritise the safety of people, secondly the protection and preservation of collections and thirdly the maintenance of building integrity. Once these risks have been defined, then specific design proposals can be developed and priced to establish the best approach.

This process and the resulting resilient design features led to a successful outcome for the new Whitney Museum of American Art in New York City, New York.


#### **CASE STUDY: The Whitney, NYC**

The location of the new Whitney adjacent to the Hudson River is particularly vulnerable to water level rise and storm surge. The design of the building, by Renzo Piano Building Workshop in collaboration with Cooper Robertson, anticipates the effects of climate change and protects the museum's staff and collection from water level rise.

In the original design, the team elevated the lobby an additional 30.5cm (1ft) above the Federal Emergency Management Agency (FEMA) recommended 2.7 metres (9ft) elevation to 3.05 metres (10ft). All art galleries begin on the fifth floor and extend upward, with no permanent gallery or art storage below level five. When Storm Sandy hit New York in October 2012, the construction of the museum was well underway and basic elements of the building's design were in place to protect the structure in the case of flooding.

The timing of the storm enabled the team to observe how the structure could withstand a serious flooding event. It withstood the storm well, but the unprecedented high water levels brought over 6 million gallons of river water into the building's 9.1-metre-deep (30ft) basement.

Following the storm, FEMA revised its flood zone maps, recommending a 4 metre (13.5ft) elevation for construction on the Whitney site. Sensing the revised elevation still seemed too conservative, the Whitney team conducted an international search for an advisor to assist in developing a revised flood elevation recommendation. They selected WTM Engineers of Hamburg, Germany, and their partner, the Franzius Institute for Hydraulic, Waterways and Coastal Engineering of the Leibniz University in Hanover, both well-versed in protecting an urban environment from floods.



When Storm Sandy interrupted construction of the Whitney, flood mitigation plans needed to be revised

The Franzius Institute undertook an extensive study of New York Harbor and its environmental history, advising the building be protected up to a 5 metre (16.5ft) elevation. Based on the recommendation, the design team and WTM devised temporary and permanent modifications for the Whitney structure to protect it against future storm events.

### Recalibration and retrofits

In the case of flooding, the main goal is to preserve the ground floor integrity as completely as possible, which will ensure that the entire building is safeguarded.

To do this, the team checked all possible water infiltration points within and above the 5 metre elevation. Reinforced concrete walls form the cellar and protect the building on four sides, but the loading dock and staff entrance on the west side are at street level, or 1.8 metre (6ft) elevation.

To protect this potential water entry-point, the team enlisted Walz and Krenzer – manufacturers of watertight doors for naval vessels – to build floodgates that would prevent water from entering through these locations. The floodgates consist of 25cm-thick aluminium plate with a hinge that seals water out by locking with steel plates embedded into reinforced building liner walls. It only takes

The team  
enlisted Walz  
and Krenzer –  
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build floodgates

two Whitney staff members to close the gates in case of a flood emergency.

Cooper Robertson redesigned the surrounding structure to incorporate the floodgates into the building's design. The reconstruction required the removal of pre-cast concrete from an existing stair tower. During this process, the pre-cast concrete on the levels above had to be temporarily secured in place while the

new section, incorporating the floodgate, was installed.

A crucial element in the Whitney's flood mitigation strategy is continuity; the floodgates only work if the rest of the building is uninterrupted sealed. Waterproof membranes behind the secondary reinforced concrete walls shield the structure from flooding. Foundation waterproofing was used to seal concrete penetrations made for electrical conduits, gas service, electrical service and piping, maintaining the structure's integrity.

### Temporary barriers

The design team also devised a temporary barrier wall protective system to be deployed in anticipation of major flooding. In the hours before a storm, a private contractor will bring the temporary barriers from a nearby warehouse and assemble them on site.

#### Walz & Krenzer

US-based Walz & Krenzer custom designs and manufactures watertight doors and hatches for the marine industries. The company has been supplying the market since 1939, including to naval and cargo ships. State-of-the-art engineering technologies are used in the fabrication of the closures, which can be made to protect against ballistic shocks and blasts.



Walz & Krenzer designed and built floodgates for the Whitney Museum







A continuous concrete kerb on the building's plaza supports vertical aluminium posts that are bolted into the plaza and hold horizontal aluminium 'logs'. The temporary barriers will protect the lobby's expanses of glass walls that could be vulnerable to pressurised water. Extensive structural reinforcement was added to the plaza concrete to accommodate the additional anticipated water weight. The plaza's drainage system was redesigned by engineers Jaros, Baum & Bolles so any water that might leak or splash over the temporary barriers drains away from the dry, protected area on the building side of the walls.

A wall of aluminium 'logs' can be deployed if flooding is expected to protect the lobby's large expanses of glass walls

flood the basement. Therefore, the placement of all electrical equipment was adjusted to sit 35cm above the cellar floor elevation. In cases where this was not possible, a concrete barrier provides perimeter protection.

In the worst-case scenario of a floodwater rise above 5 metres elevation, the structure is designed to endure flooding of the lobby level, to deflect the force of any debris impact, and to prevent any stray building materials from blowing off the structure and causing damage or injury.

The severe impact of a flood of this magnitude on the city supersedes the concern for resuming building operations as quickly. Instead, the Cooper Robertson design gives the staff peace of mind that the building will not cause harm to its community during future unprecedented weather events.

The devastating effects of Sandy on the infrastructure of New York inspired a transformation in the practice of flood mitigation, and the timing of the Whitney put the project team at the forefront of addressing future resilience. □

### Worst-case scenarios

An additional change to the original building design included the rethinking of the building's emergency energy sources. Instead of the 3.78 cubic meter (1,000 gallon) fuel oil tank originally planned for the museum, insurance advisors suggested accommodating the largest tank possible.

Therefore, the building has a 15 cubic meter (4,000 gallon) tank that provides as much emergency fuel as possible. This means the building's systems, particularly the pump system, can run for a far greater duration than originally planned.

The team did precise calculations to account for numerous flood event scenarios, including the failure of various functions. For example, if the water pumps should fail, it was determined that roughly 35cm of water may then

**About the author** Scott Newman is a partner at Cooper Robertson and a leader of the firm's cultural practice. He is a member of the American Institute of Architects' College of Fellows. He has worked on more than 40 museums, including the Museum of Modern Art, the Whitney Museum of American Art, and the upcoming Gateway Arch Museum, the Studio Museum in Harlem and the New Museum.

Information integration

# THE BENEFITS OF



PHOTO: PAUL STEPHEN FORD

# DATA-LED DESIGN



New data capture and analysis techniques can be implemented in the design phase to ensure stadiums, arenas and other high-traffic spaces function successfully, says Movement Strategies' Simon Owen

Architects are under continued pressure to create original, functional designs that can be delivered on time and on budget, while maximising the user experience. The world around us is changing fast, and the integration of data-led decision making into the design process can prove invaluable in ensuring that spaces are fit for purpose.

If utilised correctly, data can provide unparalleled information on how a space is used across a variety of contexts and demographics. With the evolution of these processes, architects have huge opportunities at their disposal to allow data and people movement analytics to shape their designs – from concept planning all the way through to event and building management.

## DEVELOPMENTS

Historically, architect-led design teams have used one-off surveys to gain information on a planned area, allowing them to make rough assumptions and understand (to an extent) how a proposed design would work in practice.

However, such processes are not without weaknesses, and with new data capture and analysis techniques, it's now much easier to pinpoint people movement patterns and to gather evidence on actual behaviours.

Much of the new data has been enabled by the proliferation of mobile phones and ability to monitor movement through the cellular network or feed back location information via app-based engagement or local WiFi or Bluetooth connections. Using these methods not only provides more precise information across a greater range of scenarios, but also allows

More than ever before, there are opportunities for architects to leverage the power of movement data within their designs

architects to draw more robust and reliable conclusions about how people behave, creating a design that more accurately represents the needs of the intended users.

If the right information is issued and interpreted correctly, these insights can drive tangible benefits during the design process, creating an evidence base that improves the likelihood of getting planning approval, and ensuring plans are cost-effective. For example, during the design of London's Olympic Park, analysis of anticipated crowd movement behaviours allowed Movement Strategies to advise on the number and size of bridges connecting different areas of the site (often an expensive element of a design) saving tens of millions of pounds in capital infrastructure costs.

### DEMOGRAPHICS

Another challenge for architects is how to accurately plan a space that may be used in a variety of contexts, or by different groups of people. This could range

from transport hubs experiencing increased pressures during musical or sporting events to individuals using a space differently because of changes in the weather, the time of day or the nature of the event.

During the whole event experience the behaviours of spectators can vary hugely on entering and leaving venues. By using data to look at how these behaviours vary, designers can work out the most appropriate solutions – for example, the numbers of lifts or escalators and where to position them to ensure a safely and timely entry and exit from a stadium or arena.

During our Future Gatelines project, we analysed commuters' behaviour and compared how different people use train stations, particularly in relation to queueing. By looking at video footage at London Victoria Station and Gatwick Airport and comparing this to ticket information, it was possible to recognise trends in how people interacted with ticket gates and the space around them. This, can be used to inform future station designs.

### Pavilion visitors

Movement Strategies worked on the UK Pavilion at Expo 2017 in Astana, Kazakhstan. A study made sure the pavilion handled visitor movement as desired. The firm produced footfall estimates and a test event was held to observe visitor behaviour and ensure it offered the required visitor experience while maximising throughput.



### Controlling football crowds

Olympique Lyonnais FC hosted its first match at the new Stade de Lumières in Lyon, France, in 2016. The club employed movement experts to review stadium access, crowd flow, visitor processes and operational plans prior to the inaugural match. The work included feasibility studies and transport demand forecasts.



By including pedestrian modelling, analysts can look at a range of scenarios with differing volumes of people, which allowed designers to create a coherent plan which accommodated multiple eventualities.

### CONTINUOUS PROCESS

Although architects are primarily concerned with the design of buildings, it is important to remember that developers are keen to commission builds that can be continuously evaluated and adapted depending on changing situational demands. WiFi applications, which can capture occupant or visitor location data with accuracy and frequency, are beginning to be built into new commercial developments, resulting in a greater understanding of how people are choosing to use spaces.

Constant updates and analysis of data allows the process of site management and optimisation to be more fluid, providing operators with the freedom and opportunity to make changes based on emerging behaviour. This is particularly helpful when the numbers of people passing through an area is subject to change – for example, as a result of temporary events.

During the London 2012 Olympics, Movement Strategies staff worked in a number of the venue control rooms, monitoring crowd location data in real-time, including feeds from ticket scanners and mobile phone data.

Simultaneously, other members of the team worked with Transport for London, providing up-to-date intelligence on the performance of the transport network and using all this data, we were able to advise decision-makers on emerging trends, and to highlight potential issues affecting large numbers of spectators, both at venues and as they travelled around London.

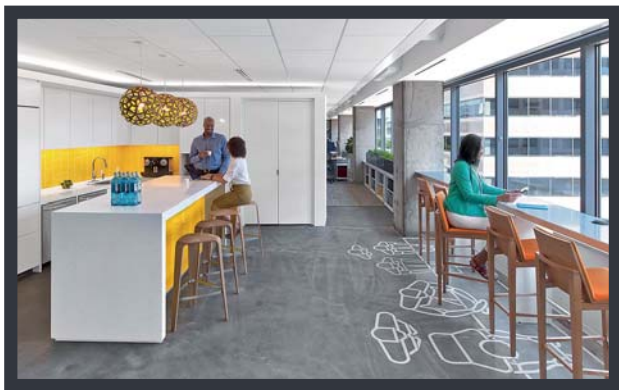
Visitor numbers are still collected regularly at the Queen Elizabeth Olympic Park, forming the basis for the planning of events or commercial actions.

More than ever, there are opportunities for architects to leverage the power of movement data within their designs. From the planning stages through to evaluation, the ability to accurately understand its purpose and provide updates on how it's used is becoming more integral to the ultimate success of a development. □

**About the author** Simon Owen is a director at Movement Strategies, specialising in people movement, crowd planning and transport planning. Owen uses technology to capture and understand people-movement patterns, and how to use this knowledge as the basis for design and management advice. He has worked on large-scale projects, including London 2012, the Wimbledon Championships and the O2 Arena, London.







● The American Society of Interior Designers' headquarters is LEED and WELL certified

## Human sustainability at the forefront of design



● Rick Fedrizzi, CEO, WELL Building Institute

Buildings can not only affect our health, but also our health-related behaviours, says Rick Fedrizzi of the International WELL Building Institute

I often refer to this as “the second wave of sustainability”. Just as the environmental movement is addressing the health of the planet, there seems an obvious next step to address the health of people.

Building on the vast global infrastructure of green buildings and communities, the time has come to sharpen the focus of that work as it relates to the people who use them for habitat, commerce, knowledge and fun.

The statistics can be staggering. For example, spending on public and private healthcare in the UK totals more than 8 per cent of GDP. There are numerous diseases that account for this spend, with heart disease

“

Our buildings and communities not only have a significant impact on our health, but they can also have an impact on our health-related behaviours

”



The Center for Sustainable Landscapes (CSL) was the first institution to achieve WELL Platinum Pilot Certification

and strokes being the top two causes. High levels of air pollution further contribute to concerns. Nearly 40 million people (62 per cent) in the UK are living in areas where air pollution risks damaging their health.

Meanwhile, in the US, healthcare expenditure is equivalent to 17 per cent of GDP, with strokes, heart disease, diabetes and cancer being some of the most common causes of death. Although air quality in the US has been continuously improving, the American Lung Association's annual State of the Air report found that around 125 million Americans – around 40 per cent of the population – “live in counties with unhealthful levels of either ozone or particle pollution”.

## HEALTHY DECISIONS

What is promising is that 70 per cent of these health outcomes are affected by the places where we live, work, play and learn. The features incorporated into leisure, home and office design can directly impact how active we are and even what we eat. Evidence has shown our buildings and communities not only have a significant impact on our health, but they can also have an impact on our health-related behaviours.

The WELL Building Standard (WELL) was launched in an effort to shift the approach from healthcare to health by delivering preventative health intentions into the spaces where we spend 90 per cent of our time. At

## Building standards

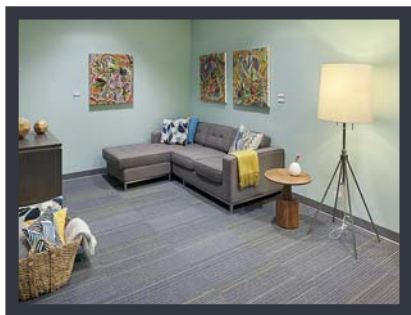
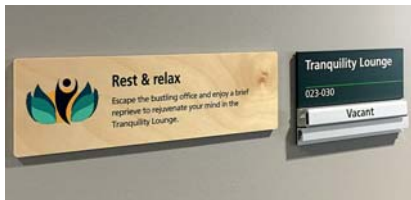
its core, WELL doesn't require behavioural change – at least not at first. For example, we have found that by changing employees' circumstances, healthy decisions become easier and more appealing, while unhealthy decisions are simply less convenient to make. WELL certified spaces are designed to support preventive medical intentions broadly and unobtrusively so, just by coming to work, employees are in environments designed to help support their cardiovascular health, respiratory health, immune health and cognitive health.

### HUMAN-CENTRED DESIGN

The WELL Building Standard serves as a guidebook for how to implement thoughtful design choices like strategic placement of drinking water stations, selection of non-toxic materials and lighting that aligns with the body's circadian rhythms.



● The CSL is located in Pittsburgh, Pennsylvania



● WELL covers seven categories of building performance

Now one of the premier standards for buildings, interior spaces and communities seeking to implement, validate and measure features that support and advance human health and wellness, WELL is advancing the industry in human-centred design.

When we first began the conversation around healthy building, we knew that a huge piece of the puzzle would revolve around awareness, research and education. The unique aspect about the healthy building movement is the diverse driving force behind it. From designers and architects to real-estate professionals and medical experts, we're seeing an immense variety in the expert population that have become ambassadors for public health through healthy building. Everyone has a role to play in advancing our understanding of the impact of better decisions about our buildings.

The extraordinary adoption of healthy building is a strong indication of the value to both tenants and owners. For companies, investing in people and helping to improve their physical and mental health can be an economic approach as well. Around 90 per cent of corporate expenses are tied to salary and benefits, which means the return on investment from healthier and happier employees can lead to cost-savings. So when employers optimise their workplace environments to encourage healthier behaviours, they are indirectly optimising employee productivity and performance.



● CBRE's offices are built to WELL standards

### About the International WELL Building Institute

The International WELL Building Institute (IWBI) is leading the global movement to transform buildings and communities in ways that help people thrive. IWBI delivers the cutting-edge WELL Building Standard, the first to be focused exclusively on the ways that buildings, and everything in them, can improve our comfort, drive better choices, and generally enhance, not compromise, our health and wellness. Its work extends to advancing health through design for entire neighborhoods through the WELL Community Standard Pilot, and convening and mobilizing the wellness community through management of the WELL AP credential.

In the corporate sector, addressing occupant health can help to reduce the largest line item in the 30-year costs of a building – the personnel – and therefore offers a meaningful return on investment. The benefits that come with healthier, more productive employees far outweigh the one-time costs. Fortune 500 companies invest significant dollars into wellbeing programmes every year. Hard costs for WELL Certification, which delivers immediate and measureable benefits for every employee by improving the baseline from where they start on their personal wellness journeys, have been as low as \$0.99 per employee per day.

### INVESTMENT POTENTIAL

As financial groups move to include health and wellness in their portfolio evaluation criteria, healthy building features increase the value of the building based on greater input potential. Increased awareness of the



SCENEO's office building in Bezons, France, was awarded WELL certification

impacts of buildings on our health motivates people to demand healthier features in their homes, offices and places they spend their leisure time. The return on investment from healthy building drives its adoption.

We're excited about the opportunity to support the global real-estate industry in its embrace of healthier people through better buildings. While the economics are obvious, we can't lose sight of the fact that the outcomes are measured in terms of improving the health and wellness of our families, friends, neighbours and colleagues. The return on these impacts is priceless. □

**About the author** Rick Fedrizzi is CEO and chair of the International WELL Building Institute, tasked with overseeing the global expansion of the WELL Building Standard. He has been working with LEED, BREEAM, Green Star and the Living Building Challenge to remove the need for duplication in the ratings processes. Fedrizzi is former CEO of the US Green Building Council.

# spa shake-up

Visit a city hotel spa and you'll probably be disappointed, says spa design expert Adria Lake. Here she explains why hotels who are willing to challenge a tired and formulaic typology can prepare to reap rewards

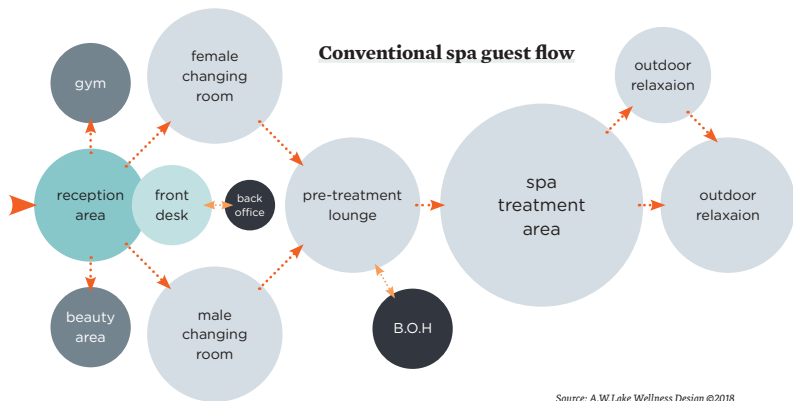
**T**he urban hotel spa design is ripe for a disruption. The existing model is outdated and no longer serves the hotel nor its guests.

Spas in urban hotels are suffering from a "familiarity" disease. The guest capture rate has continued to decline as the novelty has worn off and nowadays most urban hotel spas find it challenging to compete with independent day spas offering better access and lower prices for similar products and services just outside their doors.

Urban hotel spas now share the fate of gyms and pools of having become amenities rather than profit centres. In the past five years, I have seen many hotel brands scrambling to evolve their spa design standards to improve performance and stay relevant. But, these design standards still adhere to the same stale template. Almost all other hotel facilities (rooms, restaurants, lobby) have gone through gamechanging transformations, but the spa, gym and pool face a status quo bias – the preference of using the status quo as a reference point, as

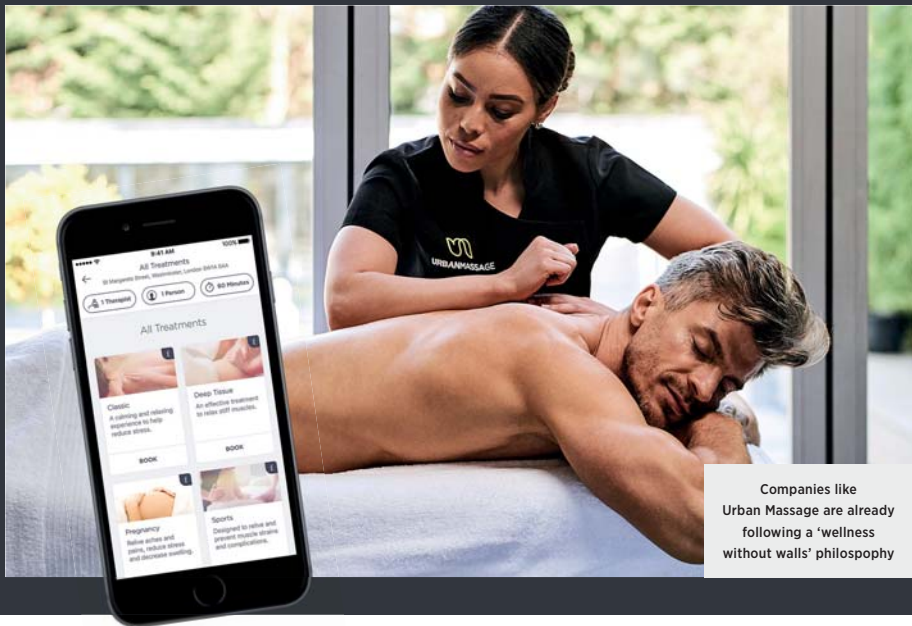
any change from that baseline is perceived as too big of a risk. In reality, keeping the status quo is the biggest risk of all.

So, what will it take to disrupt urban hotel spa design? First, let's be clear. Disruptors are not fixers. They don't improve, fine tune, or modify. To disrupt something is to render what existed before obsolete. Disruptors reimagine how things ought to work by breaking moulds, tossing out the rule book, thinking the unthinkable, and bringing about a whole new way of doing, living, being. Still interested? Read on.



Source: A.W.Lake Wellness Design ©2018





Companies like Urban Massage are already following a 'wellness without walls' philosophy

### 'Wellness without walls'

Shrink the spa's footprint, increase its utility and expand the spa experience. Who says that a spa must be confined within four walls? What would a spa with no walls look like? What if instead of "going to the spa", we invite guests to discover "well" experiences in unexpected places?

All spa designs are currently guided by a familiar guest flow – a sequence of services and facilities expertly formulated by spa consultants and wellness experts to enhance the guest experience.

A typical spa guest flow (see diagram: Conventional spa guest flow on p. 164) generates the same floorplans and templates that have been around for decades, repeated so many times you'd be able to navigate most spas blindfolded.

The template also treats guests as passive participants of a process (so-called journeys or rituals), not individuals with different

Imagine a disruptive design that ignores the rules, intrigues and invites guests to give it a go

needs and preferences capable of creating their own dynamic wellness experience.

The current thinking goes that a standardised sequence of services delivers a consistent and enjoyable guest experience. Unfortunately, this uninspiring and outdated approach serves a tiny portion of the hotel guests and disregards the rest.

Imagine, instead, a disruptive design that ignores the rules, intrigues and invites guests to give it a go. Visualise spaces designed to be intuitively useful and relevant

to most, not just a few, hotel guests. In place of a spa menu, think of unlikely encounters, brief but magical moments of discovery, off-the-cuff but unforgettable experiences.

A disruptive "wellness without walls" design consists of unexpected spaces dispersed throughout the hotel where guests are encouraged to share experiences with friends, strike conversations with complete strangers, learn a new meditation technique from a fellow traveller, arrange a morning run with a local marathoner, or catch up on work while getting a quick pedicure and a shot of turmeric ginger vodka.

Will you lose your faithful spa clients who expect to be coddled and pampered? Not necessarily, but even if you do, this roughly 3 per cent (the average guest capture rates in urban hotel spas) segment of the market is well catered to already. Wouldn't you rather have a shot at the ignored 97 per cent? The decision is a no-brainer for disruptors.

Urban hotel spas haven't quite figured out how to have fun and join the social scene

Let's now consider a more detailed description of four different types of spaces (see diagram: Conventional vs disruptive models on p. 166) that make up the disruptive "wellness without walls" design:

### 1 Social spaces

Fun, engaging, brightly lit, open spaces that allow guests to meet, mingle or just be a part of the scene. Social spaces are currently the domain of the food and drink sector, like restaurants, cafés and bars. Although many urban hotels have also transformed their lobbies into trendy social gathering

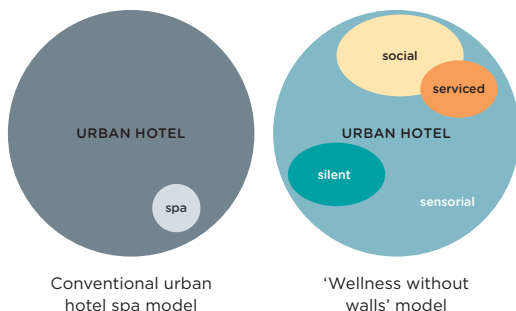
places by blurring the lines between function (checking in and out) and fun (meeting, entertaining, dining, drinking), urban hotel spas haven't quite figured out how to have fun and join the social scene.

Most hotel spas are sombre, isolated and dimly lit. We forget we are social creatures

who crave interaction and companionship, especially in new, unfamiliar places.

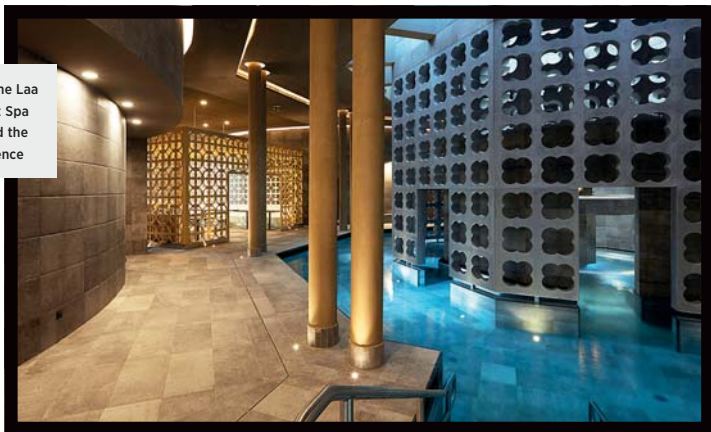
Social interactions, making friends, learning by doing, or being part of it are as therapeutic, sustaining and gratifying as the best therapies – often more so as they are fun, surprising and spontaneous rather than

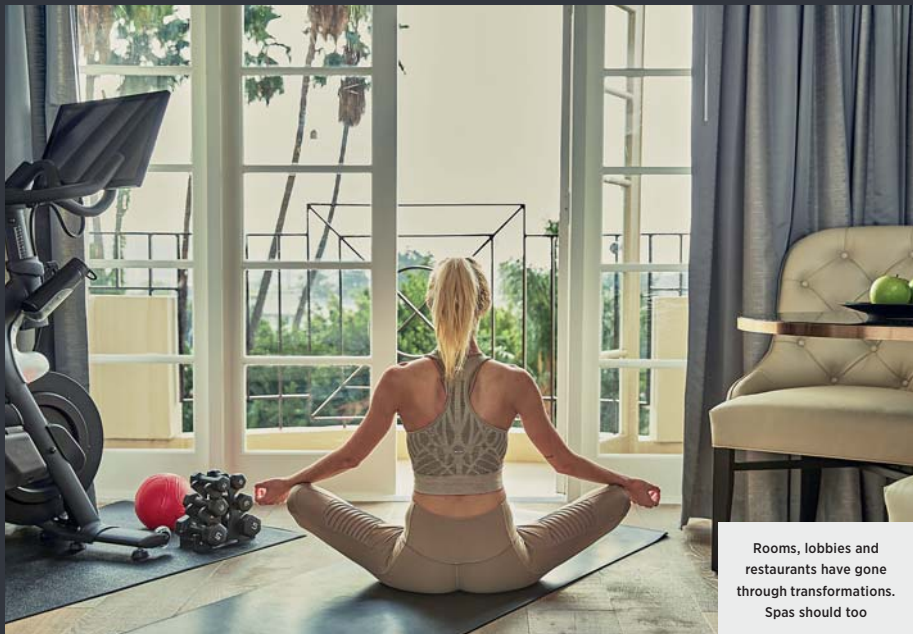
## Conventional vs disruptive models



Source: A.W.Lake Wellness Design ©2018

Austria's Therme Laa Hotel & Silent Spa has embraced the power of silence





Rooms, lobbies and  
restaurants have gone  
through transformations.  
Spas should too

staged. A disruptive brand embraces the unpredictability and randomness of it all.

## 2 Silent spaces

Yes, silence still has a place in our “wellness without walls” design. But not necessarily in places that you’d expect. In fact, we appreciate silence even more when we find it in the most unexpected places.

## 3 Sensorial spaces

Read any spa menu, and you’d think that spas have a monopoly on sensorial experiences. In reality, your spa sensorial experience usually entails choosing your massage oil, walking through candle-scented corridors and experiencing the soothing touch of your therapist’s hands while listening to softly piped-in music.

Our sensory nervous system is capable of so much more. Sensorial spaces not only awaken our senses, but spark creativity, calm the nervous system, heighten neurological functions, support and strengthen other biological systems and provide therapeutic effects.

## 4 Serviced spaces

Compact, multi-functional spaces designed to maximise guest offerings and experience optimise the hotel’s space utilisation and revenue while minimising operational costs and maintenance. While the previous three types of spaces provide guests with dynamic, spontaneous, DIY experiences, serviced spaces offer personalised experiences delivered by highly qualified, consumer vetted local experts and providers.

Serviced spaces are designed to reduce or do away with the high operational costs of servicing and maintaining treatment rooms, gyms, and other spa facilities which currently require full time staff to operate.

## VIRTUAL COMMUNITIES

It’s time to activate your under-used spa facilities by joining the virtual community and digital economy. But what should you do with a functional and operational but unprofitable urban hotel spa? Many hotel operators justify non-performing spas by playing the “service trumps profitability” card. Nonsense. If a facility is not profitable, then there must not be adequate demand to justify its existence.

Guests are also drawn to successful establishments. That is why a great

## Disruption

restaurant has a long line of customers, while the not-so-great restaurant is empty.

An under-used spa is a disservice to both hotel and guests. So, rather than shifting its operating costs to a third-party operator, get rid of it or join the digital economy.

How? Add a roster of highly qualified, certified local therapists, beauticians, stylists, personal trainers, life coaches, nutritionists and well-reputed masters to your hotel app and allow them to use your spa facilities to conduct their services and pay per use by sharing their revenue with you. Now, instead of a spa menu that reads like a thousand others, your guests will have access to the services of local experts, the chance to meet extraordinary individuals you can't afford to have on your payroll and "one-off" experiences that cannot be staged or choreographed.

Could the urban hotel spa be replaced by an app that gives access to pay-as-you-go services?

Hotels are extremely protective of their brand standards, access to their facilities, and their guests – a mindset that is outdated if not obsolete. We forget customers have access to just about anything they want via their phones, and your guests' personal data is available and traded in the open market.

I imagine that in the near future the urban hotel spa could be replaced by an app

that gives guests access to unlimited, pay-as-you-go services. Unthinkable? Exactly.

### SPACES TO RETHINK

**Locker rooms:** If there was ever a relic of the past, locker rooms take the prize. In the age of personalised spaces and experiences, why do we still tolerate communal showers, toilet stalls and impersonal changing and grooming spaces? Locker rooms take up a lot of real estate, require constant monitoring and offer no added value to the guest.

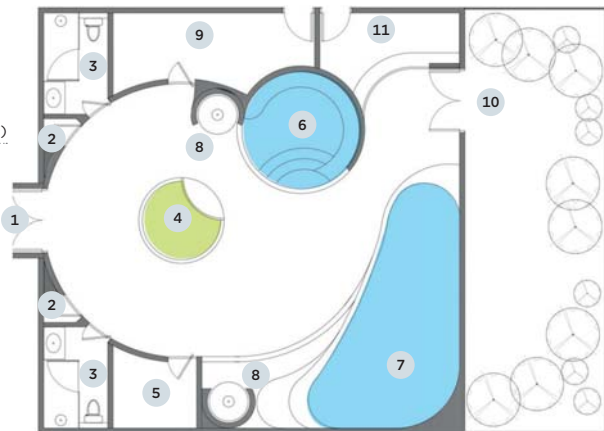
Many hotels attempt to enhance the dreadful locker room experience by featuring hydro-thermal facilities that increase cost and require maintenance but bring no additional revenue to the hotels. Worse, most guests skip the small, dark,

### Disruptive gym and pool layout

- 1 Main entrance
- 2 Storage / janitor closet
- 3 Personal grooming pods (5m<sup>2</sup>)
- 4 Sauna (4.5m<sup>2</sup>)
- 5 Steam room (4.8m<sup>2</sup>)
- 6 Therapeutic bath (10m<sup>2</sup>)
- 7 Hydro-circuit (26m<sup>2</sup>)
- 8 Rinsing showers
- 9 Multi-use studio (11m<sup>2</sup>)
- 10 Access to biophilic space
- 11 Healthy shot bar

**Total area 136m<sup>2</sup>**

Note: Plant room for hydro/thermal facilities are not shown in the illustrative diagram



Source: A.W.Lake Wellness Design ©2018



and hygienically questionable steam/sauna and whirlpools inside locker rooms and head to the bar or back to their room rather than sit alone in a barely warm steam room inside an uninspiring locker room.

How to design a disruptive locker room? Replace them with first-class lounge style unisex personal grooming pods where guests have complete privacy and can always count on fresh and sparkling clean facilities. Two compact pods (requiring less than 20sqm of space) are more than sufficient for a 200-room hotel as most guests prefer to shower in their rooms.

**Relaxation areas:** Since when is a forced or programmed downtime relaxing? Yet most spa designs call for extensive relaxation areas. And lately, they have become even larger, as hotel brands equate “relaxation” – the number

If there was ever a relic of the past, locker rooms take the prize. But how do we design a disruptive locker room?

one reason most often cited for going to spas – with a demand for bigger relaxation areas. I would wager that guests prefer treatments or therapies that relax them, and would be happy to head back to their rooms for a good nap or sleep.

Another reason that’s often cited when attempting to justify the size and waste of relaxation areas is the proverbial

“extending the guest experience”. The disruptive “wellness without walls” design expands the guest experience outside the spa walls and offers social, sensorial and silent spaces to increase and improve each and every one of your guest’s wellbeing, rather than allocating prime real-estate to extend a very small portion of your hotel guests’ spa experience.

**Treatment rooms:** There is really no justifiable reason for designing spa treatment rooms that are larger, more luxurious and better equipped than the guest rooms themselves for one simple reason: only a small fraction of your hotel guests use the spa, but every single one of them has paid to use their room. Invest in your guest rooms and design and equip them to optimise and support the wellbeing of 100 per cent of your guests.



## Disruption

Spa treatment rooms should be designed to optimise the delivery of each treatment. Just as a well-designed kitchen allow a chef and his crew to produce the best possible meal for the restaurant guests, a spa treatment room design should focus on the needs and requirements of the therapist or service provider. Only then can a guest feel cared for and get the most out of their treatment.

**Gym and pool:** Along with the locker rooms, conventional gyms and pools are the triumvirate of hospitality white elephants – they have become useless, troublesome, expensive to maintain and impossible to get rid of. Rather than competing against independent gyms with their huge facilities and choice of equipment, hundreds of classes, programmes and trainers, or designing a hotel gym for just a few hard-core

In our disruptive design, silence, sleep and solitude belong mostly in the guest rooms, rather than in the spa

gym-goers (the converted), urban hotels would do well to re-design the gym and pool as a mixed-use “wellness without walls” facility (see diagram: Disruptive gym and pool layout on p. 168).

### SILENCE, SLEEP, SOLITUDE

In our “wellness without walls” design, silence, sleep and solitude belong mostly in the guest rooms, rather than in the spa.

To begin with, each guest should be able to take it for granted that their room will provide adequate sound proofing, a good night’s rest and complete privacy. A “wellness without walls” designed guest room offers a great deal more. I won’t go into the details of a disruptive guest room design as it deserves its own article, but we have the technology to design hotel guest rooms that will provide a personalised environment to support and optimise each guest’s overall wellbeing and performance.

If given access, for example, a “wellness without walls” hotel room will be able to gather and sync information from a guest’s sleep tracker, activity and health monitor, daily calendar, travel apps, and other personal devices to automatically (but always with consent) set the room’s noise level (including sound and entertainment systems), temperature, lighting, sleep alarm or call in breakfast. Guests would

Leading Accor hotels are equipped with sleep-improving tech, like Droom headbands





Resorts like Six Senses have unexpected “well spaces” that can inspire urban hotel spas

potentially also be able to order and schedule appointments with trainers or experts in the area to ensure that they get not only the right amount of sleep, but when to sleep, exercise, eat, get medical or physical or psychological assessments from qualified professionals – all without ever leaving their room.

Like happiness, a sense of wellbeing is difficult, if not impossible, to measure or formulate. Yet, we design spas as if we own a patent on the formula. This is the reason, I would argue, that most hotel guests do not use the spa. They find comfort and wellbeing in places, spaces and experiences outside the conventional spa.

However, a disruptive “wellness without walls” design requires a very small if any spa footprint at all. Instead, unexpected “well spaces” are integrated throughout the hotel, offering easily

accessible, intuitive, useful services and addictive experiences that appeal to the hotel’s key target markets, not just the typical or seasoned spa-goer.

Converting the unconverted and appealing to a much larger market by creating a product and service that becomes indispensable and addictive, that is the main goal of the disruptive “wellness without walls” design.

Disruptors understand that the world is rapidly and irreversibly changing. They identify needs not yet expressed and create products and services no one asked for. Disruptors are forces of nature, infinitely adaptable and unstoppable. Non-disruptors, on the other hand, are instinctively protective and incurable fixers. They tweak, fine-tune and adjust until one day they are sidelined, replaced and rendered obsolete.

Do you have what it takes to disrupt? □

**About the author** Adria Lake is the founder of wellness and spa design company AW Lake Design. She has a background in hospitality having spent eight years overseeing the family portfolio of Asian hotel and real estate. Lake founded her spa concept and design firm in 1999 and it now has offices in Indonesia, Singapore, Hong Kong, China, the UK, the US and Dubai.

# The Value of Research

Sometimes we get too used to the work we do and take the creative process for granted. Sociocultural anthropologist and immersive spaces expert Scott A Lukas urges designers to get out and explore themed environments with an analytical eye

When you hear the word 'research', excitement is not the first thing that comes to mind. Research, whether that taking place in a laboratory or that represented by an anonymous survey, is often labelled as something staid, mundane, boring.

I'd like to suggest quite the opposite and write of the true creativity – and excitement – that is a part of all research in which we engage. More importantly, I wish to suggest the real value that research represents for those who design, operate or study experiential spaces of theming and immersion.

In 2009, I had the opportunity to conduct a short research trip to Europa Park in Rust, Germany. Europa Park had long been on my list of exciting European theme parks, and I was happy to not only visit the park, but secure a short interview with one of the park's architects who had designed the new Iceland-themed land. Over a coffee, we spoke about our mutual theme park experiences and discussed the complex processes of creating themelands from the ground up.

My informal interview was very insightful and I was able to see firsthand how architects and designers think about creating an exciting and immersive themeland



for guests. But when I told the architect that I was a cultural anthropologist, he seemed surprised. When I asked him why, he said: "Well, the last time that cultural anthropologists came to our park, they said we were engaged in fakery. It was pretty condescending."

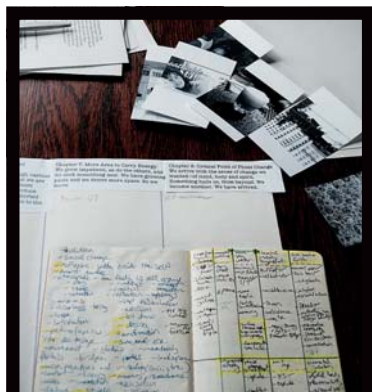
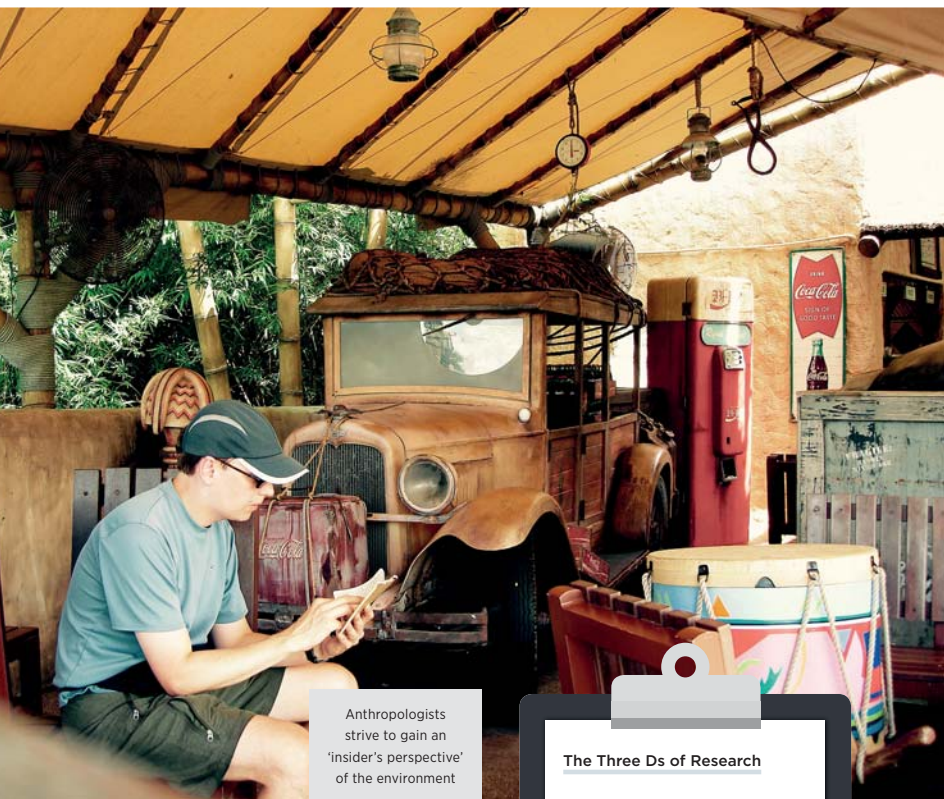
I wasn't surprised to hear his words. Unfortunately, many of the people who study theme parks, at least academically, fail to understand the complexities that go into their design and the pleasures they provide for guests. Instead, they apply misguided preconceptions that result in missing out on the nuances and complexities of these and many other such spaces.

## WHAT IS RESEARCH?

The etymology or meaning of research suggests that it is an act of seeking out, searching closely, traversing. In short, it's an attempt to understand what's happening, why it happened, or what might happen in the future.

Research, whether a quantitative type that involves numbers and statistical analysis or a qualitative type that is focused on detail, nuance and the subjective aspects of life and is often expressed in words or an interview, is aimed at getting more information to answer a question that you might have. How could we design a new dark ride that truly engages as many





### The Three Ds of Research

- ✓ **DETERMINE** the nature of your research, your goals and the methods you wish to employ
- ✓ **DOCUMENT** or focus on how you will capture or collect your research, whether it be through fieldnotes, video, photography or other means
- ✓ **DETAIL** your findings so that others may appreciate what you have discovered





Lukas found the Starbucks Reserve Roastery felt like a luxury offer

## Fieldnote

### Visit to Starbucks Roastery

Today, in June 2017, I am visiting the Starbucks Reserve Roastery in Seattle, Washington. This site has long been on my list of exciting immersive spaces. Due to practical reasons, I am limited to two hours. I need to focus on maximising my time in the space. My two goals are to observe and understand the roastery and to document it – photos, video and audio recordings – for my YouTube channel.

I found that it was useful to separate these two goals. I began with informal interviews with the greeters and employees. They were quite friendly and more than happy to explain the space's concept to me and to also detail the new Starbucks Reserve brand. This was very useful as I hadn't been aware of this new upscale version of the Starbucks brand.

With this information in hand, I continued through the space and began to write major topics in my fieldnotes – "luxury brand," "the retail looks like a museum store,"

Coffee craft and rare coffee are the focus of the Starbucks Reserve in Seattle, Washington



"amazing color and wood tones." I knew that I could come back to these topics later and fill them in with more detailed writing on my laptop. I began the task of documenting the space, first through photos, a second time with my GoPro and audio recorder (for my video channel), and

a third with my Blackmagic Pocket Cinema Camera, which creates a more cinematic look in my videos. Following this work, I realise that I have many hours in front of me to reflect and expand on my fieldnotes, research more about the roastery on the Internet and organise and create my research videos. All in a day's work!



## Fieldnote

### Visit to IKEA store

For some time, I have been fascinated with IKEA. IKEA is synonymous with low-cost, fun and attractive furniture and home décor. I recall a sign at an IKEA in Sacramento, California, that spoke of “democratic design” and it reminded me of the fact that the Swedish/Dutch design company has been very successful in connecting with the desires of the guest.

While I have visited many IKEA stores, on one occasion in 2017 I visited the IKEA near the Portland, Oregon airport. I was in the city for a few days of immersive research and I decided to take advantage of a short layover at the airport. Because I was limited by time, I was forced to take a very practical – if not somewhat superficial – approach to my research.

While enjoying some Swedish meatballs inside the store, I created a working list of themes and issues to focus on. Having these themes or topics in mind, I knew that I could seek out some experiences within the store

Lukas made a plan of the theme and topics he wanted to study during a trip to IKEA

and then write more detailed notes about my observations as well as collect some video recordings of those experiences.

In addition, I wrote a list of more specific issues in the middle of the entry.

These amounted to reminders of larger

issues or topics that I wanted to focus on during the research, perhaps even extending them beyond this one research visit. My time in the store was brief, but due to some on-site organising of my notebook and the use of video I was able to begin some preliminary research.

We should never forget that research is a process.



of the guest's senses as possible? Why don't guests like our classic wooden rollercoaster? What do we have to do to stay competitive in our market? These are a few of the things one might ask in regards to a themed or immersive space – and research provides an opportunity to get to the bottom of such questions.

It's important to realise that every aspect of a themed or immersive space – from design to operation or marketing – may be connected to a relevant research question and an appropriate research method.

## HOW TO RESEARCH

It's impossible to describe all the possible forms of research you could conduct.

The main methods include interviews, surveys, participant observation and background and archival work. Then there are social media studies, audiovisual interactions, experimental and active research and a number of styles of collaborative approach (such as charrettes), among others.

### When doing your research ...

- \*Draw a map of the space
- \*List any actions, events and happenings you observe
- \*Note down your general observations of the environment
- \*Did you spot any overarching themes?
- \*Diagrams can illustrate activities or events
- \*Remember to take pictures, videos, audio recordings
- \*Collect any materials (brochures, maps, literature)

As a cultural anthropologist, I tend to focus on ethnography, which is a form of intense 'listening in on', sometimes participating in, the site that I'm studying. I once worked as a Six Flags AstroWorld employee trainer, so my understandings of the day-to-day operations of theme parks provide me the opportunity to know, ahead of time, what to look for.

Anthropologists often strive to experience the 'insider's perspective' of a culture and this fact matches quite nicely with my training experiences, especially my understandings of the major goal of theme parks in terms of focusing on the needs of the guest. The benefit of such research is that you get to immerse yourself in the very spaces that you are designing, operating or studying. The downside is that you may not always have the ability to study what you wish to study.

We should not forget that research often relates to access – what you can see, interpret and relate – later – to others who were not in the field with you.

### Informal research is of particular value

Whatever forms of research you engage in, you might find that research involves four main elements:

- **Looking**, in which you try to see the space or look at the issue with an open mind.
- **Understanding**, in which you begin to make sense of what you're seeing and experiencing.
- **Analysing and rearranging**, in which you begin to direct the research, modify your findings and focus on some interpretations of the research.
- **Presenting**, in which you offer your research data or information to the public, your board, a marketing committee or the general public. You might think about how you will present your data or findings, such as through charts, reports, videos and so on.

### INFORMAL RESEARCH

We should never assume that research is something that only takes place inside the dusty archives of prestigious universities. In fact, research that is informal is of particular value.

A good portion of the research I conduct is informal, meaning I often show up at the space of study with only my cameras, notebook and pencil. One of the reasons for this is practicality – I often have less time than I would like. On one such occasion, while visiting the most immersive airport in the world, Changi Airport in Singapore, I was forced to visit as many of the amazing spaces as possible in the airport in under an hour. The reason? I had a short layover before my flight: research is often about limitations and setting priorities.

If you want to be prepared for taking fieldnotes, it's a good idea to create an on-site analytic that allows you to quickly, efficiently and accurately document

#### Helpful tips

As we consider the ways that we may employ research to our advantage, we can focus on this advice

- View research as a dialogue between the people, spaces and ideas in your sites of study
- Approach your research with an open mind
- Document more, rather than less, detail...just in case you need it later. As an example, my Flickr site of Themed and Immersive Space Images has over 44,000 images, and while it may seem excessive, I never know when I might need one of these images
- As much as is possible, share and collaborate your findings such that more communities of researchers may be created
- Consider the best ways to apply your findings, such that your research results in practical or applied outcomes

the things that you're studying at your research site. This is a shorthand that allows you to meet your research goals and even compare the site of study with others. An analytic or rubric that I often employ is that I create a chart in my field notebook that lists the key qualities of the site that I'm studying: spatial features, demographic observations, mood and the senses that are experienced in the space are just some examples of what I'd be looking for. In this way, I'm able to document quickly what I'm observing. This is especially useful while conducting informal research.

With any form of research in immersive spaces, there's no guarantee you'll see everything, but with an open mind and a thick notebook, you might be surprised at the inspirations you'll discover. So, get out there and have a look! □

**About the author** Scott A Lukas is a cultural anthropologist, and author who has taught research methods at the graduate level. Lukas has written a number of books on themed design, including *The Immersive Worlds Handbook: Designing Theme Parks and Consumer Spaces* and *A Reader In Themed and Immersive Spaces*. He is currently working on a new project about the anthropology of popular culture.





The opportunity to carry out research in an immersive environment can arise at any time – Lukas found much to study during a layover at Changi Airport, Singapore



**CLADbook** 2018

CLADkit  
products



# CLADkit

IMAGE: STUDIO PEMPRIERY



• WOHA founders Richard Hassell and Wong Mun Summ

## WOHA creates luxury lifestyle collection

Architecture and design firm WOHA has launched WOHAbeing, a lifestyle line of furniture, rugs, lighting, bath and tableware.

It consists of six collections: Bintan, Ulu, Corak, Oli, Diaspora and Sampan.

Bintan is a furniture collection consisting of tables, chairs and lighting. Inspired by the Indonesian island of the same name, it features tropical, hand-printed upholstery and is available with either slender metal bases or chunkier wooden legs.

Ulu features both indoor and outdoor furniture, originally designed for the Alila Villas Uluwatu resort in

Bali; Corak is a collection of rugs incorporating traditional Asian patterns and textures; and Diaspora is a range of bone china tableware designed with ceramic manufacturer luzerna.

Sampan is a bathroom range that mimics the angular shape of traditional boats found in Singapore.

WOHA co-founder Richard Hassell says: "We have created objects for our architectural projects for a very long time but never made them available for a retail market before."

**MORE ON CLAD-KIT:**  
**WOHA**



• Oli is a range of glassware and lighting created with WonderGlass

**WOHAbeing is the result of over 20 years of designing buildings and, as a natural extension of that, furniture and other home accessories**  
Richard Hassell



• The Bintan collection is inspired by an Indonesian island

## Dornbracht's LifeSpa launches



Water applications can enhance a health-conscious lifestyle in a variety of ways

Andreas Dornbracht, Dornbracht

Dornbracht has launched an innovative new water treatment concept for at home and professional use.

The LifeSpa concept is a modular system designed to integrate adaptable 'health-enhancing' water applications into bathrooms.

Applications include the Aquapressure vertical shower and the WaterFan and WaterCurve jets.

Inspired by acupressure, Aquapressure features multiple outlet points and different flow modes. It is designed to deliver a variety of treatments, including water massage and contrast showers.

The WaterFan and WaterCurve are height-adjustable massage jets that provide targeted massage.

Andreas Dornbracht, managing director of Dornbracht, says: "Water

applications can enhance a health-conscious lifestyle in a variety of ways – not just with regard to physical fitness, but also as far as mental performance and life energy are concerned."

**MORE ON CLAD-KIT:**

**DORNBRACHT**



• The LifeSpa concept is a modular system for professional and home use

## Moss Trend's living walls complement spas and restaurants, says Francesco Meaolo

With a long history in creating decorative materials for interior designers and stage scenography, Italian firm Moss Trend has now ventured into public spaces, including restaurants and spas.

The family-run business creates preserved green walls designed to be maintenance-free, with vertical gardens created with moss that lives on the humidity naturally present in the air.

The company recently finished a project at the Erato Wellness Luxury Spa in Artimino, Italy, using Jungle Moss to create a living wall made of preserved plants that complements the existing décor. Customers choose between several types of plants, from reindeer moss to preserved leaves and lichen.

They bring texture, energy and that final touch of design to the interior

Francesco Meaolo, Moss Trend



"Installation of moss panels is simple," says Francesco Meaolo, managing director of Moss Trend. "A natural preservation process gives the plants durability. As they don't require light and absorb moisture from the air, spas are convenient spaces for them."

**MORE ON CLAD-KIT:**

**MOSS TREND**

• The moss panels don't require direct sunlight, watering or feeding

## Dutch design firm Van De Sant's sustainable furniture



- The Amsterdam collection is available in a variety of colours

Dutch furniture design company Van De Sant has launched its environmentally friendly outdoor furniture into the hospitality and spa markets.

The company, which is based on the Dutch-Caribbean island of Curacao, uses recycled materials, including plastic waste reclaimed from the ocean, to create sturdy furniture frames. These frames are then covered with foam and upholstered in weather-resistant fabrics to create a range of furniture that is both functional and stylish.

The range consists of chairs, sofas, tables and recliners suitable for both indoor and outdoor use in spas, in nine mini-collections: Maine, Madesimo, Wales, Toronto, Turrialba, Johannesburg, Amsterdam,



**Our furniture is designed to reduce plastic waste. We've proven that a sustainable vision can lead to design and comfort**

Robert Milder, Van De Sant

Munich and Oslo, each inspired by the places they were named for.

Van De Sant founder Robert Milder says: "Our furniture is designed to prevent deforestation and reduce plastic waste. A sustainable vision can lead to design and comfort."

**MORE ON CLAD-KIT:**

Keyword: Van De Sant

## AL\_A designs stackable football pitches to revive fading communities

Amanda Levete's architecture studio AL\_A has created a unique concept to bring stackable five-a-side football pitches to derelict sites in London.

The project, called Pitch/Pitch, is designed to bring communities together through sport. Each three-storey carbon fibre structure is conceived as a temporary installation that is fast and easy to erect, meaning the pitches could be built to coincide with major football tournaments or to quickly bring life back to fading communities.

Developed in collaboration with Arup, each system is modular and can be stored in shipping containers to be transported to another venue once it has been dismantled. Platforms for spectators are incorporated into the



- The three-storey pitches are built from carbon fibre

design, and extra facilities such as changing rooms can be prefabricated and delivered to a site on demand.

AL\_A director Maximiliano Arrocet says: "As an office we enjoy sport, and we've always viewed it as a way of creating social cohesion."

**MORE ON CLAD-KIT:**

AL\_A



- Maximiliano Arrocet, AL\_A



- Siminetti's mother-of-pearl mosaics are made from sustainable freshwater pearl and sealed with resin

## Siminetti unveils sustainable mother-of-pearl collection

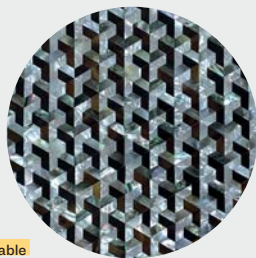
UK-based luxury tile company Siminetti has created a line of decorative mosaic panels. The mother-of-pearl mosaics are made from sustainable freshwater pearl.

The tiles are sealed with resin, making them exceptionally strong and suitable for both indoor and outdoor use, as well as wet or dry areas, as either wall or floor surfaces. They are available in a range of different colours and styles.

The company partnered with W Hotel and Residences on The Palm Jumeirah in Dubai. W is host to the Alef Residences, a lavish lifestyle destination that will be serviced by the luxury hotel. Siminetti has supplied 500sqm of its anthracite mother-of-pearl

**We feel the designs truly reflect the luxury and beauty achievable with mother of pearl**

Simon Powell, Siminetti



mosaic tiles, which have been featured throughout the property.

Simon Powell, director of Siminetti, says: "The new decorative panels are a development we have been working on for some time, as we look to find new ways to show off the natural beauty of our mother of pearl."

**MORE ON CLAD-KIT:**

Keyword: **Siminetti**



## Ma Yansong on 'out of this world' furniture collection

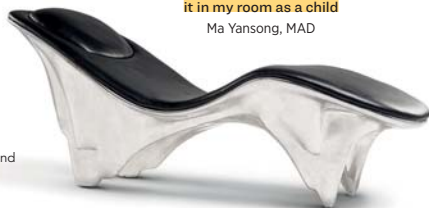
Curation-led design company Gallery ALL has launched the MAD Martian Collection.

The collection, which launched at Design Miami in December, was designed by Ma Yansong, founder and principal partner of MAD Architects. It features seven distinct pieces and was inspired by the prospect of life on Mars. The collection consists of a dining table, a console table, a chaise longue, floor-to-ceiling lights and a candlestick.



**I want to bring the Earth landscape to Mars, as I imagined it in my room as a child**

Ma Yansong, MAD



The pieces feature contoured forms that are designed to resemble natural elements from an extraterrestrial environment, and are finished in a reflective metallic skin.

The collection forms part of an ongoing series of in-house commissions by Gallery ALL.

**MORE ON CLAD-KIT:**

Keyword: **MAD Architects**

- The pieces are finished in a reflective metallic skin

## Designworks Tiles releases Zen collection



**Our Zen collection is made of recycled glass, making it a beautiful and sustainable choice**

David Foster, Designworks

Designworks Tiles has designed a range of professional use porcelain tiles for spas and swimming pools. The Zen collection is a series of mosaic tiles that takes inspiration from natural stone, marble and wood.

The tiles are available in a range of 'tranquil' colours designed to evoke a feeling of relaxation.

The range is made up of over 20 designs including Phyllite, a dark grey tile featuring subtle veining to look like marble, Pale Cherry, a grained, light brown tile designed to look like wood, and Bluestone, a stone-like cobalt blue tile.



The tiles have a matte finish and are compatible with Designwork's JointPoint technology, an advanced system where silicone points are used to join individual mosaics together to form a single panel.

• The Zen collection takes inspiration from natural stone, marble and wood

**MORE ON CLAD-KIT:**

Keyword: **Designworks**

## Dramatic wooden roof dominates Hurlingham Club racquet centre



**The roof was largely built off-site, which meant those involved had to work very closely without any issues on site**

Frank Werling, Metsä Wood

One of London's most exclusive sports and social clubs has opened a new racquet hall, featuring a dramatic curving green sedum roof.

The Hurlingham Club in Fulham commissioned David Morley Architects to create the sporting facility for its guests – who in the past have included men's tennis world number one Andy Murray.

The roof measures 35 metres long and 55 metres wide and is made from curved steel beams and Kerto Laminated Veneer Lumber (LVL) panels provided by Metsä Wood.

The design team selected LVL panels as they are very thin, but strong, and would be able to support the landscaped top layer of the roof, without adding any bulk to the structure.



• David Morley Architects were commissioned to create the facility



**CLAD-KIT KEYWORD**

**Metsä Wood**



## Carlo Ratti reveals digital shading canopy for climate control and beautiful shadowing

International design and innovation office Carlo Ratti Associati, in collaboration with Dubai's Museum of the Future, has developed a digitally-operated reflecting canopy to provide shading, climate adaptation and green energy generation in cities.

The canopy uses an array of mirrors that automatically track the sun. Each mirror moves on a double axis to reflect the sun's rays away from the ground – allowing the control of the level of shading and natural cooling underneath. Reflected rays are then



concentrated on a photovoltaic receiver that generates electric power.

"In developing Sun&Shade we were inspired by the Middle Eastern tradition of shadowing in architecture and public space allowing shadowing to be digitally controlled," says Carlo Ratti, founder of Carlo Ratti Associati.

Ratti said the technology has the potential to significantly boost clean energy production.



**Sun&Shade was inspired by the Middle Eastern tradition of shadowing in architecture and public space**

Carlo Ratti, Carlo Ratti Associati

### CLAD-KIT KEYWORD

Carlo Ratti Associati

## Matteo Thun Atelier creates hospitality collection inspired by Capri



- Matteo Thun Atelier, working with Italian manufacturer Very Wood, has devised a fuss-free furniture range

The studio of Italian architect and designer Matteo Thun has produced a new range of wooden furniture designed for everything from hotels to private suites, wellness centres, bars, restaurants and lounge areas.

The collection, called Capri, is inspired in part by the design philosophy founded on the island of the same, on the south side of the Gulf of Naples.

Here, in the 1960s, fabric designers such as Livio De Simone brought to life intuitive and simple pieces of furniture by using vivid and evocative materials.

Matteo Thun Atelier, working with Italian manufacturer Very Wood, has devised similarly fuss-free products, including a lounge armchair, dining chair, stool, coffee table, sunbed and sofas.

The collection is designed to integrate with numerous architecture and



- The collection is made from iroko wood

interior projects across the hospitality sectors, and the use of oil-treated iroko wood makes them solid and stable in outdoor environments.

"We aim for aesthetic durability as a main feature of a sustainable and timeless product that endures well beyond temporary design tendencies," said the studio in a statement.

### MORE ON CLAD-KIT:

Keyword: **Matteo Thun Atelier**





# CLADbook 2018

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# BARR + WRAY

CREATORS OF WELLBEING AND RELAXATION

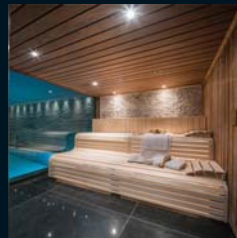
Interior Design | Engineering Design | Pool + Thermal Installation | Maintenance



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Alister MacDonald, chair & CEO

### About us

Founded in 1959, Barr + Wray is recognised as a world-leading provider of spa design, engineering, and pool and spa equipment. Our worldwide services include the following:

- Engineering consultancy: for wet area items such as pool water filtration systems and bespoke thermal experiences – saunas, steamrooms, ice fountains, hammam, heated loungers and snow cabins.

- Interior design: a highly innovative design team offering a fully coordinated and integrated spa interior design solution.

- Supply and install: installation of all wet area equipment by our own in-house team of fitters.
- Aftersales: offering a quality aftersales and maintenance service for all projects. We are also suppliers of vitality/ hydrotherapy pools, lap/exercise pools, cold plunge pools, onsen, thermal cabins, saunas, steamrooms, hammams, snow cabins, rasuls, experience showers, ice machines, heated loungers/ benches and massage tables.

### Key markets

Health & fitness, hotels & hospitality, spa & wellness, sport & recreation.

Barr + Wray has supplied over 300 spas around the world. We are headquartered in the UK with subsidiary offices in Dubai and Hong Kong.

### USP

Being able to create award-winning spas, offering a full interior design package and a technical ability to supply spa wet area solutions, offering flexible and cost-effective services unrestricted by geography or size.

### Key clients

Four Seasons, Le Meridien, Jumeirah Group, Mandarin Oriental, Ritz Carlton, IHG, Fairmont Raffles, Shangri-La, One & Only, St Regis, Grand Hyatt and Leela.

### Further information

Barr + Wray continues to remain a key driver in the design and engineering aspects of spa resorts worldwide, supplying to both new and existing customers. Barr + Wray hopes to increase its presence across new international territories and markets, helping to expand our client-based portfolio.



ESPA Rock Sauna at Resorts World Sentosa, Singapore





global  
spa  
evolution  
[www.bluspasinc.com](http://www.bluspasinc.com)





## Blu Spas, Inc.

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Facebook: [www.facebook.com/BluSpas](http://www.facebook.com/BluSpas)



Cary Collier and Doug Chambers, principals & co-founders

### About us

Since the 1998 launch of Blu Spas spa wellness design and planning company, Cary Collier, Doug Chambers and their international team have provided consulting, advisory and operating solutions for over 400 projects in 39 countries – including hotels, resorts, clubs and residential properties.

### Key markets

Hotels & hospitality, spa & wellness, mixed use & urban regeneration, sport & recreation, residential, active living communities, hot springs, integrative wellness projects (including spa and fitness) and hydro /thermal concepts.

### Product range and services

Blu is a full-service firm offering consulting, advisory and operating solutions. Blu has extensive experience in the wellness, spa, salon and fitness industries, masterplanning and concept development, business analysis and modeling, design and project planning, FF&E and product designation, pre/post-opening support and creation of experiences, branding and wellness partnering.

### USP

Blu Spas' long-standing commitment is to create extraordinary experiences and adventures for people of all ages.

Blu has been recognised for innovative concepts; for capturing authentic and marketable qualities from local cultures; for delivering memorable facilities and guest experiences; for its market-based approach to planning and for its pre-and post-opening business advisory services.

Features that today's spa goers consider de rigueur – spa suites with private pools, baths and/or showers; orchestrated indoor/outdoor spa experiences; indigenous healing traditions and local culture were pioneered by Blu's visionary creative team. Their mantra: create "sensory sanctuaries" that honour and celebrate a sense of place, culture, heritage and sustainable practices.

### Key clients

Four Seasons; Marriott | Ritz-Carlton, Luxury and Autograph Collection, St. Regis, W Hotels, Bulgari, Le Meridien, Tribute Portfolio; Hilton | Waldorf-Astoria; Two Roads Hospitality; Kimpton; Nobu; Hard Rock; Howard Hughes and Blackstone.

### Further information

Blu seeks to launch proprietary concepts: evolutionary wellness and spa experiences and alliances for compelling technologies.

Blu Spas and a team led by Hirsch Bedner Associates planned and designed the spa at the Four Seasons Hotel, Kyoto, Japan





Dornbracht  
Culturing Life

LifeSpa



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Matthias Dornbracht,  
CTO



Andreas Dornbracht,  
CEO/CFO

### About us

Dornbracht is a family-owned manufacturer of high-end faucets and spa systems and one of the few companies where production is entirely 'Made in Germany'. Ninety per cent of Dornbracht's suppliers are from Germany. Dornbracht sustains the highest standards, delivering manufacturing quality at the highest level with the company paying particular attention to its innovation in production.

### Key markets

Hotels & hospitality, spa & wellness. Dornbracht products are distributed worldwide: The company has 16 branches and various commercial agencies. The Spa sector is one of the fastest growing industries worldwide, and this is reflected in our portfolio.

Dornbracht's Smart Water philosophy forms the basis for a new, digital future in the bathroom and kitchen.

### USP

Dornbracht is turning the bathroom into a LifeSpa: Dornbracht's LifeSpa vision has taken the idea of health-oriented bathroom design to a new level. The LifeSpa concept epitomises the holistic approach to bathroom planning and furnishing in the sense of a healthy and illness-preventive lifestyle.

### Product range and services

As a manufacturer of high-end faucets, shower and Spa systems our products are premium in terms of function and finish. We provide installation support and guidance. All products come with a worldwide aftersales service to guarantee

trouble-free operation. Dornbracht offers every available finish and additional custom finishes are possible.

### Key clients

As a partner in both the design community and the international spa industry, Dornbracht builds on the ideas and needs of professionals involved in designing spas and bathrooms. That means architects, designers and interior designers, developers and investors.

### Recent projects

The Spa innovation, Aquamoon, is a subtle, architectural gesture that fits harmoniously into LifeSpa. The attention focuses on the exceptional water experience. Water is directed to create the feeling of enveloping the body in a protective cocoon, surrounding it in a cascade, or swirling around it in weightless, soft drops.

### Further information

The Dornbracht brand signifies knowledge, ideas and inspiration related to water. Architecture, lifestyle, design, technology and culture together form the foundations of the brand. The brand claim "Culturing Life" emphasises the cultivation and enrichment of bathroom and kitchen habitats, not on a solely aesthetic level, but a holistic one too.

The LifeSpa concept is a modular system





FABIO ALEMANNO

## HEATED MARBLE SCULPTURE



### DEVELOPED FOR THE SPA PERFECTED FOR THE SUITE

Cut from a single block of flawless marble, ergonomically shaped, unique in their design and structure, Fabio Alemanno infra-red heated lounge chairs combine wellness with design and technology offering unparalleled comfort and amazing relaxation experiences while enhancing the state of well-being.

Unlimited choices of marble, exotic wood, leather, and fabrics enable a perfect and seamless integration into any environment, offering architects and interior designers endless possibilities for customisation.

To learn more about our heated lounge chairs please contact us

[info@fa-design.co.uk](mailto:info@fa-design.co.uk) | [www.fa-design.co.uk](http://www.fa-design.co.uk)





FABIO ALEMANNO DESIGN

## Fabio Alemanno Design Ltd

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Facebook: [www.facebook.com/FabioAlemannoDesign/](http://www.facebook.com/FabioAlemannoDesign/)



Fabio Alemanno,  
founder and chief executive

### About us

Fabio Alemanno Design is a family-owned company with more than 40 years of experience in architectural stone masonry. At our factory in the south of Italy we combine traditional craftsmanship with cutting-edge technologies for the development and manufacture of our heated loungers and treatment tables.

At Fabio Alemanno, we also design, manufacture and realise high-end construction projects using marble, natural- and semi-precious stone. Our marketing, showroom and logistics operations are located at our offices in the UK and Germany.

### Key markets

Health & fitness, hotels & hospitality, spa & wellness, sport & recreation. Fabio Alemanno is an international firm and retails worldwide.

### Product range and services

Our heated marble lounge chairs are the acknowledged gold standard in luxury hotel, spa and residential design. The proven therapeutic benefits of long-wave infrared, together with the technological superiority of our products, makes them the first choice for discerning clients around the world.

Cut from a single block of flawless marble, Fabio Alemanno heated lounge chairs are pieces of modern art with an intimate usefulness no marble sculpture could ever achieve. Ergonomically shaped and unique in their design and structure, the chairs combine wellness with design and technology, offering unparalleled comfort and an amazing relaxation experience.

Their regenerative warmth will pamper your guests, whether in the spa or the intimacy of the suite, making their stay unforgettable. Unlimited choices of marble, exotic wood, leather and fabrics enable a perfect and seamless integration into any environment, while offering architects and interior designers endless possibilities for customisation.

As well as the design and manufacturing of our heated marble lounge chairs and tables, we offer bespoke marble and natural stone-masonry services for the hotel, spa and residential markets.

### USP

Based on ancient knowledge – and confirmed by scientific research – warmth is one of the most important sources of healing and preventative therapy available. Warmth is a long wave infrared and as well as

the sun, it is radiated by the soil (mud therapy), by the sand (sand bath therapy) and by the marble and other mineral rocks (including hammam and hot stone therapies).

Our heated lounge chairs combine the healing properties of natural stone with the therapeutic effects of long-wave infrared rays. An integrated, controllable electrical system warms the lounge from within, the warmth radiating through the stone. This provides many health benefits – such as stress reduction, detoxification and the treatment of muscular and osteopathic injuries.

The loungers use a variable-tilt technology, which creates the perfect inclination and delivers an almost zero-gravity effect – all with the body fully supported. A flexible, responsive three-zone heating system ensures optimal temperature regulation and the loungers can be easily moved thanks to integrated castors. With an easy-to-clean surface, Fabio Alemanno lounge chairs can be used for a wide range of applications at spas, in hotels and in residential projects.

### Key clients

ESPA, Rixos, Mandarin Oriental Hotel Group, Centara Hotels and Resorts, Reebok Armenia, Six Senses, Capella Group, Fairmont Hotel, Eupepsia.



High-end spa, wellness and medical equipment.  
Made in Germany.



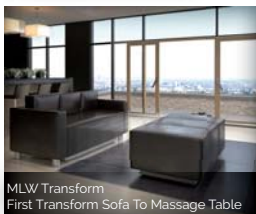
PediSpa Series



Libra Horizontal  
Choreographic Shower Series



MLX Quartz Spa Table Series



MLW Transform  
First Transform Sofa To Massage Table



MLX Limber  
Patented Universal Spa Table



MLW Spa Table Series



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Sammy Gharieni, founder

### About us

The Gharieni Group is a leading European manufacturer of high-end spa and medical equipment and furniture with over 25 years of experience. Made in Germany, our products are designed with the utmost attention to quality and detail. We strive for a seamless integration of functional equipment to create an unparalleled and memorable experience for clients. We want to create a unique and distinctive guest journey that fully integrates the mechanics of superior equipment with the practiced touch of the provider and truly reflects every client's brand identity.

### Key markets

With offices/showrooms in Dubai, the US, France, Netherlands, Belgium and

Germany, we provide luxury equipment to resort hotels & spas and hospitality groups seeking wellness and beauty solutions in over 70 countries. Universal in scope, and can adapt to any particular locale and create bespoke equipment to suit any and every design specification.

### Product range and services

Our company has two distinct divisions servicing both the wellness/spa and medical sectors. Our offerings integrate technology and expertise from each field to provide the best experience for guest or patient. Our spa division offers a full range of equipment that includes protocols, training and accessories to offer a complete wellness concept for treatment rooms, front of house and relaxation areas. Our medical

division manufactures demanding and sophisticated examination beds.

### Key clients

Resorts and spas, aesthetic and medical practices and day spas.

### Recent projects

Âme Spa @ Turnberry Isle, Four Seasons Desroches Island, Viceroy Dubai FIVE Hotel and Resort, La Butte Aux Bois, Kohler Lodge, Mandarin Oriental Doha, Hilton Rose Hall Montego Bay, Atlantis, The Palm, El Dorado Golf & Beach Club

### Further information

Innovation is our passion. Our HydroSpa collection for wet treatments revolutionised a dormant treatment category and we have also been working on building binaural and augmented technologies into our treatment beds.



A treatment on the SpaWave system at La Butte aux Bois, Lanaken, Belgium



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## *WELLNESS MEETS WANDERLUST*

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GOCO Hospitality is an international consulting, management and development company offering a turnkey solution to the spa and wellness sector.

Market Research & Feasibility • Concept Development • Design & Technical Services  
Pre-opening Services & Training • Management

# GOCO

## HOSPITALITY

### GOCO Hospitality

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Ingo Schweder, founder & CEO

#### About us

The specialists in designing, developing and operating spa and wellness spaces. GOCO Hospitality delivers a turnkey solution for each phase of development – from market research & feasibility through to concept development, technical design consultancy, pre-opening services and management. The GOCO Design Studio specialises in creating wellness spaces informed by an in-depth understanding of local culture, consumer needs and operational requirements. Our skilled team of urban planners, architects and interior designers craft unique concepts that deliver an unforgettable

experience for guests and support achievement of the project's business plan. GOCO Hospitality currently manages GOCO-branded spas in Venice, Italy; Crete, Greece; Ajman, UAE; and Koh Chang, Thailand, as well as the Glen Ivy Hot Springs in California.

#### Key markets

Health & fitness, hotels & hospitality, spa & wellness, mixed-use projects, urban regeneration, wellness communities, sports & recreation, and retail. GOCO is currently working on five continents, with active projects in Africa, Asia, Europe, the Americas, the Middle East and Australasia.

#### USP

GOCO Hospitality is a specialist design, development and management consultant in wellness hospitality, bringing together top talents in finance, design, operations, sales and marketing – all dedicated to wellness. Together with sister company Horwath HTL Health and Wellness, GOCO Hospitality offers a complete solution for wellness-focused projects, from market research and feasibility through to concept development, design, pre-opening and management.

#### Key clients

We are proud to work with leading hospitality providers, including Four Seasons Hotels & Resorts, the Ritz-Carlton Hotel Company, Bulgari Hotels & Resorts, Viceroy Hotels & Resorts, Emaar Hospitality, Starwood Hotels & Resorts and Steigenberger Hotels & Resorts in creating successful spas for their international portfolio.

#### Further information

GOCO Hospitality envisions and designs wellness concepts that are based on a true understanding of the project's local culture, location, consumer needs and changing demands from guests. We create wellness-based projects that have wellness as an integral part of the project and not just a facility. Contact us now to discuss how we can bring your vision to life.



GOCO Hospitality: wellness concepts based on an understanding of the project's local culture



# LEADING THE WAY

- DEDICATED TO INNOVATION, QUALITY, DESIGN & TECHNOLOGY,
- PASSIONATE ABOUT WATERPARKS,
- PUTTING OUR CLIENTS' EXPERIENCE AT THE HEART OF EVERYTHING WE DO;

**WE HAVE COMPLETED 3000 SUCCESSFUL WATERPARK PROJECTS IN 105 COUNTRIES WORLDWIDE.**

The Land Of Legends Theme Park  
Antalya, Turkey



**DREAM  
DESIGNS**

Cartoon Network Amazone Waterpark  
Thailand



**PolinWaterparks**

polin.com.tr



polinwaterparks

# PolinGroup

## Polin Group

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Sohret Pakis, director of marketing and communications

### About us

Polin was founded in 1976 in Istanbul, Turkey, and in the past 40 years the company has grown into a world leader in the design, production, engineering and installation of waterparks and water play structures, while differentiating itself from competitors with its innovative solutions and R&D focus.

Polin Group encompasses many areas: Amusement Attractions (waterparks, attractions, game technologies, aquariums, safari parks and theming; Composites Manufacturing (Composites, Fipol and Futuraform Companies);

Park Development (design studio, park services, project development, investment planning and management); Fantastik Parks (aquariums and waterparks).

### Key markets

Attractions & entertainment; hotels & hospitality; mixed use & urban regeneration; sport & recreation; retail.

Polin is headquartered in Dilovasi, Turkey, and operates a number of production plants in the country. The company has offices globally and operates worldwide, with 3,000 waterpark projects to date in 105 countries worldwide.

### Product range and services

Market leader in design, manufacturing and installation of waterslides and water leisure developments. Range of services and custom designed and manufactured products, including waterslides, waterplay structures, pools, wave parks, aquariums and gaming technologies.

### Key clients

Major theme parks and waterpark chains and other operators in the tourism, leisure and commercial industries.

### Recent projects

Legend of Aqua waterpark at Land of Legends Theme Park in Antalya, Turkey; Cartoon Network Amazone Waterpark in Pattaya, Thailand; Amaazia Water and Theme Park in Surat, India; O'Gliss Park in Le Bernard, France.

### Further information

The brands that Polin Waterparks created recently led to the firm reshaping and developing into a holding company. With this renewed organisational plan, Polin Group aims to increase profitability, efficiency and the scope of the group.

Polin Group aims to contribute to the development of the aquatics industry by leading improvements in the sector



Sparcstudio create inspiring, **innovative & award winning** spa, wellness & hotel environments with a real attention to detail. Our bespoke design approach, experience and understanding of technical & operational issues enable us to deliver long lasting, unique projects that continue to excite year after year.



Sopwell House Spa



Third Space



Aqua Sana Forest Spa



Southlodge Spa

**OUR CLIENTS INCLUDE:**

AB HOTELS, ASPRIA, CALCOT MANOR, CENTER PARCS, DISNEY, DORMY HOUSE, EXCLUSIVE HOTELS, INSPIRED VILLAGES, MARRIOTT, ROCKCLIFFE HALL, SOFITEL, THIRD SPACE

**CONTACT US**

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# SPARCSTUDIO

DESIGN CONSULTANTS

## SPARCSTUDIO

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Beverley Bayes,  
founder



Neil Fairplay,  
founder



Tom Howell,  
founder

### About us

Sparcstudio is a privately-owned design practice of likeminded designers and architects that have carved a reputation for designing highly creative, successful and award-winning spas, wellness, fitness, hotel and resort facilities. Sparcstudio offers a bespoke and comprehensive design service with real attention to detail. Logical and inspiring space planning forms the bedrock of all Sparcstudio projects. The creation of a unique product with a sense of place and dramatic lighting design always form a key component of Sparcstudio projects.

### Key markets

Health & fitness, hotel & hospitality, spa & wellness, high-end retirement villages. Sparcstudio work in the UK and central Europe, working with trusted consultants and local partners to deliver their vision.

### USP

The Sparcstudio team have a wealth of experience and knowledge gleaned from over 30 years of designing commercial projects. Each project is treated as unique, and is driven by the desire to create an amazing guest journey in environments with heart and soul.

### Key clients

AB Hotels, Aspria, Calcot Manor, Center Parcs, Disney, Dormy House, Exclusive Hotels, Inspired Villages, Marriot, Rockcliffe Hall, Sofitel, Third Space.

### Further information

Sparcstudio design beautiful, high-quality and impactful projects that attract much press coverage and many awards. The Sparcstudio team are most proud of awards won where business success is measured. Calcot Spa, Aqua Sana Forest Spa, Dormy House Spa and Third Space Tower Bridge have all won numerous awards including Mr & Mrs Smith's Best Spa Hotel and the *Times* Ultimate 100 British Hotels: Spa. *GQ* magazine included Third Space in a roundup of the world's "coolest things" and the club was the winner of the GQ Grooming Awards 2018 Best Gym.



PHOTO: © DORMY HOUSE

Sparcstudio's design of Dormy House Spa, which was described by the owner as having 'flair, imagination and vision' and among the 'most beautiful and welcoming spas in Britain'



*It is not just the bricks and mortar of a building that are important. It's about building the foundations for better lives in the community...*

# Proactive

A collaborative approach  
to leisure delivery

INVESTMENT | SUPPORT | EXPERTISE



WILLMOTT DIXON

SINCE 1852





# WILLMOTT DIXON

SINCE 1852

## Willmott Dixon

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### About us

Willmott Dixon is a privately owned contracting, residential development and property support business and one of the UK's biggest construction companies, employing more than 3,500 people with a turnover of £1 billion. Willmott Dixon delivers the social infrastructure that people depend on in their daily lives. We partner with our customers to focus on the services they want to provide, not just the building we construct, and we are committed to achieving a higher social purpose through our work.

### Key markets

Health & fitness, sports & recreation, hotel & hospitality, spa & wellness, mixed-use projects, urban regeneration, higher/further education. We work across multiple sectors, delivering leisure and sports facilities, hotels, theatres and multi-use spaces.

### Product range and services

We understand the issues our customers face, which is why through our network of partners, we are able to provide a 'toolkit' of solutions that can be tailored to specific customer needs, including the new Core+

concept – a modular-based leisure space solution. We also work on funding and feasibility, design and construction right through to the operational phase.

### USP

The purpose of our business and our people is to build lives less ordinary, leaving a lasting impact through the projects we deliver and the communities we serve. Sustainability is at the heart of our business and we are passionate about leaving the right sort of social, environmental and economic legacy. Being sustainable means we can create whole life value for our customers and partners, and for the users of the buildings we construct.

### Key clients

Local authorities, private developers and operators.

### Recent projects

Littlehampton Wave, UK; Hart Leisure Centre, Fleet, UK; ExCel Sports Hub, Walton on Thames, UK; Moberly Sports Centre, Westminster, London; University of Warwick Sports Hub, Warwick, UK; Horwich Leisure Centre, Bolton, UK.

Hart Leisure Centre is a new facility featuring an eight-lane 25-metre swimming pool, climbing wall and eight-court sports hall



Stephen Parker,  
national leisure sector lead







