

“

This is just
the beginning

Toshiko Mori
on women in
architecture

**Claire
Weisz**

On her mission to
improve our cities

PROFILE

**Kim
Herforth
Nielsen**

Exploring
the circular
economy

*The story behind
Kengo Kuma's
V&A Dundee*

A portrait of Toyo Ito, a Japanese architect, smiling and wearing glasses and a dark jacket over a grey shirt. The background is a plain, light grey.

TOYO ITO

{ *There is still much for me to do* }



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“ My ten year old son burst into tears and says he worries all the time about the future of the world ”

Moving towards a circular economy

Carbon emissions are expected to increase by 2.7 percent in 2018, according to new research, published by the Global Carbon Project. With the entire future of the world in serious jeopardy, architects must move fast to contribute to the solution

In the wake of a report by the Intergovernmental Panel on Climate Change, which is warning that we have just 12 years to act in the face of global climate change to avoid catastrophe, the future of our planet has been a frequent topic of conversation in our house.

The other day, my 10-year-old son burst into tears, and said he worries all the time about the future. I understand his fears; it's easy to become overwhelmed in the face of the challenges ahead.

He's not alone – the American Psychological Association has validated 'eco-anxiety' as a clinically legitimate diagnosis.

We're approaching crisis point when it comes to the environment. Now is the time for us all to take serious action.

Architecture has a key role to play when it comes to averting climate catastrophe, as our built environment is one of the world's biggest consumers of raw materials and a major producer of waste and carbon emissions.

To comfort my son, I told him that what gives me hope is the fact that every day I speak to people in the profession who are working to come up with real solutions.

I'm not talking about a token green roof or solar panels on an otherwise unsustainable building – because I see plenty of projects that are green in name only. I'm talking about people who are taking this issue seriously, and who are coming up with ingenious, practical ideas that will actually make a difference.

In this issue, I interview Kim Herforth Nielsen, founder of Danish architectural practice 3XN. Herforth Nielsen and his team established in-house green think tank GKN in 2000, with the aim of researching sustainable materials and building methods.

The team at GKN are particularly interested in the circular economy model, which sees buildings designed so that when they come to the end of their useful life, they can be



Quay Quarter Tower: architects can make a difference

Carbon levels are the highest they've been for 3.5 million years and the window of opportunity for action is almost closed

dismantled and the materials which were used to construct them reused.

Arup has teamed up with GKN and the Ellen MacArthur Foundation to produce *First Steps towards a Circular Economy*, a report exploring how circular economy principles can be translated into everyday practice.

Construction is underway on the 3XN-designed Quay Quarter Tower in Sydney, in collaboration with Arup. This project sees two thirds of the original tower retained, while materials from the demolished third are being reused in the new building. It's great to see an example of circular economy principles being applied.

It's time to move away from a make/use/dispose economy which too often sees building components ending up in landfill and to recognise that natural resources are finite, and we simply can't continue to use them the way we have been.

Our planet is changing. Architecture must too.

Magali Robathan, managing editor, CLAD



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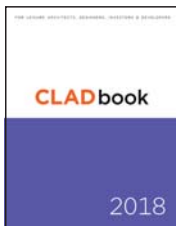
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The Climate Tile can be adapted
to any city that experiences
problems with heavy rain

Ole Schrøder and Flemming Rafn Thomsen

founding partners, Tredje Natur



PHOTOGRAPH BY JENNY CLARKE

Danish architects Ole Schrøder and Flemming Rafn Thomsen, through their studio Tredje Natur (Third Nature), have launched an innovative paving slab aimed at improving rainwater management. The Climate Tile allows run-off water from roofs and sidewalks to be siphoned to where it can be used, rather than to simply drain into sewers, reducing the strain on water management systems in towns and cities.

The interlocking tiles are fitted internally with a series of vertical and horizontal pipes that can direct water as required and be fitted with "plug-ins" to modify the use of each tile. Typically, water might be directed to roadside flowerbeds or herb gardens, where it can seep through soil gradually rather than washing over the surface.

Ole Schrøder (left) and Flemming Rafn Thomsen (right) want to help cities prepare for climate change



The interlocking tiles are fitted internally with horizontal and vertical pipes

"The Climate Tile is scalable and can be adapted to any dense city globally that experiences problems with heavy rain," Thomsen told CLAD. "With the Tile, future sidewalks will collect and manage water, whilst contributing to the growth of an urban nature and improved microclimate, thereby generating added value for the citizens and raising the level of life quality and general health within cities."

"It works in synergy with roads, bike paths, signage, urban furniture, town squares, urban nature and more. The solution is relevant for any city wanting to offer liveable urban spaces for their citizens."

The Climate Tile has been in development since 2014 and co-funded to the tune of 1,1 million DKK (£130,400) by the Danish Business Authority's Market Development Fund.

A 50m pilot pavement of Climate Tiles was inaugurated on 27 September 2018 in the Nørrebro district of Copenhagen in collaboration with the Copenhagen Municipality, and Tredje Natur is planning to bring it to market in the near future. Schröder and Thomsen are hoping that the Climate Tile will be rolled out across



more of the 700 km and several million square meters of sidewalks in the city.

"The Climate Tile is a hybrid solution adding several capabilities to the pavement tile as we know it," Thomsen said. "Pavement and water management in our streets are both in the hands of the

municipality and the utility companies. Now we have a solution that merges the two's responsibilities into one project, which also increases the complexity of the project. But if the city's sectors and systems don't work together we'll never be able to prepare our cities for climate change."



We wanted guests to
feel as if they are living
deep in the forest

Soohyun Chang
founder, Atelier Chang



The SJCC Glamping Resort
consists of 16 living units, an
on-site restaurant and reception



Pods feature a double-height mezzanine and panoramic views from inside

Atelier Chang have designed brightly coloured pods for a 'minimalist luxury' glamping resort near Suncheon in South Korea.

The SJCC Glamping Resort consists of 16 living units, with an onsite restaurant and reception. The units are manufactured off site and connected to the mains electricity and water supply; they feature a living area, two bedrooms and a kitchen and bathroom. They are made from a lightweight steel frame, covered with an insulated tent-like fabric, making them suitable for use in the summer and

winter (when temperatures can drop as low as minus 15 degrees celsius).

Soohyun Chang, founder of Atelier Chang – which has offices in London and Zurich – told *CLAD* the resort was designed to bring guests closer to their natural surroundings: "It's not about observing nature from far away or from behind a glass screen. For millennials who are seeking different sorts of experiences from those offered by more conventional theme parks or beach resorts, our approach provides a chance to create a truly memorable experience in the most spectacular of natural surroundings.

"We designed the units in a way that would offer guests a unique experience of staying in a natural, open space including a double-height mezzanine, a wide open floor plan and panoramic view from inside. Having taken this project through so many prototypes, we've achieved the most minimal way of construction using the lightest materials possible."

Chang told *CLAD* that she has had enquiries from companies interested in the glamping units from Australia, Europe and Asia, and is seeking investors to create a similar glamping resort close to London in the UK.

"Compared to other forms of hospitality developments such as hotels or chalets, the upfront costs and time spent in planning is greatly reduced," she said. "These units can even be used as temporary structures to maximise the value of a site prior to planning approval being granted for a more substantial resort development and construction taking place. Each unit is generally less than the typical cost of a car such as a Toyota Prius, and can be ordered and manufactured in as little as 8-10 weeks."

Before launching Atelier Chang, Chang worked as an architect for Herzog & de Meuron and Zaha Hadid Architects.



The resort's striking restaurant is designed to let the natural surroundings in



Hank Haeusler is researching how buildings can become responsive to behaviour

What happens if a space becomes a robot?

Hank Haeusler
professor, UNSW

Could the future of architecture lie in spaces that adapt to the behaviour of the people who use them?

A research project by computational design students at the University of New South Wales in collaboration with Arup set out to answer that question.

The group have revealed the 'Centaur Pod', an interactive meeting room which – when completed – will have the protean ability to learn from and adapt to external stimuli.

Arup, which has been in talks with UNSW researchers since 2017, took on the project to simultaneously explore three interrelated domains: machine learning artificial intelligence (AI), augmented reality (AR) and virtual reality (VR), and digital fabrication.

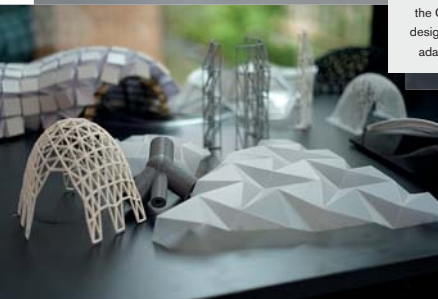
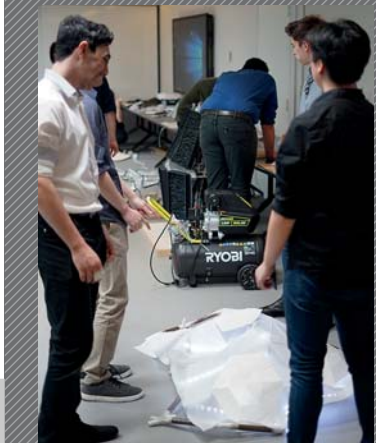
According to UNSW Professor Hank Haeusler, the Centaur Pod – named after the mythological hybrid – will imitate robotic artificial intelligence (AI) by using a kind of memory process to analyse body movements. The sensory information acquired from these observations will stimulate the Pod to rearrange its structure.

Haeusler told *CLAD*: "We're interested in the ideas: How will technology change the way cities and buildings will be designed, operated, and constructed? What happens if a space becomes a robot?"

The professor suggested that his colleagues' findings could have wider applications, telling us: "The research we're doing with Arup could probably lead into commercial or residential applications quite easily."



Through the research, the Centaur Pod is being designed to learn from and adapt to external stimuli

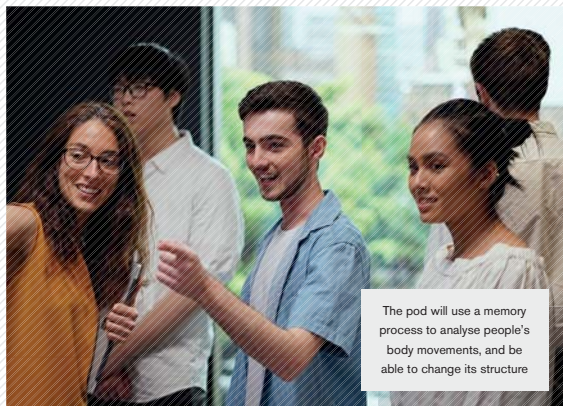


Initial responsive buildings would "alter space depending on need," continued Haeusler. In doing so, they would also optimise energy output.

"If you have a building that understands your behaviour and is therefore responsive, it can adapt to your day-to-day performance towards energy conservation," he said. "It can also help create activity-based work environments, such as desks that would arrange themselves into groups based on the work habits of employees."

The UNSW team is currently working on the specifications of the Pod, which could be built as a six to nine-metre pavilion.

The pod's first iteration is due to be completed in April or May 2019. The structure will then be presented at Arup's offices in Sydney, Melbourne and Brisbane.



The pod will use a memory process to analyse people's body movements, and be able to change its structure

As a young girl, I always dreamt of designing my very own spa

Kelly Hoppen, interior designer



Hoppen was made an MBE in 2009 for her services to interior design

Global interior designer Kelly Hoppen has created a 22,000sq ft (2,044sq m) nature-inspired spa and on-board accommodation for the newly launched Celebrity Edge cruise line.

Hoppen, whose career spans four decades, is known for her subtle "east meets west" style based on clean lines and neutral tones blended with warmth and opulence". She's put her stamp on the homes, yachts and jets of private clients around the world and now focuses on commercial projects including restaurants, bars, hotels and spas.

"The spa has always been a sacred space to me. As a young girl, I always dreamt of designing my very own spa and Celebrity Edge proved to be the perfect outlet for living out my dreams," she said.

"A spa is a place where one goes to relax and be pampered, so for me The Spa on Celebrity Edge had to be neutral in palette with complementary lighting, evoking a sense of calmness. Every aspect of the design is meaningful to me; from the dramatic crystal installation – which was inspired by the qualities that crystals have had on my life – to the imposing and dramatic, yet Zen sculpture acting as a reception desk."

Hoppen also designed the accommodation on-board the ship, including two Iconic Suites situated above the bridge, which open onto a veranda offering panoramic views from front to back.

Based in Florida, Celebrity Edge launched at the beginning of December, and was christened by Nobel Peace Prize winner Malala Yousafzai. The ship is owned by Celebrity Cruises, which has a fleet of 12 ships plus another three being built.

Other hospitality projects Hoppen has worked on include the *Lux Belle Mare* and *Lux Grand Gaube*, both in Mauritius. ●

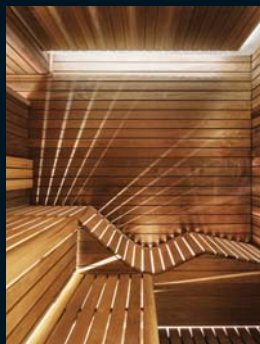


Hoppen's signature modern, luxurious style can be seen in her design of the Sky Suites



Hoppen designed all of the accommodations as well as the spa







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CLADkit

The biggest news from the world of product design, from a 'digital wonder wall' robot to stylish lamps that can nourish green spaces



PHOTO: TIBB FABB: CARLO RATTI ASSOCIATI



• The writing's on the digital wall: Scribit works on a two-axis plane and moves up and down on thin cables

Carlo Ratti's 'wonder wall' robot could become reality with crowdfunding



Scribit is a robotic system that draws on any vertical surface, following a primordial act performed by humanity since our first cave graffiti

Carlo Ratti

Carlo Ratti Associati has developed an intelligent robot capable of writing and drawing on vertical surfaces. Called Scribit, the device allows users to personalise any wall, transforming it into a 'wonder wall', with customisable digital content. It can be installed in just five minutes, needing only two nails and a power point, and features patented technology that enables users to draw, erase and re-draw new content numerous times without damaging the surface. Controlled by an app, users can upload content, or source it from the internet. Its interactive software enables the device to replicate any kind of data - including notes, messages, images and graphics - in real time. Once digital information is received by Scribit it begins to replicate it immediately.

The Scribit is circular in shape and measures 20cm x 8cm (7.9" x3") in

diameter, it is covered in aluminium, with four different coloured marker pens at its centre. It works on a two-axis plane and moves up and down on thin cables attached to the surface.

"We're totally deluged with information, and spend too much time of our non-sleeping time in front of one form or another of digital screen - TV, desktop computers, laptops, tablets or phones. Do we really want to add more screens to our lives," said Carlo Ratti, founding partner of Carlo Ratti Associati and director of the MIT Senseable City Lab at MIT.

"Scribit offers up an alternative: a robotic system that draws on any kind of vertical surface, following a primordial act performed by humanity since our first cave graffiti."

More on CLAD-kit.net

Keyword: CARLO RATTI

Aotta eco-panels utilise 'charming' hemp seeds, says Tanya Repina

Russian design studio Aotta has developed a range of eco-friendly, sound-absorbing panels made from the waste products of hemp seeds.

Made from the seed husks, which form when the seed is peeled and are usually discarded, the panels are designed to maintain 'healthy spaces' and consist of hemp husks fashioned into a natural porous membrane that absorbs sound and regulates temperature and humidity levels.

The shape of the husk is preserved to create a unique and visually-interesting tactile panel that is 100 per cent biodegradable, whilst being strong enough for long term use.

In addition, the panels are non-flammable with anti-fungal properties and are available in a number of different collections, including The Island collection, which features rounded geometric shapes and are designed to



We were charmed by hemp for its exceptional appearance. Unusual finishing materials are trendy now

Tanya Repina, designer at Aotta

give the feeling that the panels have grown organically out of the walls.

Tanya Repina, designer at Aotta, says: "We were charmed by hemp for its exceptional appearance. Unusual finishing materials are trendy now. The husk consists of half semi-spheres and looks like small shells on the seashore."

More on CLAD-kit.net

Keyword: AOTTA



- The panels are made from discarded hemp husks, and offer natural sound absorption



Maha Kutay on carpet collection celebrating Zaha Hadid's legacy

The Zaha Hadid Gallery has partnered with carpet manufacturer Royal Thai to create a new carpet collection inspired by the work of the late Zaha Hadid.

Billed as a celebration of Hadid's legacy, the collection, called RE/Form, made its debut at this year's London Design Festival, and consists of 22 designs inspired by themes - organic cellular shapes, pixelated landscapes, striated lines and ribbon-like projections - featured prominently in Hadid's work.

Zaha's product design and architecture have always been connected; with furniture projects being part of our repertoire from day one

Maha Kutay, director of Zaha Hadid Design

The carpets capture Hadid's notable use of layering and interweaving as well as her use of light and shadow, and are Axminster-loomed and hand-tufted, with a vivid colour palette that includes bold shades of red, green and turquoise.

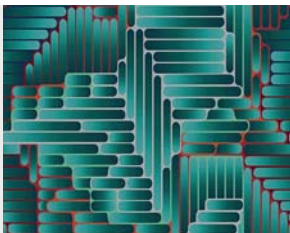
Maha Kutay, director of Zaha Hadid Design, says: "Zaha's product design and architecture have always been connected; some of the earliest projects in the office were designs for products, interiors and furniture."

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Keyword: ZAHA HADID



- The new carpet designs capture Hadid's use of layering and interweaving





- The collection is made almost entirely from sustainable and versatile Portuguese cork

Humberto Campana introduces sustainable cork collection

Brazilian design firm Campana has created a four-piece furniture collection made almost entirely from Portuguese cork.

The collection, called Sobreiro, made its debut at the Experimenta Portugal arts and culture festival at the Consulate of Portugal in São Paulo, Brazil, and was designed to showcase cork's potential as a sustainable and versatile material.

It combines Brazilian design with Portuguese materials and consists of an armchair and three cabinets in a neutral brown palette with nature-inspired designs.

The armchair is made entirely of cork, while the cabinets have wooden frames



PRODUCT PHOTOS COURTESY OF ESTUDIO CAMPANA, EPCCA AND MOREM PHOTO BY NUNO SOUSA DIAS

Cork has always fascinated us, not only because it's an ecological material, but because of its lightness

Humberto Campana



COURTESY OF ESTUDIO CAMPANA PHOTO BY WERNER LASSLO

to support their structures, and are made from an expanded cork agglomerate, a material created when cork is heated, with one of the cabinets being made from a cork agglomerate-natural clay hybrid.

"Cork has always fascinated us, not only because it's ecological, but because of its lightness," says Humberto Campana

"The texture and variety of applications enrich the possibilities of expressing through the material a lot of new concepts and gestures."

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Keyword: CAMPANA

Holocene oil lamp creates atmosphere, says John Pawson



PHOTO: GILBERT MCKENNA/BAUER

- Holocene No. 4 is a free-standing oil lamp made from stainless steel and aluminium

Swedish lighting company Wästberg has expanded its Holocene collection, with a new addition, Holocene No. 4, designed by acclaimed architect John Pawson.

Reflecting Pawson's pared-back style and neutral palette, Holocene No. 4 is a modern twist on a traditional oil lantern. The free-standing lamp is cylindrical in shape, and is made from stainless steel and aluminium. It features a squared-off handle and a matte-exterior drum with a polished interior, designed to best reflect candle light. It measures 40 cm in height and is suitable for both indoor and outdoor use.

It is the fourth light in the collection, which boasts pieces designed by architects Ilse Crawford, David Chipperfield and Jasper Morrison and eschews electricity in favour of non-electrical light sources.

"Working with Wästberg was a real opportunity to design something I really wanted," says Pawson.



PHOTO: CINDY TALLANO

I wanted to create something that had its own presence, so that when you set it down it makes its own atmosphere

John Pawson

"Lighting is the biggest element of architecture and completely changes one's perceptions of space. I wanted to create something that had its own presence, so that when you set it down it makes its own atmosphere."

More on CLAD-kit.net

Keyword: WÄSTBERG



The lamp brings together technology & Venice's know-how while helping plants to thrive

Jakob Lange, BIG partner

Gople creates environment for plants to thrive, says Jakob Lange



- The lamps are also designed to nourish green spaces

BJARKE INGELS GROUP has partnered with lighting design firm Artemide to create the Gople Lamp, a new lighting concept, that is designed to 'reconcile human spaces and nature through light.'

The lamp, which debuted at London Design Week, combines modern techniques with artisanal traditions. It has a pill-shaped glass form, available in three different colour ways: white, bronze and silver, created using ancient Venetian mouth-blowing techniques, and features patented RWB (red, white and blue) lighting technology that is



- The lamps are available in white, silver and bronze

designed to nourish nature and enhance plant life and human perception.

It was inspired by 'area2071', a BIG project in Dubai that featured lamps that were capable of simultaneously illuminating and nourishing the green spaces.

More on CLAD-kit.net

Keyword: BIG



- The glowing tiles use luminescent pigments and are available in four colourways

Dave Foster unveils Designworks glow-in-the-dark tile collection

High-end tile supplier Designworks has created a range of glow-in-the-dark mosaic tiles for commercial use.

Designed to bring light into wet areas, the Fosfo range uses luminescent pigments, which 'charge' when exposed to light, to create a spectacular glow-in-the-dark display.

The collection is available in four different colourways as a dramatic blocked sheet, or in six different colourways in a random pattern effect.

The tiles feature the company's 'JointPoint' technology, an innovation that allows for



Our new Fosfo collection adds vibrancy, fun and distinction to the Designworks mosaics range

Dave Foster, Designworks

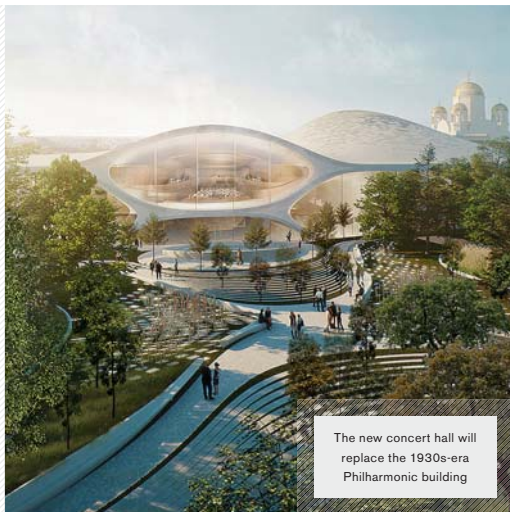
easy application and stronger adhesion. "Our new Fosfo collection adds vibrancy, fun and distinction to the Designworks mosaics range. These tiles work beautifully as a feature wall in spas and steam rooms and look spectacular when integrated in swimming pools, especially at night," says Dave Foster, head of Leisure Sales at Designworks.

"This new collection will be very popular among luxury hotels and spas looking to add a unique touch to guests experience, and we're very excited to offer this special product to our clients." ●

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Keyword: DESIGNWORKS

CLAD News



ZHA reveal sonic wave-inspired design for Russian concert hall

Zaha Hadid Architects (ZHA) have been selected to reimagine the Sverdlovsk Philharmonic Building in Yekaterinburg, Russia.

The firm competed against 47 contestants from around the globe in a competition organised by the Sverdlovsk Region's Ministry of Construction.

Located in the Ural mountains, the sonic wave-inspired concert hall – which has drawn comparisons to a spaceship – will have a 1,600-seat auditorium, as well as a 400-seat chamber music hall.

The venue will also include a rooftop terrace which will provide concert-goers with panoramic views of Yekaterinburg's All Saints Cathedral.

In a statement, ZHA said: "The design re-interprets these physical acoustic properties to define spaces for the auditoria that are suspended within the canopy, appearing to float above the new civic plaza that is both the lobby of the Philharmonic Concert Hall and an enclosed urban square."

The new building is expected to evoke Yekaterinburg's history as the cultural and social capital of the Urals. "It will enrich the city," said Pavel Krekov, deputy-governor of the Sverdlovsk Oblast.

Yekaterinburg, which is home to the internationally acclaimed Ural Philharmonic Orchestra, is also considered Russia's third largest economic powerhouse. No date has been set for the concert hall's completion.





IMAGES THIS SPREAD COURTESY OF ZAHA HADID ARCHITECTS



🌱 Russia has been a formative influence on our creative work. 🌱

Christos Passas



The space will also feature a public plaza

Bjarke Ingels reveals designs for Oakland's new 'intimate' baseball stadium

Major League Baseball (MLB) franchise Oakland Athletics has revealed detailed designs for an ambitious waterfront stadium.

Designed by Danish architect Bjarke Ingels and his BIG practice, the 34,000-capacity stadium is being planned for a site at Port of Oakland's Howard Terminal.

The expansive project includes two connecting elements.

The site of the MLB team's current stadium, the Coliseum – where the club has played since 1968 – will be redeveloped in a way that will “benefit the community”, while also providing resources for the privately financed stadium.

The Coliseum site will adopt a new identity by “absorbing the

character” of the neighbourhoods around it, while the field will remain as a focal point honouring Oakland's sports history. The parking lot will become a central park, containing a ballfield amphitheatre, event spaces, and restored wetlands.

Meanwhile, the stadium itself will have views of the city and water, as well as new civic, educational, cultural and recreational amenities for the local community.

BIG is working on the designs of the stadium in collaboration with local architect Gensler and landscape experts Field Operations.

According to Bjarke Ingels, the ballpark will offer “the most intimate baseball experience in the world”. Oakland Athletics' president Dave Kaval said the venue



The ballpark will facilitate “intimate” ballpark experiences

would be “bigger than baseball

“We are excited to build a bold, iconic ballpark at Howard Terminal,” Kaval added.

“This design will allow us to blur the boundaries of a traditional ballpark and integrate into the surrounding neighbourhood.”

The Athletics will now begin a year long, state environmental review of the proposals. The franchise is also in the process of negotiating an agreement with the Port of Oakland to acquire the 55-acre property.



“This design will allow us to blur the boundaries of a traditional ballpark”

Dave Kaval

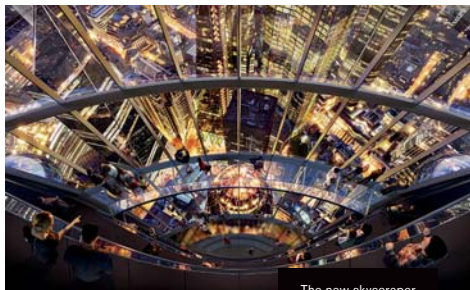


IMAGES COURTESY OF ZAHA HADID ARCHITECTS

The stadium will rise at Port of Oakland's Howard Terminal

The Tulip Tower could open to the public in 2025

Eye in the sky: Foster + Partners envision the City of London's tallest skyscraper



The new skyscraper will be slightly shorter than the Shard



Foster + Partners have unveiled images for the Tulip Tower, an observatory and event space intended to become the City of London's next cultural attraction.

The 305-metre skyscraper, which will stand alongside the now iconic Gherkin building, will be an office-free venue, providing panoramic views of the city.

Developed by J Hafra Group as part of the City Corporation of London's Cultural Mile public engagement initiative, the complex will feature a number of leisure amenities and facilities, including internal glass slides, gondola pod rides and a restaurant.

The site will also include a rooftop garden, pocket park, and sky bar.

Speaking about the Tulip Tower, Norman Foster, founder and principal at Foster + Partners said: "Continuing the pioneering design of 30 St Mary Axe [the Gherkin] the Tulip is in the spirit of London as a progressive, forward-thinking city.



The tulip is in the spirit of London as a progressive, forward-thinking city

Norman Foster

"It offers significant benefits to Londoners and visitors as a cultural and social landmark with unmatched educational resources for future generations."

If the company's plans are approved, construction on the landmark could start as early as 2020 with completion projected for 2025.

Grimshaw Architects offer first look at the newest Eden Project



EPN will feature a number of mussel-shaped, seaside pavilions

London-based architecture firm Grimshaw have unveiled renderings of Eden Project North (EPN), a marine-centred recreational complex and leisure attraction in Morecambe, UK.

Conceptualised for environmental charity Eden Project International, the new destination will take the form of a series of mussel-shaped pavilions on the Morecambe seafront.

EPN will also feature a number of amenities and facilities which are intended to enhance wellbeing,

including lidos, performance halls, gardens and observatories.

The development is expected to mirror the success of the Eden Project Cornwall, which – since opening in 2001 – has contributed £2bn (US\$2.5bn, €2.2bn) to the economy.

Speaking on the announcement, Dave Harland, chief executive of Eden Project International, said: "We're incredibly proud to present our vision for Eden Project North and hope that the people of Morecambe and the surrounding area are as excited about it



We aim to reimagine what a seaside destination can offer

Dave Harland

as we are. We aim to reimagine what a seaside destination can offer, with a world-class tourist attraction that is completely in tune with its natural surroundings."

Highlighting the project's potential to regenerate the area's economy, Eileen Blamire, leader of Lancaster City Council, said: "It's now important that we get behind Eden and give them our full backing to make their vision a reality."

The project's developers were allocated £100,000 from the UK government earlier this year.

MVRDV complete work on Seoul's Imprint theme park



The Imprint forms part of Korean theme park Paradise City

Rotterdam-based architectural firm MVRDV has completed construction on the Imprint, a two-building, 9,800-square-metre indoor theme park and nightclub located less than a kilometre from Incheon Airport in Seoul, South Korea.

Visually, the Imprint is a windowless structure comprising 3,869 glass-fibre reinforced concrete panels. According to Winy Maas, MVRDV's co-founder, these features were introduced in order to create a façade that would imitate other buildings in the area.

"By placing, as it were, surrounding buildings into the façades of our buildings and in the central plaza," said Maas, "we connect the Imprint with the neighbours."

The raised entrances further accentuate the Imprint's distorted appearance. Highlighted by splashes of golden paint,



Giorgio de Chirico would have liked to paint it, I think

Winy Maas

they create an optical illusion by simulating drapery.

"This makes it as if the entrance is also illuminated at night by a ray of sunlight," Maas added.

The Imprint is the most recent addition to Paradise City, an entertainment centre of hotels and attractions which MVRDV took on as a project in 2016.

The park will feature a mirage-like array of hills, lakes and green areas.

Construction has commenced on the Quzhou Sports Campus, an ambitious project which is designed to resemble a craterous landscape not unlike the conical puy of France's Massif Central.

Designed by Beijing-based MAD Architects and located in China's Zhejiang province, the sprawling, 700,000sq m (7.5 million sq ft) complex will function as a kind of mini-city and will feature a 30,000-seat stadium, hotels, youth centres, retail shops, museums, a gym and a swimming centre.

The site, which has been called "ethereal" and "mysterious", will be topographically diverse and include rolling hills, gardens, a lake and small woodlands.

According to Ma Yansong, lead architect at MAD, these natural elements are intended to illustrate how urban dwellers of the future can live harmoniously with the environment.

He said: "The relationship between man and nature is not only about ecology and sustainability, but is also about spirit and mood. This is the culture and philosophy that has long existed in the history of this land and needs to be applied in the development of our future cities."

Speaking on his aspirations for the campus, he explained: "We dream not only of creating an urban space about sports and ecology but also turning it into a unique land art park." The campus is scheduled to open in 2021.



Work starts on MAD Architects' craterous sports campus



The relationship between man and nature is also about spirit and mood

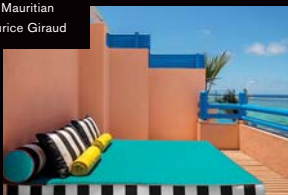
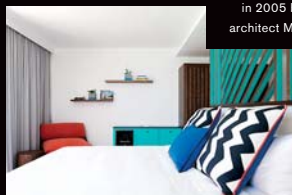
Ma Yansong



The campus will build on the "heritage and history of Shanshui culture"



The Salt of Palmar building was originally designed in 2005 by Mauritian architect Maurice Giraud



Mauritian architect Jean-François Adam and French artist Camille Walala create colourful property for first Salt location

The first property from new hotel brand Salt, launched by the team behind Lux Resorts, has opened in Mauritius.

The 59-bedroom Salt of Palmar has been conceived to champion sustainability, connect with the local community and introduce culturally curious travellers to the “real, unvarnished Mauritius,” the company said.

Its distinctive look is born out of a collaboration between local Mauritian architect Jean-François Adam of JFA Architects and French artist Camille Walala,

whose vivid murals adorn buildings across the globe.

Taking an existing geometric, riad-like building on the fringe of Palmar beach, Adam repurposed the standing structures to accentuate the hotel’s proximity to the sea.

As part of this, he orientated all beds to face the water and redesigned the pool to better its connection with the beach.

Because the brand is committed to doing things differently, it brought on Walala – an artist rather than an interior designer – to create the interiors.

“Camille Walala’s relationship with colour is precisely the same as most Mauritians’ – for both, colour is a vehicle for joy and a means of expressing positivity,” said Paul Jones, CEO of The Lux Collective. “She is the ideal artist for Salt of Palmar.”

To find inspiration, Walala travelled around Mauritius, meeting with local artisans and absorbing the bright palette that characterises the island.

The hotel will feature a Salt Equilibrium spa, which will include a salt room, five treatment rooms

and a team of local therapists offering a pick and mix of salt-based treatments to energise, relax, detoxify and rejuvenate.

Other wellness activities on offer at the resort include a Sunrise Run Club, sun salutations on the beach, meditation at Brahmakumari, a dawn photography tour, hike and bike programme and yoga at the Salt Farm Shala.

The hotel aims to create a community of shared interests for guests, as they come together to take part in a range of group activities.



The hotel has been built in an abandoned quarry

World's first subterranean resort opens in Shanghai

The Shimao Wonderland InterContinental (IHG), the world's first underground hotel, has opened in Songjiang, around 22 miles (35 km) from Shanghai in the Sheshan Mountain Range.

Built in a 100m (328ft)-deep abandoned quarry, the hotel, which has been in development for a decade, was designed by Studio JADE+QA and the British architectural firm Atkins.

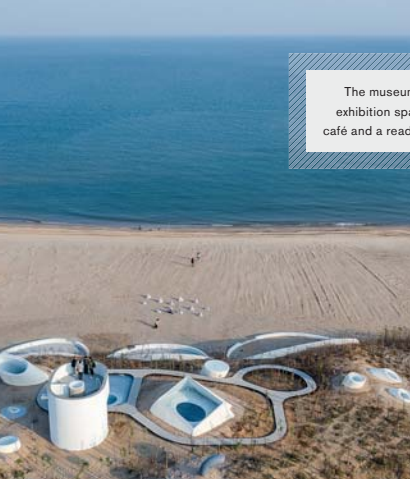
Situated around a manmade lake and amid cascading waterfalls, the 18-storey, 336-guest room structure is powered by its own geothermal and solar system and features an underwater restaurant and aquarium.

The leisure-oriented, 'waveform' venue, which won gold at the MIPIM Asia Conference in 2011, also has a swimming pool, as well as facilities for bungee jumping and rock-climbing.

IMAGES COURTESY OF JADE+QA



The resort is expected to host 500,000 guests per year



The museum has exhibition spaces, a café and a reading room

PHOTO: WU JINGSHAN



Sandcastle-inspired Dune Museum opens on China's Gold Coast

The Ullen Centre for Contemporary Art (UCCA) has opened a museum outside Beijing on China's Gold Coast, inspired by sandcastles.

Located in the Aranya Gold Coast Community on the shore of the Bohai Sea, UCCA Dune is the region's first major contemporary art institution.

Designed by Li Hu and Huang Wenjing of OPEN Architecture, UCCA Dune was created to evoke "children's tireless digging in the sand". It is almost entirely covered by windswept dunes and features a network of interconnected caves which house 10 exhibition galleries, a café, reception area, and reading room.

The building covers an area of 930 sq m, and in 2019 it will be extended to include a tidal causeway. This unique area – accessible only at low tide – will link visitors to a semi-submerged "Sea Art Space".

In a statement, UCCA director Philip Tinari said: "UCCA is excited to move beyond its flagship location in Beijing with a permanent presence in this stunning building in a gorgeous natural setting.

"We look forward to working with great artists to show their work in this new context, and to offering our members and visitors the chance for an unforgettable art experience by the sea."



The museum has been in the pipeline for three years

PHOTO: WU JINGSHAN



Arada reveals masterplan for vast Sharjah Central Hub



The Central Hub is a defining project for Sharjah and the UAE

Johannes Schafelner

Arada has unveiled the final details of its Aljada Central Hub mega-development.

The futuristic complex, to be designed by Zaha Hadid Architects, will span a vast 1.9 million sq ft (176,500sq m) and include 732,000 sq ft (68,000sq m) of green space.

Highlights of the family-focused development will include a 1,500-seat multiplex, a waterplay area, multiple sports facilities, retailing and an "edutainment" attraction, featuring a virtual reality zone.

The development, which will have its own microclimate and irrigation system using recycled water, will also have a wide range of trees and plants.



The new destination is expected to be completed in 2022

According to Johannes Schafelner, project director at Zaha Hadid, the Central Hub will show "how conscious design can work with the environment".

Sheikh Sultan bin Ahmed Al Qasimi, chair of Arada, said: "Our plan has always been to build extraordinary, engaging and life-changing communities. That is reflected in the bold final design of the Central Hub, which will soon be a new focal point, not just for

Aljada, but also for the whole of Sharjah and the rest of the UAE.

Prince Khaled bin Alwaleed bin Talal, vice chairman of Arada, said: "Sustainability is absolutely central to Arada's vision, and that has been reflected in the Central Hub's final design. We're working hard to protect and encourage local native species, as well as making the most of our natural environment."

Arada expects the entire complex to be completed in 2022.

IMAGES COURTESY OF ZAHA HADID ARCHITECTS





The design explores
'the future role of libraries
as social spaces'

MAIN: COURTESY OF BAF; INTERIOR: CARLO RATTI ASSOCIATI

BAF and Carlo Ratti scoop futuristic "library as a town" project

Carlo Ratti Associati and Bio-architecture Formosana (BAF) Architects have been selected to design the newest addition to the Taiwan National Library and Repository.

The firms beat nine other competitors to secure the commission. The new public building, set to be constructed on a wooded plot in Tainan, will feature both as a monument and as a kind of educational town.

In a statement, BAF said: "The concept of library as a town was inspired by the humbleness of the context while creating a 'town' as part of the town fabric. Three main ideas drive the creation of this chance encounter: the integration with nature, the

openness of learning and the 'museumisation' of the library."

The planned space, which will explore the future of open access learning, will function as a book museum and archives hub, inviting people to freely explore Taiwan's digital records and observe what BAF has called

a "book-bot", an automated storage and retrieval system (ASRS).

A solar canopy will regulate the building's temperature, providing library-goers with shade while harnessing clean energy.

BAF has also indicated that the surrounding campus will preserve 90 per cent of trees

from the original plot in order to demonstrate how built environments can be harmoniously integrated into nature.

BAF says the library of the future should be both an energy-efficient park and a "hub of open learning" for "community-driven, museum-like spaces and activities". ●

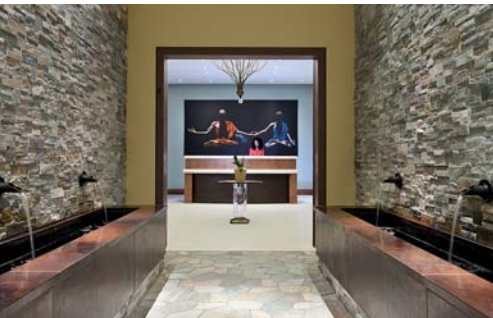


The facility will house a library, book museum and archives centre



global
spa
evolution

www.bluspasinc.com



I have one
dream with
my work.
Architecture
should
equal nature



Toyo Ito was born in Seoul in 1941. He studied architecture at the University of Tokyo

TOYO ITO

In a rare interview, the Pritzker Prize-winning architect talks frankly to **Kim Megson** about his latest projects, his changing style and why he's not looking forward to the Tokyo Olympics

Late May, and the 2018 Venice Architecture Biennale has just opened to the public. Inside the city's ancient former armoury, perspiring visitors juggle fans, cameras and programmes as they crowd around the exhibits in their hundreds. Tucked away towards the end of the Corderie – the building once used to build mooring ropes for Venetian naval fleets – lies an intimate sanctuary from the chaos and the baking heat.

Hidden behind a mysterious curtain, abstract digital shapes ripple gently across a white fabric backdrop, accompanied by an ethereal soundtrack. In the centre of the space, people relax on bean bags in calm contemplation. Among them sits Toyo Ito, quietly assessing his creation for the first time (for this is his installation for the Biennale).

"Excuse me, are you Mr Ito?" The peaceful spell is broken, as the architect – sporting his distinctive white-framed glasses – is recognised by a fellow loungeur. "Can I have a photo? You're one of my heroes!" Ito politely acquiesces. Within a minute, a long line of admirers has formed.

The reverence on display is unsurprising, particularly from this Biennale crowd. Ito, in a career spanning over 40 years, has pushed the form in new directions with a lightness of touch and a lack of reliance on a signature style. His architectural trophy cabinet buckles under the weight of the honours bestowed on him: among them a Pritzker Prize, a Praemium Imperiale, and gold medals from the International Union of Architects and the Royal Institute of British Architects.

Given all this, you might expect a certain degree of bravado. In fact, Ito keeps a relatively low profile, rarely conducting interviews. When he does speak publicly, he displays none of the bombast you might expect of someone credited by the Pritzker judges with "extending the possibilities of architecture."

Take his statement upon being awarded the Pritzker, for example. He declared: "When one building is completed, I become painfully aware of my own inadequacy, and this turns into energy to challenge [me for] the next project. Probably this process must keep repeating itself in the future.

"Therefore, I will never fix my architectural style and never be satisfied with my works."

While modest to the last, Ito does at least take a more positive view of his output when we sit down for this interview at his hotel, a short water bus ride away from the hubbub of the Arsenale. He's particularly excited to discuss one of his most recently-completed projects, the striking National Taichung Theatre in Taiwan.

This vast opera house is a remarkable piece of design and engineering. An incredibly complex, fluid structural system creates dramatically twisting and folding interior forms, designed, in a fashion, to resemble sense organs. This, says Ito, is a building with eyes, a mouth, a nose and ears. An enormous beamless 'sound cave' houses a 2,000-capacity Grand Theatre, a smaller Playhouse and an experimental Black Box venue. Visitors are led through a network of curving vertical and horizontal pathways – walls merging with the floors and ceiling – connecting the

different facilities and linking a city garden at ground level to the rooftop. Outside, the building's striking façade, partly created using a sprayable form of concrete, features cut-out sections that resemble enormous hourglasses.

Ito describes completion of the project, after 11 long years and many false starts, as "a miracle."

"At times I thought this project would never happen," he admits. "We had to stop for almost a year because there was nobody who could actually build it. The three dimensionality of the structure was very difficult to realise, even though the algorithms showed it could be done. Eventually it was actually quite a small company from Taiwan that emerged with the capacity to realise our design."

Abstract shape making is a hallmark of Ito's work – from 2008's hulking, canopy-like Za-Koenji Public Theatre in Tokyo to the recently-completed Museo Internacional del Barroco in Puebla, Mexico, with its elegantly fluted concrete walls that bend and fold like enormous sheets of paper.

While he still sketches all of his initial ideas by hand, these concepts are developed alongside the team in his studio using digital software (although Ito jokingly admits to being barely able to use a computer himself.)



The Za-Koenji Public Theatre in Tokyo

The architect as negotiator

Public buildings have always appealed to Ito, and his office has worked on everything from parks and sculpture gardens to museums, stadiums and a Serpentine Pavilion.

Even when asked to design something as seemingly mundane as an exhaust air outlet for an underground shopping mall – as Ito was in the late 1980s – he sees the potential to create something with a public function. Tokyo's Tower of Winds, completed in 1986, is a 21m-high cylindrical installation filled with 12 neon rings programmed to light up in the evenings. The fluorescent displays reflect the surrounding sound and wind levels.



Ito's National Taichung Theatre in Taiwan is formed largely of curved walls



Officials tend to want to use design to control people in some way

Ito's reputation as an architect of public buildings was truly established in 2001, however, when his 'Mediatheque' for the city of Sendai opened to the public.

Conceived as a cultural hub completely visible to the surrounding community, the transparent glass-fronted structure appears to float from the street. Clearly visible are its 13 vertical steel lattice columns, stretching from ground plane to the roof like enormous trees. Designed to bring vitality and joy to the interior spaces, they create a sculptural link between the floors, whilst doubling as light shafts and storage spaces for the building's utilities. Inside, Ito chose largely to forgo walls, and visitors can roam openly across and between floors.

In the past, he has outlined his belief that when it comes to public projects, "an architect should be a negotiator", responsible for encouraging dialogue and debate between those who will inhabit a building in order to arrive at the right design. This, he tells me, is becoming harder to do, because the people who pull the strings do not want to listen to different perspectives.

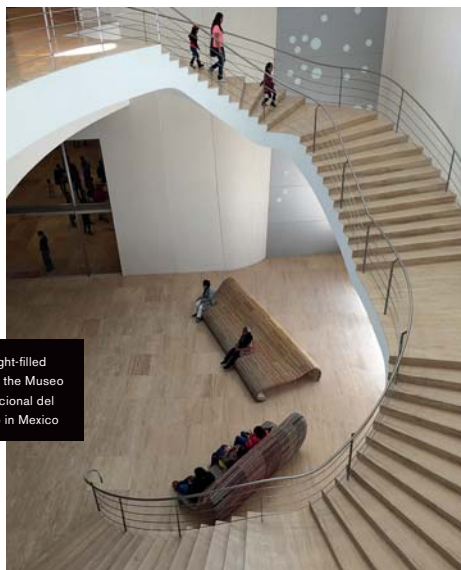
"There is a very common feeling among decision-makers in Japan that new ideas about public space are not needed, and that the types of public buildings we have already are enough," Ito tells me.

"That is a big problem. Especially because the government has a totally different idea about what a public building should be than those who will in fact be using it.

"Officials tend to want to use design to control people in some way. But controlling people who want to enjoy space is not a positive vision for urban planning and design."



Ito with CLADmag contributing editor Kim Megson at the Venice Biennale



The light-filled atrium at the Museo Internacional del Barroco in Mexico

Power, politics and placemaking

Ito is clearly not averse to criticising those in power. When I ask him to name the biggest challenge facing architects today, he solemnly replies: "Politics and money."

He has been particularly critical of the Japanese government's preparation for the 2020 Tokyo Olympic Games; a saga that's been blighted by escalating costs and bitter rows over the design of its key venues.

When the Japan Sports Council announced in 2013 that Zaha Hadid Architects (ZHA) would be designing a new National Stadium for the Olympics, Ito, along with architects such as Fumihiko Maki, Sou Fujimoto and Kengo Kuma, petitioned against the decision due to its vast scale, which they claimed was unsuitable for the leafy, largely residential location by Yoyogi Park. Japanese Prime Minister Shinzo Abe eventually scrapped the project in 2015, claiming the cost had "ballooned too much" after almost doubling to US\$2bn (£1.79bn, £1.52bn). Ito then went head to head with Kuma in a new competition for the project, which he ultimately lost.



"The final contest was very, very political," he says. "It was the same with the competitions for many of the other Olympic facilities. Most of the architects who entered didn't know what was going on. The very big architecture firms used their influence and the projects were decided by politics. It was not a transparent process. I am not at all excited by these Games."

Ito – who previously designed the Main Stadium for the World Games in Taiwan in 2009 using entirely re-useable materials – hasn't given up hope of his Olympic stadium emerging somewhere, in some form, at some time in the future.

Despite being based in Tokyo, these days he prefers to work elsewhere. "The city has become so embedded in the global economy that working there has become a very big money

THE OFFICE THIS PAGE: DESIGN WORKS AND CONSTRUCTION WORKS OF NEW NATIONAL STADIUM JAPAN/TOYO ITO, TAKENAKA, SHIMIZU, OBAYASHI JOINT VENTURE



The New National Stadium designs were a joint venture between Ito, Nihon, Takenaka, Shimizu and Obayashi



The Matsumoto
Performing Arts Centre
opened in Japan in 2004

game," he says. "I find myself more at home working on the smaller islands of Japan."

He has particularly devoted himself to the Home-for-All project; collaborating with a number of other architects to design communal pavilion spaces for survivors of the devastating 2011 Tohoku earthquake and tsunami in Japan. His pavilion on the project at the Venice Biennale in 2012 won him the festival's Golden Lion award.

He has also been busy working on several small projects on the island of Omishima, including a cliffside museum that bears his name. The boat-like black steel building, opened in 2011, showcases diagrams, models and images of his work. A nearby structure called 'Silver Hut' – a recreation of Ito's former 1980s Tokyo home – is used as a workshop for aspiring architects.

"In the beginning, this was not my museum," he explains, "but during construction we talked about how the space could be used to teach people more about architecture, and the client said, 'I don't need this to be my museum, it should be yours.'" Not many living architects can boast their own dedicated museum, but Ito downplays his own influence, particularly on today's generation of designers.

This, despite the fact that luminaries including Kazuyo Sejima and Akihisa Hirata have worked for him at one time or another (a relationship celebrated by the New York Museum of Modern Art's acclaimed 2016 exhibition 'A Japanese Constellation: Toyo Ito, SANAA, and Beyond').

In my studio we all share
the hardship of realising
a building together



The foyer at the Matsumoto Performing Arts Centre

With impeccable timing, Ito's phone rings. It's Kazuyo Sejima, who is also in Venice attending the Biennale and wants to see him. After the call, he admits he is "very happy and proud that so many architects brought up in my studio have been so successful." A smile and a pause. "Even if I sometimes lose competitions to them."

I ask whether his approach to architecture has changed much since he designed his first building – the famous, now demolished, White U house – in 1976.

"The biggest change in my philosophy has been my understanding of nature," he replies. "In the beginning, this was not strong. Over the years, and as I have gained more experience, this has changed. It is now very important in my work."

"In the 20th century, the concept of controlling nature through technology rapidly emerged. Japan followed Europe in this direction. In contemporary Tokyo there are more and more skyscrapers. There's a big discrepancy between architecture and nature. I want this gap to narrow, because we shouldn't be isolated from the environment. People are more at ease in nature than a

The 2013 Pritzker jury described Ito as a "creator of timeless buildings"

The biggest change in my philosophy has been my understanding of nature



The Tama Art
University Library
features a series
of slender arches



The arches were designed to create the sense that the scenery flows through the library

building. Architecture should reflect this, whether it is through creating natural shapes, forms, materials or spatial systems.

"When I start a project now, I may dream of a forest clearing, a silent pool of water or a flowing river," he continues. "This inspires me to design an image, and from there I work out the best way to realise this vision."

Subtle natural references can be found throughout his work. Take the Matsumoto Performing Arts Center, completed four years after the forest-like Sendai Mediatheque.

Ito's biomorphic design features gently curving walls punctuated by randomly placed holes. When daylight enters, it forms patterns on the floor like sunshine through a woodland clearing, or reflections on a sea bed.

Meanwhile, his recent 'Minna no Mori' Gifu Media Cosmos – a vast library and cultural facility in the Japanese city of Gifu – boasts 11 giant globes suspended from the roof. These define the building's different zones for reading, resting and study, but also enhance air flow and allow filtered natural light

to enter. "I thought about how one of the library's users might feel if they were sat beneath a tree canopy, reading a book, enjoying a cool breeze," says Ito. "I have one dream with my work. Architecture should equal nature."

Next up for Ito are a range of projects which include a business school for the Nanyang Technological University in Singapore, which is set to become the largest wooden building in Asia when it is completed in 2021.

At the other end of the scale, Ito hopes to return to Omishima. "Over the next few years, I'd like to live half my life over on the island," he says. "I like to drink sake, and I've built a very small winery there. Last autumn we produced our first wine and this year maybe there will be 1,000 bottles. One day I would like to design a hotel where guests can relax and enjoy the wine."

Surely we couldn't be about to lose one of our most well-regarded architects to the world of hospitality? Ito laughs, and shakes his head firmly. "No, no. I have no plans to retire. There is still much for me to do." ●

Every decision you make,
you should think **seven**
generations ahead

TOSHIKO MORI

The Senegalise Thread Cultural Center architect talks to **Chris DeWolf** about growing up in US-occupied Japan, being a trailblazer and bringing people together

Toshiko Mori describes herself in words that might be considered unflattering if they were uttered by anyone else. "I'm pig-headed," she says. "I'm pretty resilient. I just don't give up."

Of course, those are exactly the qualities one needs to build a lauded architectural practice from the ground up, especially as a Japanese-American woman who started her career at a time when architecture was even whiter and more male-dominated than it is today. Since founding Toshiko Mori Architect in New York in 1981, Mori has designed a diverse suite of buildings, including many leisure facilities that adopt the formal language of modernism, but spoken in a grassroots dialect that values the needs of users and their communities above all else.

What unites Mori's projects is not any particular aesthetic but a shared clarity of purpose. Thread, a cultural centre in an arid part of Senegal, features an undulating thatched roof that shelters a flexible gathering space for the surrounding rural community. The Newspaper Café in Jinhua, China, evokes the country's heritage of communal newspaper displays in its design

for a ramp-like viewing platform for a public park. Mori's design for the visitor centre of Frank Lloyd Wright's Darwin D. Martin House in Buffalo, New York, references Wright's design through an inverted hip roof, but its airy form also quietly challenges the low-slung earthiness of the Martin house. Other projects include the Center for Maine Contemporary Art in Rockland, Maine and New York City theatre, library, and museum projects.

Meanwhile, her portfolio keeps growing, with upcoming projects that include a master plan for an expansion of the Buffalo Botanical Garden in Buffalo, Maine, and a shared venue for 300 New York City independent theatre groups.

When I catch up with Mori, it is during the preview of the 16th Venice Biennale of Architecture, a hectic time when the island city is flooded by a globe-trotting array of architects, cultural tastemakers and the journalists who write about them.

Mori is featured in Time-Space-Existence, an exhibition that documents the work of a hundred global architects, but she also took part in a flash mob of female architects that protested against discrimination in architecture. "This is just the beginning," said Mori at the protest. "Now we can connect with people all over the world. That makes us strong."

Mori admits that, even though she was a trailblazer for women in architecture, that's not how she saw her career as she worked to establish herself. "I never really thought of it in that way," she says. "Being an architect is challenging enough."



Born in Kobe, Japan and later growing up in New York, Mori has become a trailblazer for women in architecture around the world

'This is just the beginning'

Born in Kobe, Japan, in 1951, Mori grew up in a country under American occupation, still reeling from the destruction of World War II. Food was scarce and her family grew vegetables and raised chickens in their yard. Her family owned their land, which enabled her father – an international trader – to rebuild their house, working with contractors to create an open-plan structure flooded with light, surrounded by a wraparound terrace and a large garden.

Mori recalls it was not a very traditional house, and perhaps it planted the seed for her future career in architecture. But it was another experience that left an even more lasting impression. One day, Mori's father took the family to see Kenzo Tange's Hiroshima Peace Memorial, a simple modernist structure that frames a view of the Genbaku Dome, the only building left standing near the hypocentre of the nuclear blast that killed 140,000 people.


"When you're talking about nuclear holocaust, it's very abstract," Mori told the Harvard Gazette earlier this year. "But I have a visceral memory of exactly what a nuclear bomb does and what human beings, what children will look like when this takes place, so this was a very significant experience for me."

Mori liked to draw, and she continued making art after her family moved to New York when she was 14 years-old.

Her new school didn't have a strong art programme, so her father suggested she sign up for a summer course. She found one that took her to Paris and Florence. She was fascinated by the way Renaissance creators blended art and science together, and when one of her instructors introduced her to a dean at the School of Art at Cooper Union, she made up her mind: she wanted to study art.

Her studies took her from sculpture to architecture, which she loved for its collaborative nature. She admired Le Corbusier and Mies van der Rohe, but also Alvar Aalto, the Finnish modernist whose work was particularly sensitive to its natural surroundings. As she continued her studies under the tutelage of Cooper Union dean John Hejduk, Mori served as a translator for Tadao Ando, and her drawing skills earned her a position as a drafter with Japanese landscape architect Isamu Noguchi, where she came into contact with Noguchi's frequent collaborator, Buckminster Fuller.

Mori worked for a couple of established firms after her graduation, including Edward Larrabee Barnes Associates, but from the beginning she had her eyes set on running her own architectural practice. She was 30 years old when she established Toshiko Mori Architect.



Mori's design for the airy visitor centre of Frank Lloyd Wright's Darwin D. Martin House in Buffalo, New York

PHOTO: ALAN WATKINS/MARTIN & PAUL VAN NICHTEL



The Thread cultural centre in Senegal serves as a strong community hub for 12 tribes in the surrounding desert location



PHOTOGRAPHY: TIAN WANG

Thread's undulating thatched roof forms a cohesive shelter and community space

A THREAD THROUGH A DESERT COMMUNITY

Twelve tribes share Thread, a cultural centre in the isolated desert town of Sinthian, near Senegal's border with Mauritania. Surrounded by existing community facilities such as a kindergarten, a clinic, an agricultural cooperative and a women's centre, Thread offers space for residents to gather and stage events. There's also a library, a residency space for visiting artists and charging stations for mobile phones.

Mori designed the building to make use of local materials and building techniques, with a thatched roof and a structure made of compressed earth. A group of 35 local workers built the centre over the course of a year. Mori

paired the vernacular materials with parametric design to create a roof that curves up and over a central gathering space, enclosing workshop rooms while channelling the area's often stagnant air to create a refreshing breeze. Parts of the roof act as reservoirs that catch rainwater, distributing it to the surroundings through a series of canals.

The combination of local materials with a dramatic form has created a beguiling structure. "I wanted to give it an iconic presence, but I didn't want to impose an icon," says Mori. The centre opened in 2015 and won an American Institute of Architects Honor Award in 2017.



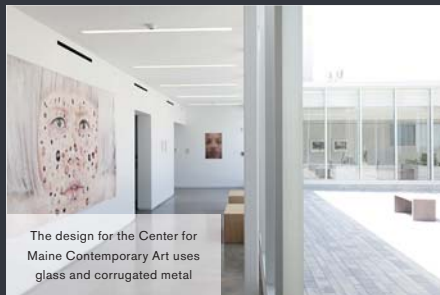
The Center for Maine Contemporary Art

PHOTO COURTESY OF THE CENTER FOR MAINE CONTEMPORARY ART

DRAWING FROM MARITIME HERITAGE

When she was commissioned to design a new home for the Center for Maine Contemporary Art in the seaside town of Rockland, Maine, Mori noticed the contrast between the red brick commercial buildings of the town centre and the more utilitarian industrial architecture of its waterfront. She decided to pay homage to the latter through a structure made of glass and corrugated metal.

Galleries and educational spaces wrap around a central courtyard – “like an open embrace,” according to the museum’s promotional material – with a façade made of corrugated metal and glass that is at once understated and expressive. “It’s a museum but it’s not an ivory tower,” says Mori. “It’s embedded in the community” The museum opened in 2016.



The design for the Center for Maine Contemporary Art uses glass and corrugated metal

At Cooper Union, Mori’s thesis was called Places of Transaction, which examined the typology of markets. That continued to influence her approach to design. She wasn’t interested in formalism, or designing high-rises; “I got that out of my system” when she worked for the big firms, she says. Instead, she wanted to create places that brought people together.

“I always think of a project, what kind of value does it offer?” she says. Though markets are places of commercial transactions, they also promote social cohesion by enabling other kinds of exchanges – namely a space for a community to express itself. Mori says that considering that kind of social impact should be an integral part of any project. She points to a value shared by many Indigenous cultures in North America: “Every single decision you make, you should think seven generations ahead,” she says.

Her process reflects that commitment. Even as architecture becomes increasingly digital, Mori continues to draw by hand. “[It creates] an immediate relationship between human beings,” she says in the video for Time-Space-Existence. “When I go to the world, 90 percent of places don’t have computers. So, to be able to interact with people, you have to draw. And then people can draw back. It’s still a universal language. Even if you are good with computers, if you really don’t know how to draw by hand you really don’t know what you’re looking at.”

“Architecture is a product of a dialogue,” Mori continues. “There are two qualities necessary for good dialogue – listening and observation.”

When she was working on the visitor centre of Frank Lloyd Wright’s Darwin D. Martin House in Buffalo, New York, Mori



The Newspaper Cafe in Jinhua Architecture Park, China

PHOTO COURTESY OF JINHUA ARCHITECTURE PARK

BRINGING LIFE TO A MUSEUM'S ROOF

Mori's canopy at the Brooklyn Children's Museum has created an unobstructed space for community events and gatherings

PHOTOS: THE CANOPY



When architect Rafael Viñoly completed a thorough renovation of the century-old Brooklyn Children's Museum in 2008, he created a rooftop terrace enclosed by curved yellow walls designed to create a playful space. But it took a decade of fundraising for the museum to make the space fully functional and permanently open to the public.

Mori was crucial in making that happen. In 2015, she designed a canopy made from arched steel and weather-resistant, transparent Etfe cladding. The canopy's 678-metre span creates an unobstructed space for events and gatherings that can be used in the spring, summer and autumn. "In the warmer months it is booked every day," says Mori.

was reportedly less concerned with the architectural details of the Martin house than she was with Wright's interest in transcendentalism, which led her to design a series of skylights that bring natural light into the centre's underground galleries. It's an illustration of the way Mori's work has always drawn from influences beyond architecture; she is a keen reader, and before she went to art school, she thought she might want to dedicate herself to Japanese literature.

Today, that wide-ranging curiosity manifests itself in a concern for architectural ethics: the idea that designers must be responsible for the impact their work will have on the environment, human rights and social inclusion.

Mori says she struggled to promote these ideas when she was first starting out. "I was fighting," she says. Architects at the time were concerned with form more than anything else. But things have changed, and Mori says the students she teaches at Harvard's architecture school are more conscientious than ever before. Many of them aspire to serve underprivileged communities rather than work for big firms. "That was unimaginable 20 years ago," she says.

She has also become concerned with the representation of women in architecture. Although women now make up a majority of students in many American architecture schools, the proportion plummets when they enter the workforce, and only a small fraction of architectural leaders – prize-winners, school heads and firm directors, for instance – are women.

Mori blames the low pay and inflexible, high-pressure working environment of many architectural practices. She says she tries to create a friendly atmosphere at her own office, with as few overtime commitments as possible. Perhaps not

Drawing is still a universal language

coincidentally, a majority of her designers are women. "It wasn't planned – it just happened," she says.

What's next

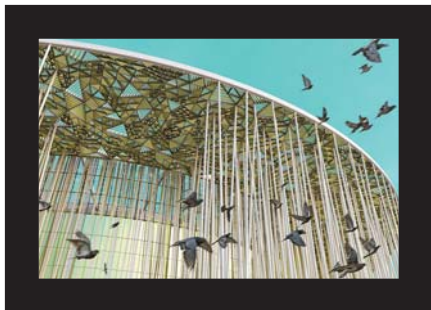
The Buffalo Botanical Garden in New York will soon announce its plans for the future, three years after Mori and her firm were chosen to draw up a master plan for the historic green space, which was designed by renowned landscape architect Frederick Law Olmsted in the 1880s. Mori can't say much until the official announcement, but she does reveal that the plan includes an extension of the garden's glass-domed conservatory.

Meanwhile, she is finishing work on a new home for the Alliance of Resident Theatres, that represents 300 independent theatre companies in New York. "It has to be flexible," says Mori. The theatre is part of a private residential project; the developer received a FAR bonus in exchange for building it. The facility includes a flexible black box space with room for 87 spectators and a warehouse-style space seating up to 149 people. With many different companies sharing the space, Mori opted for a low-key, utilitarian approach.

With a growing portfolio and some intriguing projects on the horizon, Mori is excited about the future. It turns out that being pig-headed has its benefits. ●

Steven Chilton Architects reveal designs for the Wuxi Show Theatre in China

**Nature has inspired this dramatic theatre
in southern China, finds Andrew Manns**



The slender white columns were inspired by indigenous bamboo forests



IMAGES COURTESY OF STEVEN CHILTON ARCHITECTS

London based practice Steven Chilton Architects (SCA) were inspired by one of China's largest bamboo forest in the design of the 2,000-person capacity Wuxi Show Theatre in Wuxi, China.

The theatre uses tightly packed white columns – inspired by the bamboo forest in the Sea of Bamboo national park in Yixing – and a canopy made from gold anodised aluminium louvers – to simulate the appearance of dense undergrowth.

According to SCA, at night the "building envelope is illuminated from below, becoming an ethereal beacon, glimpsed between the forest of 'bamboo' columns, drawing spectators and audiences in from across the lake and surrounding development."

Set to open in 2019, the building will accommodate *The House of Dancing Water*, a water show by Belgian stage director Franco Dragone.

Steven Chilton speaks to CLAD about the inspirations behind the design.

What do you see as the most structurally challenging aspect of the Wuxi Theatre project?

Our primary goal was to keep the columns as slender as possible; the aesthetic success of the project would be severely compromised if we failed in this regard.

We set out to fully support the shade canopy with the forest of columns, however, due to time constraints with the build, it became necessary for it to be largely self-supporting. Consequently, the columns are not required to work as hard, which has allowed us to reduce their diameter to 300mm – something of an achievement given they are 33m in length.

Can you tell us more about how the team employed 'swarm intelligence' for this project?

To choose the final columns distribution we had to consider many factors, including the minimum free distance needed for each column, the ground floor boundaries, security routes and our desire to maximise the covering effect of the facade behind.

Due to the complexity of the problem we chose to code an emerging multi-agent system that would allow us to optimise all



The columns will be backlit at night

these input parameters. Starting from Craig Reynolds' Boids simulation we added some boundary constraints in order to respect the usable area requested and guarantee the creation of safe routes.

Then we added a specific feature to optimise the general distribution and increase the overall covering effect of the columns. For each simulation frame, the system evaluates the visual permeability and each agent moves the associated column with the goal of reducing this global parameter.

Why did you decide to use white columns?

Our client is interested in creating architecture with a broad appeal and is attracted to concepts that embody recognisable elements of local culture. Our challenge, as architects interested in modern, minimalist, generative design, has been to find an approach that delivers the essence of a local cultural reference without mimicking it.

We purposefully seek to avoid designing in the mannered, literal sense, instead favouring an approach to materials and structure that seeks to identify geometries and combinations that hold the potential to abstractly evoke the central theme. This generative approach to design enables us to build in

THE TEAM

Building Façade and Canopies Architect: Steven Chilton Architects
Client: Sunac China Holdings Ltd.
Theatre Consultant: Auerbach Pollock Friedlander
Show Design: Dragone
LDI: Tongji Architectural Design
Bamboo Concept: Steven Chilton at Stufish
Canopies Concept Engineer: Buro Happold Engineering

factors such as structural efficiency, repetition of nodal geometry and the reduction of material waste.

In the best instances it leads to abstract effects that are more resonant with the central theme because we employed these various optimisations.

The distribution and orientation of the louvres in the shade canopy are a good example of this. The organic sense of randomness we've achieved is largely the result of a variety of parameters that were fed into the algorithm to maximise material efficiency and the distribution of reflected light and to ensure year-round shade over the curtain wall.

What do you expect to be the most impressive element of the theatre?

We hope visitors and users will enjoy the experience of moving through the forest of columns and will consciously (or unconsciously) appreciate the simplicity and efficiency of the architecture that surrounds them.

Certainly, at night, the theatre should be a magical place to be. We've taken a simple approach to the lighting whereby the columns are mostly backlit. We hope this will give the structure an iridescent, lantern-like quality. ●

Kim Herforth Nielsen

From the Blue Planet aquarium in Copenhagen to a new home for Sydney's Fish Market, 3XN design buildings that aim to inspire positive behaviour in the people that use them, founder Kim Herforth Nielsen tells **Magali Robathan**

For 3XN founder Kim Herforth Nielsen, his buildings will always take second place to the people who inhabit them.

All of 3XN's work starts from one core belief: that architecture has the power to create and shape behaviour. The buildings Nielsen designs are just the setting for whatever is going to take place in them, he tells me, and the form comes about because he has learned that if he creates buildings in a certain way, that will encourage users to respond in positive ways.


"We believe that architecture has extraordinary power, and always try to design buildings that positively influence the behaviour of the people who inhabit them," he says. "We want our buildings to encourage their users to feel good and use them in positive ways. Likewise, a good building plays a similar role in the fabric of the city.

"Architecture can get people talking. Architecture can facilitate learning. It can make passive people more active. Architecture can encourage people to find new paths, meet new people, have different conversations and discover new aspects of their environments – and of themselves."

This approach has resulted in a series of varied and interesting buildings, which include the Blue Planet national aquarium in Copenhagen, Denmark; the Muziekgebouw Concert Hall in Amsterdam, the Netherlands; the Museum of Liverpool in the UK; and the Plassen Cultural Center in Molde, Norway.

In February 2017, the 35,000sq ft 3XN-designed Royal Arena opened in Copenhagen with four sold out concerts by Metallica. Unlike many international arenas, the Royal Arena sits within the city, and was designed around the idea of being a 'good neighbour' to the surrounding buildings and the local community. The stadium has been designed in a way that encourages the community to use the public spaces, staircase, small plazas and gathering spaces outside the wooden-clad building, promoting life and activity when the venue isn't being used.

Looking ahead, 3XN are working on a wide range of projects, including a new building for the Sydney Fish Market; a mixed use tower in Sydney featuring offices and leisure facilities; an educational climate centre on the west coast of Denmark; a new arena and masterplan in Bergen, Norway; and a new headquarters for the International Olympic Committee in Lausanne, Switzerland.

A portrait of Kim Herforth Nielsen, a middle-aged man with short, graying hair, smiling at the camera. He is wearing a black button-down shirt, a black blazer, and a long, patterned scarf with a black and white herringbone design. His hands are in his pockets. The background is a plain, light gray.

Kim Herforth Nielsen
founded 3XN in 1986 with
Lars Frank Nielsen and Hans
Peter Svendler Nielsen

I ALWAYS
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,

IT'S PREDICTED TO ATTRACT EIGHT MILLION PEOPLE A YEAR,

I meet Nielsen in Venice, a city he holds up as an example of good design. "It's a very liveable city," he says. "It has plazas for pedestrians, lots of water of course, and also lots of bridges. The diversity lies in the differences between the small lanes and bigger plazas – diversity is key in creating a good place.

"When you think about creating a building, you have to see what works in a city, and what works in the wider world," he continues.

Kim Herforth Nielsen launched his practice in Aarhus, Denmark in 1986 with Lars Frank Nielsen and Hans Peter Svendler Nielsen as Nielsen, Nielsen and Nielsen (later changed to 3 X Nielsen, and then 3XN). Both of the other Niensens have now left, and Kim Herforth Nielsen owns the practice, together with senior partners Jan Ammundsen, Jeanette Hansen, Kasper Guldager Jensen and Audun Opdal. They have offices in Copenhagen, New York, Sydney and Stockholm.

I ask Nielsen if his approach to architecture has changed since those early days.

"I always wanted to do more than just designing buildings," he says. "In reality the fact of just designing a building is somewhat boring. It's what the building can do for people that I find exciting.

"As architects, of course we enjoy creating a beautiful form, but only if that form has meaning. Designing form for form's sake doesn't work for us. The work has to have a deeper purpose."

ENCOURAGING INTERACTION

If you think about how you would like people to behave inside your buildings, the form almost designs itself, Nielsen tells me.

Staircases, for example, often play a prominent role in 3XN's buildings, and Nielsen is a big believer in their role in encouraging people to meet and interact.

In the 3XN-designed Plassen Cultural Center in Norway, a wide staircase doubles as an outdoor arena, with planned and unplanned activities taking part on its steps. Sweeping dramatic



3XN recently unveiled designs for the new Sydney Fish Market. It features an open front and undulating roof

THAT'S THE SAME NUMBER AS THE SYDNEY OPERA HOUSE

staircases have been designed to encourage interaction at the Museum of Liverpool in the UK and at the UN City headquarters in Copenhagen.

At experimental high school Ørestad College – also in Copenhagen – the building rotates around the large central staircase, which was conceived as a kind of 'catwalk' or town square, and only disabled students with a special key card have access to the elevator.

SYDNEY FISH MARKET

Last summer, 3XN were announced as the winners of an international competition to design a new home for Sydney's iconic Fish Market, with the aim of creating a vibrant food and dining destination for tourists and the local community.

The new Fish Market building will be located by a park and on the waterfront at Blackwattle Bay on Sydney's inner harbour, and will house a variety of restaurants, cafes, bars and food stalls, as well as the market itself.

"We're excited about this project," says Nielsen. "It's so much more than a market. It will be a place for leisure, an iconic destination that's predicted to attract eight million people a year. That's the same number as the Sydney Opera House."

3XN and its green innovation arm GXN approached the project from the inside out, says Nielsen, with a careful analysis of the site, the area and the surrounding community.

"Instead of designing the building first, we started by thinking about the market and all of the qualities it could give to the area," he says. "We then designed the building around that."

GREEN TECHNOLOGY

Sustainability has always been at the heart of 3XN's work. In 2007, they set up research and innovation arm GXN (the G stands for green) to work on researching, creating and implementing new sustainable materials and technologies. The core goal of the division, explains Nielsen, is



to develop a sustainable building culture that positively affects the world we live in.

"We started GXN because we realised we were only following what was on the shelf in the building market, and we thought it was more interesting to be at the forefront with new materials and technologies," he says.

"It's developed to be a lot more; it's about new software, new techniques, artificial intelligence, robots, research into how design affects behaviour. We're interested in anything new that influences how we design buildings."

Partnering with a range of experts across various industries, GXN has designed products including the Gotham Luminaire streetlamps, which use the latest solar cell and lighting technology to produce more energy than they use, and the 'world's first self-supporting biocomposite façade panel', which they created with Arup and which won the 2015 JEC Innovation Award in the construction category.



The Royal Arena in Copenhagen was designed to be a "good neighbour" says Herforth Nielsen

WE'RE LOOKING AT HOW WE CAN CREATE BUILDINGS THAT HAVE NO WASTE WHEN YOU COME TO DEMOLISH THEM

They are currently working on a range of products, including the development of green roofs and façades that use local species of greenery instead of sedum shipped in from overseas. The division is also looking into how waste from the food industry can be turned into building materials ("like potato peel into fluorine materials or tomato stems into building boards").

I ask Nielsen whether he is optimistic or pessimistic about the future for the planet.

"Humans have always been very innovative," he says, "but we are lazy too. If there's a lot of oil, we'll use a lot of oil. If there's no more oil, we'll cope with that and do things in a different way."

"The building industry is a very conservative industry – they'll say 'we have to use bricks, because we've always used bricks,' we have to use concrete elements because this is how contractors work". In the future they will have to work in different ways, and they will learn to do so. In that sense, I'm optimistic, and quite excited to see how they will move forward. As architects, we



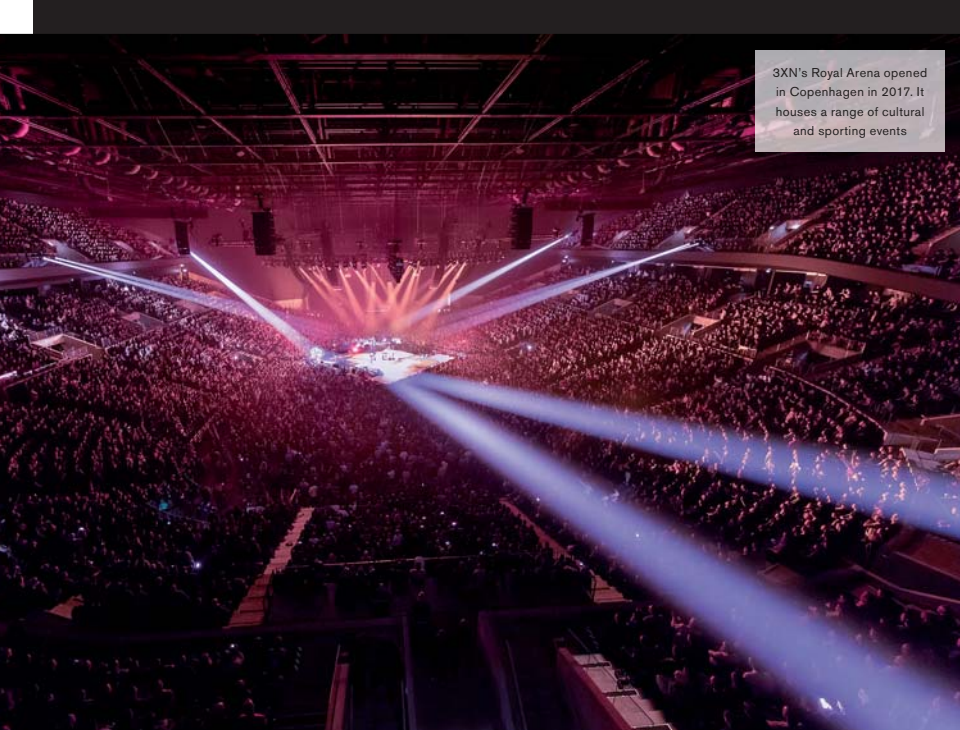
ABOUT 3XN

The studio was founded in Aarhus, Denmark in 1986 by young architects Kim Herforth Nielsen, Lars Frank Nielsen and Hans Peter Svendler Nielsen.

Kim Herforth Nielsen nows owns 3XN, together with senior partners Jan Amundsen, Jeanette Hansen, Kasper Guldager Jensen and Audun Opdal. The practice has offices in Copenhagen, New York, Sydney and Stockholm.

In 2007, 3XN established the innovation unit GXN to collect and apply the latest knowledge on behaviour materials and new technologies to their architecture.





3XN's Royal Arena opened in Copenhagen in 2017. It houses a range of cultural and sporting events

have to push them though. The building industry isn't moving anywhere if it doesn't have to."

Much of GXN's work focuses on the idea of a circular economy – a move away from a throwaway building industry to a future in which buildings are designed and constructed so that they can be dismantled and their materials reused.

"We're looking at how we can create buildings that have no waste when you have to demolish them, so when they come to the end of their lives, we take them apart and use all their different parts in a new building," says Nielsen.

A NEW WAY OF BUILDING

3XN's other major project in Sydney, the mixed use Quay Quarter Tower, is a good example of this approach. The 49-storey, 200m tower – which is being developed as part of the A\$2bn (\$1.54bn) Quay Quarter Sydney project being undertaken by investment house AMP Capital – will offer office space, shops, bars and restaurant facilities.



The Aqualuna residential complex will sit on Toronto's waterfront



The design of the new HQ for the International Olympic Committee was inspired by the movement of athletes

IMAGET © 2018 POEBIS MASSIER



Quay Quarter Tower in Sydney reuses around two thirds of the existing structure to create the new building

Instead of demolishing AMP Capital's existing building, around two thirds of it will be retained and redesigned, while the materials from the demolished third will be reused in the new design.

"We're pulling part of the tower down but building around the existing core, resulting in a building that will double the square metres and look entirely new," says Nielsen. "This way it will be very sustainable and will also save a lot of resources and money on construction costs.

"To my knowledge, this is the first time it's been done on this scale; keeping an existing high rise building and making a new building out of that.

"I love challenges and constraints," adds Nielsen. "The more we have, the more we have to be innovative, and think of new solutions. And out of that comes more interesting buildings."

LOOKING AHEAD

Other ongoing 3XN leisure projects include the Grow Hotel in Stockholm; the Grognon cultural complex in Namur, Belgium; and La Defense hotel and office in Paris, France.

Meanwhile Olympic House, a new headquarters for the International Olympic Committee, is taking shape on the shores of Lake Geneva in Lausanne, Switzerland.

The new building will bring together up to 600 IOC employees, currently working in offices around the city, and will feature a surrounding park and campus. The building will include a green roof and terraces and a fitness centre.

I LOVE CHALLENGES AND CONSTRAINTS. THE MORE WE HAVE, THE MORE WE HAVE TO BE INNOVATIVE

The building's form was inspired by the idea of the movement of an Olympic athlete, while the central circular staircases echo the Olympic rings.

"The IOC is all about movement, so our idea was to make an open, sustainable building that shows the idea of movement in its form," says Nielsen.

"The philosophy of the IOC under its president Thomas Bach is all about openness, so they wanted a very transparent building," he continues. "You might have expected big fences around it, but the façade is permeable, and the public can walk right up and look into the building."

Olympic House is due to open in summer 2019.

As with all of 3XN's projects, sustainability is key, and the effect of the design on the people who will use the building has been considered right from the outset.

"It's about using your brain when you're designing," says Nielsen.

"It's about creating buildings that are attractive for the people that use them, but that aren't just about the way they look. They must perform well, they must engage with their surroundings, they should bring out the best in people and foster positive cultural change."



The Blue Planet takes its inspiration from the movement of the sea. It opened in 2013

The Blue Planet

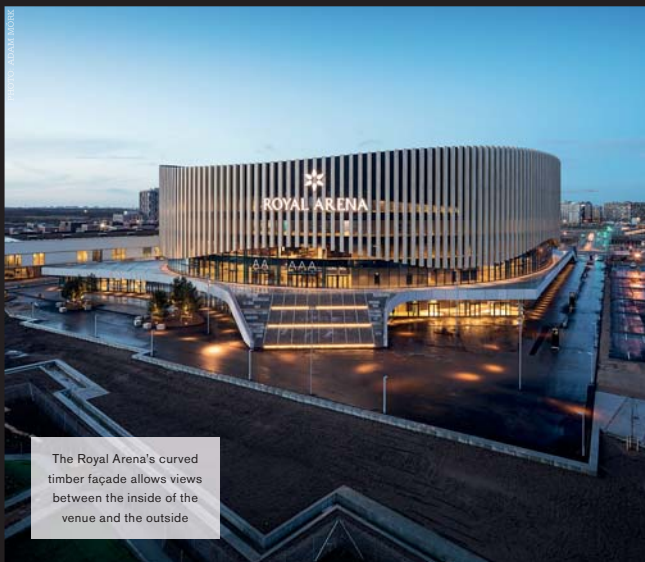
COPENHAGEN, DENMARK

The Blue Planet Danish national aquarium opened in Copenhagen in 2013. Inspired by the sea, it is shaped like a gigantic whirlpool, clearly visible for travellers arriving by plane at the nearby Copenhagen Airport. The façade is covered in small diamond-shaped aluminium plates, which adapt to the building's organic form and – like water – mirror the colours and light of the sky, giving the building an ever-changing expression.

Royal Arena

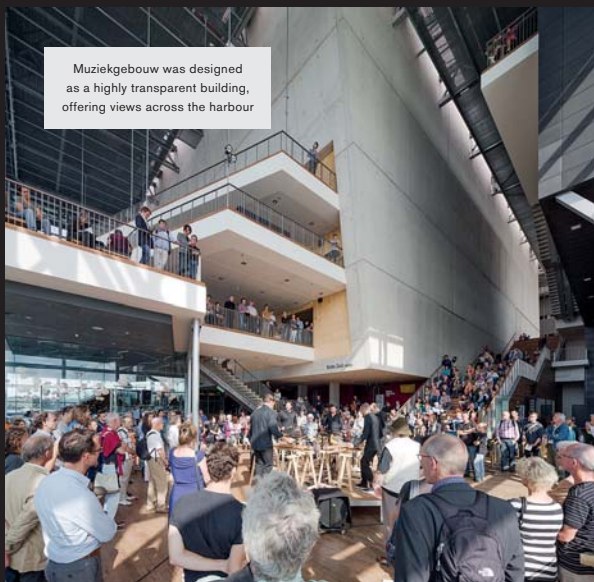
COPENHAGEN, DENMARK

Copenhagen's 35,000 m² Royal Arena opened in February 2017 with four sold out concerts by Metallica. Specially designed for concerts and international level sporting events, this new venue combines two key ambitions: to create an attractive and highly flexible multi-purpose arena that can attract spectators locally as well as internationally, while ensuring that the building's presence will be a catalyst for growth for the entire district as well as Copenhagen. With a podium that offers different public areas for social meetings and daily activities with a warm timber façade allowing spectators to look out and the curious to look in, the arena is designed to catalyse urban life, thereby adding value and fitting into the surrounding neighbourhood.



The Royal Arena's curved timber façade allows views between the inside of the venue and the outside

Muziekgebouw was designed as a highly transparent building, offering views across the harbour



Muziekgebouw

AMSTERDAM,
THE NETHERLANDS

The Muziekgebouw concert hall opened in Amsterdam in 2005. Designed by 3XN, it provided new shared premises for two well-established professional musical institutions; the IJsreker and the BIMhuis. It's all about music, providing two concert venues for contemporary classical and contemporary jazz music.

Positioned as a landmark at the tip of the Oosterlijke Handelskade pier, it is a catalyst for change in its neighbourhood. It is a building designed to attract public life and allow open flow through the day and night, independent of musical programming.

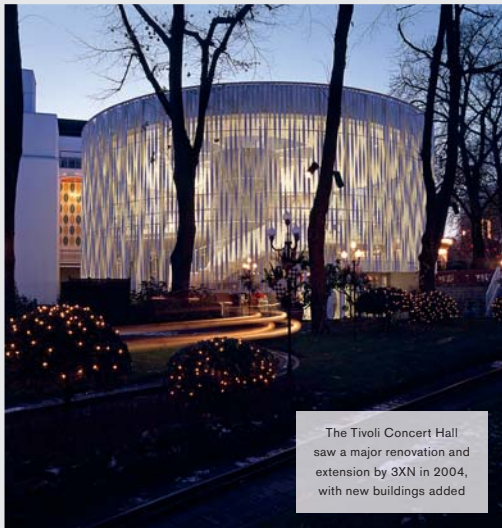
Tivoli Concert Hall

COPENHAGEN, DENMARK

In 2004 3XN won the restoration of the Tivoli Concert Hall and a number of new buildings in the famous amusement garden.

The concert hall was carefully restored and improved in order to live up to modern requirements for stage space, space for orchestra, acoustics and seating comfort. In addition to the concert hall, 3XN designed a new circular foyer on three floors with lounge and bar overlooking the Tivoli Gardens and cafe with outdoor seating.

The façade has white lacquered, twisted aluminum strings that capture and reflect the sun and Tivoli's many lamps at night. The pattern on the façade is also reminiscent of the classic Harlequin pattern found many places in Tivoli. ●



The Tivoli Concert Hall saw a major renovation and extension by 3XN in 2004, with new buildings added

V&A DUNDEE

As the highly anticipated £80m V&A Dundee finally opens to the public, **Magali Robathan** hears the story behind the building

It stands on the banks of the River Tay, as craggy and dramatic as the Scottish cliff faces that inspired it. One of the most anticipated buildings of the year, the £80m V&A Dundee finally opened in mid September amid huge fanfare.

Several years late and wildly over budget, Kengo Kuma's building needed to make its mark on Dundee, and it's certainly done that.

It's a monumental, complex building, with walls that curve both horizontally and vertically, constructed from huge slabs of precast concrete. Inspired by the wild landscape of Scotland's north-eastern coastline, the building is created from two inverted pyramids that join at the upper levels, creating an archway that acts as a frame through which visitors can see the city from the river and vice versa.

"The building acts as a connector between the river and the city," said Kuma, explaining his vision for the project. "Dundee was a city built on trade and the river played a vital role. The building acts like a gate through which the city can once again access the world."

As well as being one of the most high profile public buildings to open in the UK in recent years, it's the first V&A building to open outside London, and Kengo Kuma's first UK building.

"I hope the museum can change the city and become its centre of gravity," said Kuma. "I'm delighted and proud that this is my first building in the UK."

Visitors enter the museum through the large, light-filled main hall conceived as a welcoming public space – or "new living room for the city," in Kuma's words – for the people of Dundee, featuring a cafe, shop



Kuma won the competition to design the V&A's Dundee outpost in 2010



WHO DID WHAT

Architect: **Kengo Kuma**

Project architect: **Maurizio Mucciola**

Client: **Dundee City Council**

Engineers: **Arup**

Main contractor: **BAM Construct UK**

Project manager: **Turner and Townsend**

The Scottish Design Galleries feature around 300 exhibits telling the story of Scottish design



PHOTO: THIS SPREAD: SHUTTERSTOCK + CREW

and other visitor facilities. Here the sloped walls are lined with oak panels rather than concrete, giving a lighter, warmer feel.

A central foyer on the first floor leads to the museum's 1,100sq m temporary gallery, and the permanent Scottish Design Galleries, which tell the story of Scotland's design heritage through a collection of 300 objects.

Kengo Kuma has said he is "especially proud" of the Oak Room, which stands at the heart of the Scottish Design Galleries. The interior of Charles Rennie Mackintosh's original 1907 Ingram Street Tearooms has been painstakingly conserved and rebuilt, allowing the public to see it for the first time since it was removed from the original building in 1971.

"There's an aesthetic of simplicity and transparency that Mackintosh and Japanese culture have in common," said Kuma. "His work

taught me that transparency could be achieved in architecture using natural materials. In the Oak Room, people will feel his sensibility and respect for nature, and hopefully connect it with our design for V&A Dundee."

Of his starting point with V&A Dundee, Kuma said: "My inspiration always starts from the place where the project will be. The uniqueness of this project is in the position between the water and the city – it's very different from a normal site as it sits between land and water.

"As we started to think about the project, one of my colleagues showed me a picture of the cliffs of north eastern Scotland – it's as if the earth and water had a long conversation and finally created this stunning shape. The design of V&A Dundee attempts to translate this geographical uniqueness into the building by creating an artificial cliff."



PHOTO: GIAN SCHENKE

Kengo Kuma asked Mucciola to lead the design team on the V&A Dundee project

Museums today should be more than just exhibition galleries; they should be true public spaces for our cities

Project architect Maurizio Mucciola talks us through the highs and lows of this challenging project

How did you get involved with V&A Dundee?

At the time of the competition in 2010, I was working as project architect at Kengo Kuma & Associates in Tokyo. When the practice was shortlisted for the design competition, Kengo Kuma wanted me to lead the design team for V&A Dundee.

I visited Dundee for the first time with Kengo Kuma in June 2010 and we were both impressed by the stunning setting and the view from the project site across the river estuary.

Kuma was very interested in the project – as we all were – so we put together a very strong team to develop the competition proposal. Our design was selected as the winner in the autumn of 2010.

What was your aim with the project?

Our initial brief was to create a design able to re-connect the city and the river. This was the focus of all our design choices.

One of the most important features of the design is the void we created, allowing visitors to literally walk through the building. This void frames the view of the river from the city and invites people to walk to the riverside. In this way we aimed to use the void as a means of creating a new connection between the city and the river.

It was also very important for us to create a museum as public space. We strongly believe that museums today should be more than just exhibition galleries; they should be true public spaces for our cities.

With this in mind, we conceived the main hall as an interior piazza. We wanted to re-create the qualities of a public space where people can go to relax, enjoy a drink or just sit on a bench. I hope visitors will feel welcome in the building and will use it naturally as part of Dundee's public space.

How did the surroundings influence the design?

We wanted to create a very organic relationship between the building and the water; this led us to develop the unique shape of the building which naturally sits on the river and the shallow reflective ponds. We also got inspiration from the beautiful Scottish landscape, especially from the rugged cliffs of north eastern Scotland.

The shape of the building's façade, which avoids straight vertical walls, was designed to create semi-covered spaces under the inclined walls. We refer to these as 'in-between spaces' and they work as filter zones between outside and inside, creating a friendly and inviting space for the museum.

The building's façade is made up of almost 2,500 precast concrete panels



For many of us involved in V&A Dundee it was the most complicated project we have ever worked on

How closely did you work with Kengo Kuma?

I have worked closely with Kengo Kuma for 10 years – eight in his practice, in Tokyo and then in his Paris office – and then from London as a sub-consultant with PIM.studio, the practice I founded in 2016 with Maria-Chiara Piccinelli.

My experience working with Kuma has always been very positive, both on a professional and personal level. I have learned a lot from my experience working with him, most importantly the ability to transform challenges into positive opportunities through design.

Can you tell us about the materials used in V&A Dundee?

For the external façade we used an exposed in-situ dark concrete wall as background for the precast cladding panels which have a much lighter colour.

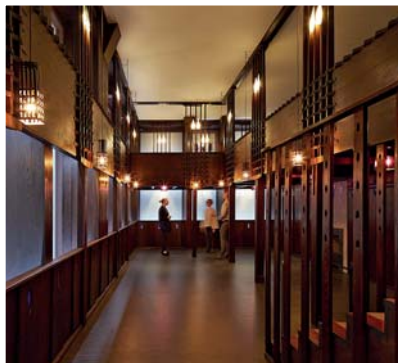
During the early competition stage we looked at using a local stone, but this wasn't available, and we decided to create a new material for the project. The texture we designed for the façade panels is very rough; with the intention of creating variation and avoiding uniformity. It will also age naturally and beautifully.

The almost 2,500 precast panels for the façade are all different as they need to adapt to the curvature of the background wall, and this was a major challenge. Together with our consultants and with the contractors, we needed to develop



The large, light-filled atrium features wooden panels and limestone flooring





Charles Rennie Mackintosh's Oak Room has been painstakingly restored, after being in storage since 1971

a solution to manufacture and install the panels efficiently, while retaining the variation and randomness of the design.

For the interior of the project we wanted to create a contrast with the strong mineral appearance of the external façade, and so we choose warm and natural materials including wood and a beautiful Irish limestone floor for the main public spaces.

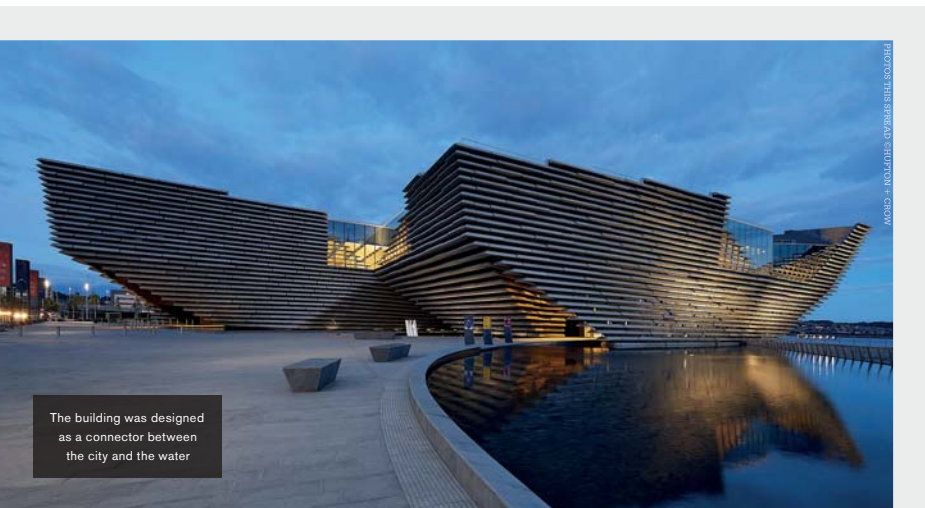
Do you think the initial vision has been realised?
Did you have to make any compromises?

The initial vision has been realised and possibly improved on.

Our attitude has always been to try to transform challenges into opportunities to improve the design rather than to compromise. The most obvious example in V&A Dundee was when we decided to 'move' the building from being completely in the river to partially on land. We managed to retain the original relation between the building and the city and the important alignment of the public entrance, the void and the access from the city centre; at the same time the new location benefits from being closer to the city and more integrated within the urban fabric.

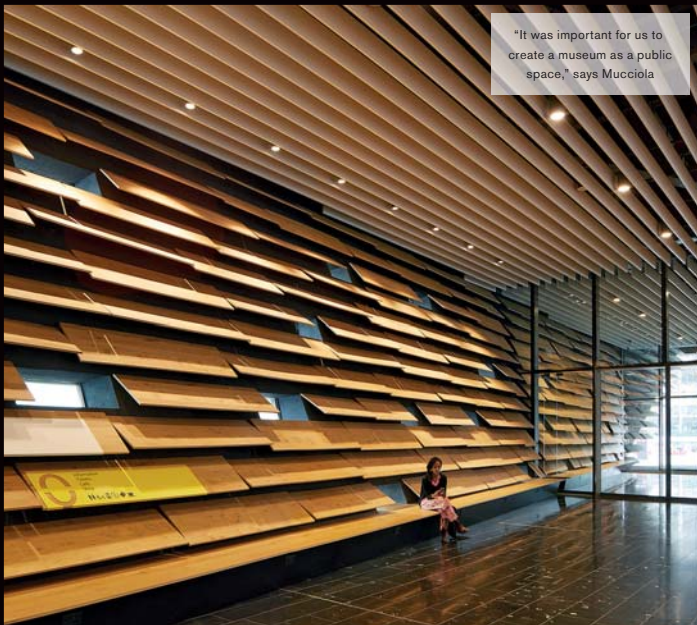
What were the biggest challenges of this project?

This was a complex building with many challenging aspects in the way it had to be built. For many of us involved it was the most complicated project we have ever worked on.



The building was designed as a connector between the city and the water

AVOID + MCKINLEY ARCHITECTS © STEVE HOLGATE



"It was important for us to create a museum as a public space," says Mucciola

The new location benefits from being closer to the city and more integrated within the urban fabric

We had a very good design team though, including many specialist consultants, and we worked closely with our contractors to overcome the challenges we faced.

Personally, the most challenging moment was when I sent the wall 3D model to the contractor team. This was critical because the external wall, which is the main structure of the building and give the shape to the entire project, had to be perfect and no mistakes were allowed in the model.

Hitting the "send" button for the email was one of my most critical moments during the construction of the project.

How have your past experiences influenced this project?

I think my Italian background and the special character of public spaces and piazzas in Italy have influenced the way I approached the design of V&A Dundee as a public space for the city (or living room for the city).

What does V&A Dundee mean for Dundee?

This project is very important for Dundee, and it is already changing the face of the city.

The public has been always very supportive of our design, and seem to be very proud of having a new V&A in their city.

I think the most successful aspect is that the city and the cultural institution in Dundee, including the city's two universities, have played an important role in transforming the cultural offer in Dundee beyond the V&A and even before it opened its door to the public.

The most obvious result is that Dundee has been named UNESCO City of Design years before the museum opened.

What is your favourite part of the building?

My favourite spots in the building are the river view from the restaurant and the oak bench around the main hall space. When I sit on the bench I have the feeling of being in a very enjoyable public space and this is the part that makes me proudest of the entire project.

What are you working on next?

With PiM.studio Architects, my London-based practice, we're working on a number of small interesting projects. These include a family house in Switzerland designed around an open patio; a public square in Italy filled with trees; and a public rooftop sauna in London. We're also working with the London design gallery 'Matter of Stuff', developing some interesting designs and testing fabrication techniques on marble surfaces. ●

RESIDENTIAL

OUT ON A LIMB

A 10m-high ficus tree takes centre stage in the design for this unique home by Carlo Ratti

A series of interconnected rooms on different levels are arranged around the main living space, which houses the ficus tree



The design for the farmhouse has been organised around the 50-year-old tree



IMAGES COURTESY OF CARLO RATTI ASSOCIATI

Bringing the outside in has been taken to another level with the design for this private residence near Parma in northern Italy. Unveiled recently by Carlo Ratti, the home has been conceived around a 50-year-old ficus tree, which grows through the main living area.

All around the tree, a sequence of interconnected rooms creates six stepped spaces, each of them dedicated to a specific activity; these include a space for practicing yoga, a dining area, a reading space, a wine cellar and a place for storing dry cured ham for ageing.

"We wanted the design to reflect our innate biophilia, the natural impulse to connect with other forms of life," said Carlo Ratti, founding partner at Carlo Ratti Associati and director of the MIT Senseable City Lab at the Massachusetts Institute of Technology (MIT). "We're trying to imagine a new domestic landscape built around the rhythm of nature."

The dining room sits at the base of the 10m-high glass wall; it's built slightly below ground level so that the top of the table is level with the grass outside and diners can look out onto the land.

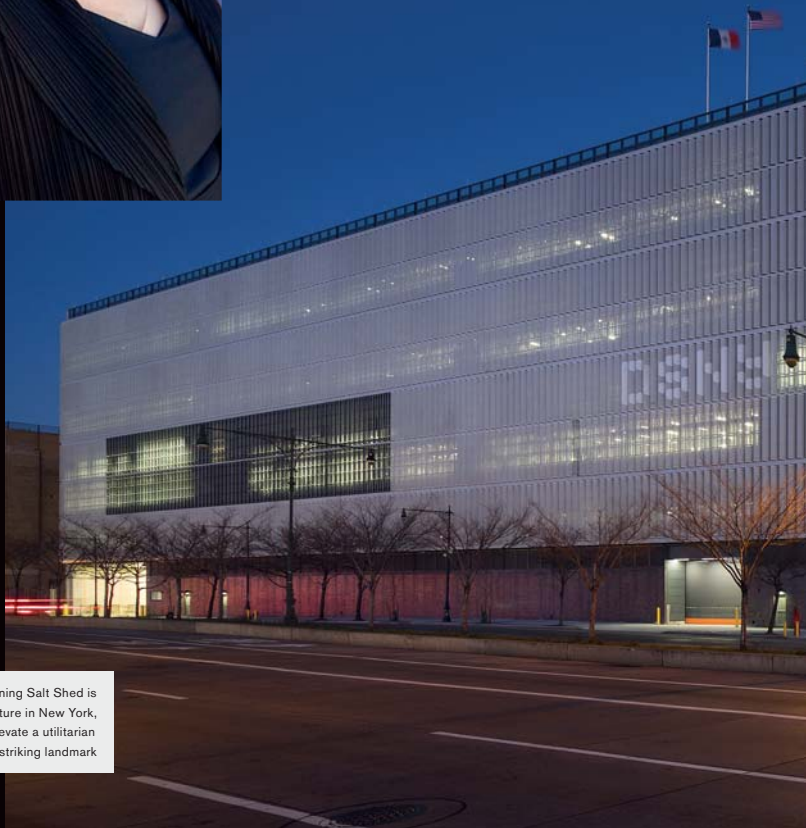
Construction on the farmhouse is due to start in 2019. ●





PHOTO: BRUX NERI

CLAIRE WEISZ



The award-winning Salt Shed is an iconic structure in New York, designed to elevate a utilitarian building into a striking landmark

Co-founder of WXY, Claire Weisz has been instrumental in a number of high profile projects to improve the public realm. She talks to **Kath Hudson** about how architects need to move their thinking beyond their buildings and into the streets

Despite growing up on Canadian prairies, Claire Weisz has earned her reputation through her work in cities. Iconic projects in New York include the ethereal Sea Carousel, the Salt Shed and Rockaway Boardwalk. Next on her hit list is to turn the area around the New York Stock Exchange into a safer, greener and more pedestrian-friendly environment.

Underpinning her work is the belief that public spaces are the key to socially-resilient cities and that architects have a responsibility to improve the public realm and should be thinking beyond the buildings. Weisz formed WXY in 2006, with Mark Yoes. In 2016 the practice was awarded New York State Firm of the Year Award by the American Institute of Architects New York State.

Why did you decide you wanted to be an architect?

I always loved drawing and diagramming, and when I was introduced to architecture by a neighbour I decided it was what I would like to do. The idea of creating something which doesn't exist was fascinating and I liked the outlet of being able to change the space around me.

Why did you start your practice in New York rather than Canada?

I gravitated towards New York after my second degree at Yale. New York is an amazing laboratory for anyone interested in architecture, design and urbanism. There are not too many restrictions and once you know what they are it's straightforward to work within them, so there's a lot of project energy around.



There are also some of the world's greatest cultural enterprises here and ambitious city governments, so it's an inspiring, open and liberating place to work as an architect. However, all these reasons leads to it attracting a lot of architects, so it's also a competitive space to work in.

How would you sum up your approach to architecture?

Public spaces drive architecture: both the buildings and the connections between them are the drivers of cities, so there needs to be a cogent public space network. The streets and connections between the buildings are as important as the building you are creating.

City planners only used to create highways, which were exclusively for cars and disrupted the existing streets and communities. If you observe what is already there and design in accordance with the existing natural systems, making places accessible by foot, or bike, then one plus one becomes more than two.

The Sea Glass Carousel

Inspired by the ocean and The Battery's history as the first home of the New York aquarium, this spiraling structure is made out of stainless steel and glass, which forms a shell for interior projections. Riders sit within the fish figures and, during the ride, digital projections and music recorded by New York musicians are used to create a powerful underwater experience.

For example, masterplanning a waterfront can make a massive difference to how people use the space for working, living and playing, their feeling of safety and their mental health. The social resilience of cities depends on the systems being integrated. Siloed areas with big walls, or speeding highways, are all chinks in the armour of cities. Architecture has a lot to contribute in breaking down these barriers.

Dorte Mandrup has said she objects to being labelled a 'female architect', arguing it gives the impression women are doing well due to, or in spite of, their gender. Do you agree?

I think she has a point. I prefer to be labelled a feminist architect. I think the breakthrough for Zaha Hadid came when people just said her name, not that she was a female architect.

I have been lucky enough to work with many great clients who are women, but I'd love to work with more women, as well as more minority clients,



The Sea Glass Carousel in Battery Park, Manhattan, elevates the traditional carousel into a digitally-enhanced aquatic journey

After the destruction of Hurricane Sandy, the Rockaway Boardwalk was rebuilt and designed to be a space that brings the community together



I prefer to be labelled a feminist architect than a female architect. I'd love to work with more women

because they bring a different perspective and this then leads to more diversity within architecture.

What has been your most challenging project?

They've all had their challenges, but maybe the most challenging was the Sea Glass Carousel at the Battery. This is an aquatic carousel, where people sit in fish rather than horses. Digital projections add to the traditional carousel experience.

Now when I cycle past, it looks really cool and it's so gratifying to see people using it. It was an incredible public project to benefit generations to come, in a place most people would usually avoid, but there wasn't one part of it which wasn't a new idea. Many projects we work on already partially exist, or we're remaking what's already there, but no part of this had been done before.

As it's constructed from glass and stainless steel, it didn't fit energy codes, so we had to

have a customised procurement process. Also, it was subject to Wicks Law, a New York law which applies to public projects exceeding \$500,000. It means that prime contractors must be used for each aspect of the construction, rather than using the same company to do everything. This is in order to ensure expert performance, but it does make projects more complicated, as everything has to be separately commissioned and specified. To add to it all, it also suffered hurricane damage.

You also reconstructed the Rockaway Boardwalk after it was destroyed by Hurricane Sandy, what did that project mean to you?

This presented the opportunity to work with a community which had had its hey day and was then devastated by the hurricane – 4.8 miles of the boardwalk was destroyed. There was some pressure to just try and rebuild it quickly and cheaply,

The Rockaway Boardwalk

In the wake of Hurricane Sandy, WXY was commissioned to rebuild the Rockaway Boardwalk in order to create a new leisure destination. Sand coloured concrete planks, speckled with tumbled glass, were set in a wavy pattern to mirror the coastline, while glow-in-the-dark aggregate evokes the bioluminescence in the ocean. Contemporary bench seating provides places to rest and gather.

so credit should be given to those agencies who wanted it to be done right.

There was the ambition to create more than just a sidewalk and to create something which was iconic. For inspiration, we looked at some of the beach projects which had been done in Europe and Miami, with wood and hand laid tiles, but none of these were appropriate.

Tropical hard wood is not considered sustainable, so we can't use it in New York. And the maintenance required for hand laid tiles wasn't viable for a boardwalk of this length.

In the end we used sand-coloured concrete planks and created a wavy line pattern along the boardwalk. It reflects the sea with speckled-coloured tumbled glass and glow-in-the-dark aggregate. Graceful steel rails and contemporary seating all add to the experience. Masterplanned to link spaces together, it has become the place for the community to congregate.

The Salt Shed is one of your most iconic buildings, what was the thinking behind this project?

Mayor Michael R. Bloomberg made it a top priority to elevate the dignity of civic infrastructure, as well to redirect the longtime city practice of locating this type of infrastructure in less visible neighbourhoods of the city. Our response, with our co-architects Dattner, was to make the small element a precise but crystalline salt rock and the large one a light machine.

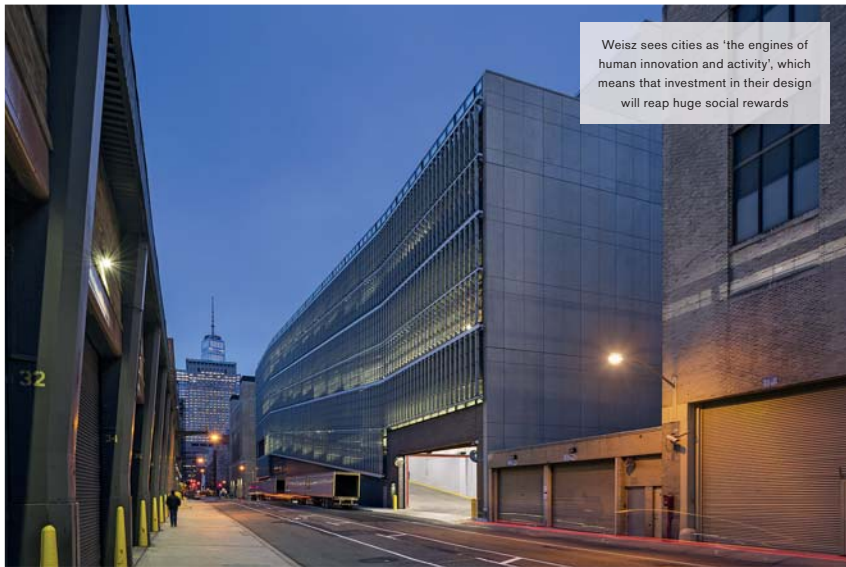
What appeals to you about urban environments?

Cities are the engines of human innovation and activity, so investing in their design reaps huge rewards. But I grew up in a Canadian prairie landscape, so I like super rural locations as well as super urban ones. I like buildings which respond to nature: the better the landscape, the better the challenge.

The NYS Parks Cabins



WXY was charged with the task of designing 10 vacation cabins for Wildwood State Park on Long Island. Unfinished wood is used to create cosy interiors, while the outside is clad with cedar shingles, reclaimed mahogany trim and metal roofing.



Weisz sees cities as 'the engines of human innovation and activity', which means that investment in their design will reap huge social rewards



The architectural plan is to turn the area around the New York Stock Exchange into a greener, more pedestrian-friendly environment

Are the vacation cabins at Wildwood State Park an example of this?

Yes, these cabins are set in beautiful, rural landscapes. There was a restricted budget, so we needed to create something which would be simple to construct by the park's carpenters. We really enjoyed figuring out the design. Although there are only two designs, the way they are set out means they don't look identical. Those which are located on the rolling hills have double-pitched roofs which mimic the landscape, while those on the dunes have a more beach vocabulary.

These cabins are clad in cedar shingles with reclaimed mahogany trim and metal roofing, but with different cladding they could be adapted for a number of uses in many different locations.

You are soon going to be working to make the New York Stock Exchange more pedestrian friendly, what will this project involve?

The main goal of the Stock Exchange District plan is to create a dynamic urban space which works for all its users, while celebrating the four centuries of history which have defined the heart of Lower Manhattan. To achieve this, the report is organised around three guiding

We're still challenged with communicating the value of architecture and design to people who are not architects and designers

principles: creating identity and a sense of place; enhancing pedestrian environment and improving mobility; and rationalising deliveries, separating trucks from pedestrians.

Design features will highlight the entrances to the district, creating a sense of arrival, and more uniform and attractive materials will be used throughout the zone. Our redesign will enhance the pedestrian experience in the district, while creating more attractive and multi-functional seating options. Aligning the design of the district's streets with how they are actually used, and eliminating redundant security devices, will create more room for pedestrians.

New loading and unloading areas will accommodate the needs of the district's residents and workers, while the new street designs will improve pedestrian flow and discourage trucks from parking on sidewalks.

What other projects are you currently working on?

One of the projects we're working on is a new bridge which will be erected in Manhattan near the World Trade Center, linking Battery Park with Lower Manhattan. With glass covering lenticular trusses, it will look attractive and serve the practical purpose of allowing people to cross the road at the mouth of the tunnel, but will also offer an experience and allow people to enjoy great views.

What do you see as the most pressing challenges for architects?

We're still challenged with communicating the value of architecture and design to people who are not architects and designers. It's hard to explain concepts such as sustainability, resiliency and the importance of public space and what we do and why. ●

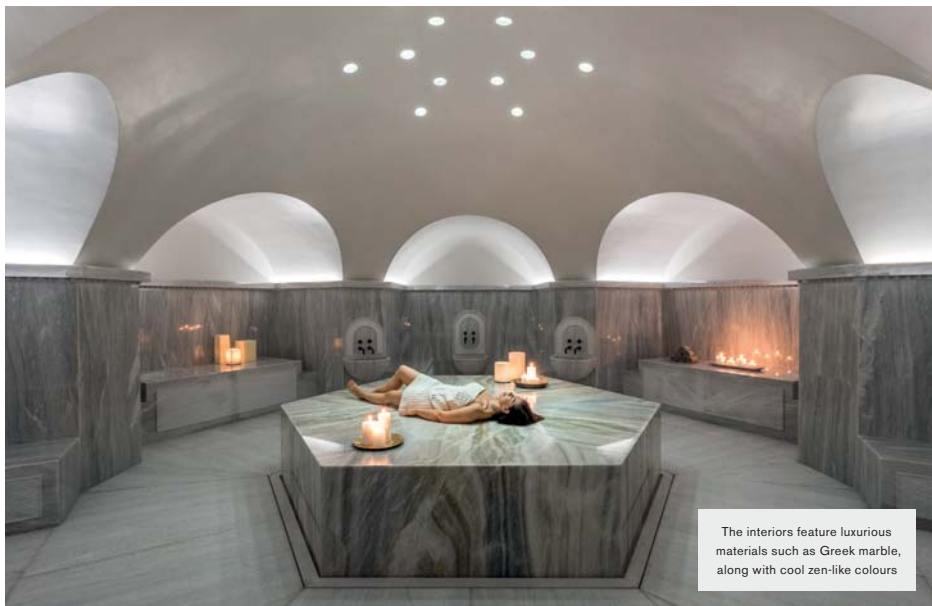


JOURNEY TO BLISS

Offering a unique blend of Hellenic and Chinese modalities, the Euphoria Retreat in Greece has been designed to deliver a transformational journey for its guests, finds **Julie Cramer**



Euphoria Retreat is nestled in the foothills of the ancient Mt Taygetus, overlooking pine forests



The interiors feature luxurious materials such as Greek marble, along with cool zen-like colours

When Marina Efraimoglou first caught site of the land where her Euphoria Retreat now sits in the Greek Peloponnese, she knew she'd discovered a place where real transformations could happen.

Opened in July 2018, the 45-room spa retreat also marks the culmination of a personal journey of discovery for Efraimoglou, who quit her high profile career in Greek investment banking in 2001 to travel, experience and learn about the world's best healing modalities.



When I discovered this place eleven years ago I immediately felt its magical energy

Her creation, Euphoria Retreat, now nestles in the foothills of Mt Taygetus, overlooking an unspoiled valley of pine forests, citrus trees and olive groves, close to the renowned city of Sparta, the Byzantine town of Mistras (a UNESCO World Heritage site) and a 40-minute drive to the sea.

Efraimoglou says: "I'd been searching for the perfect place to build my retreat and when I discovered this place 11 years ago I immediately felt its magical energy."

"A builder had started to develop the ancient mansion on the land but had become frustrated with the strict Greek regulations related to sites of historical significance."

Efraimoglou bought the land and, once through the lengthy bureaucratic process, renovation of the existing structure and the new spa build took just 20 months. The total investment of £20m has come from Efraimoglou's personal resources.

The finished site includes a 15-treatment room spa, 45 bedrooms (including 14 suites), two impressive yoga spaces, indoor and outdoor swimming pool, salt room, Byzantine hammam, infrared sauna, gym and TRX studio, and extensive mountainside gardens.

The spherical design of the indoor pool is inspired by the historic Hagia Sophia cathedral in Istanbul



The retreat has a focus on mind, body and spirit, and every element of the architecture and interiors is designed to reflect that

Euphoria Retreat THE FACILITIES

- 45 rooms with views of the town of Mystras and its castle, and the forest
- Private forest

Euphoria Retreat

Spa featuring:

- Sphere Pool
- Relaxation area
- Tepidarium
- Byzantine hammam
- Waterwell kneip therapy
- Fitness room
- Yoga and meditation hall



- Additional spa facilities including an infrared sauna and Laconium Finnish sauna, a herbal steam bath, experience showers, a cold plunge pool, Speleotherapy salt room and a pilates and private exercise studio

The mansion has six bedrooms, including two luxury suites, private dining room and library – and can be rented separately.

"For environmental reasons, we had to sink the new building deep into the mountainside – but it's also in keeping with our philosophy. The closer you get to the earth the more healing can take place. You can't experience healing if you're on the 21st floor of a skyscraper!" says Efraimoglou.

"We went through four applications just to get permission for a pool, because there wouldn't have been one here in Byzantine Greece, but I knew we had to have one," she says.

The original Greek meaning of Euphoria is a state of happiness and bliss – a continuous balance between body, mind and spirit – and this is exactly what Efraimoglou wants to help guests to achieve at her 'transformational retreat'.

She confesses that during the many years she spent experiencing spas around the world they "frequently lacked joy...and a soul. The European spas in particular can be quite austere and medical."

FORGING CONNECTIONS

The architectural design for Euphoria has been conceived around the guest's personal physical and emotional journey.

For this important task Efraimoglou recruited her architect sister Natalia, and award-winning Greek architectural firm Decca.

"My sister brought the female energy, and Decca brought the male energy to the project – yin and yang," she says. "We've used local cultural and historic references. The design incorporates



The interiors of the Euphoria Retreat include many vaulted ceilings and arches, reflecting the design of local churches

many vaulted ceilings and arches to reflect the nearby churches. We've also used rich Byzantine colours like red, blue and yellow, but only as accents. Where we've used gold, it's a matt gold. For the bathrooms we've used Greek marble and onyx."

The overall feel is calm and zen-like, with whites and greys that represent the cooling metal element, she says.

Efraimoglou is particularly proud of the much fought-for pool structure, inspired by the Hagia Sophia cathedral in Istanbul, which runs four metres deep and has a spherical base. She says: "When you dive in and experience the sound waves it creates, with the sun overhead, you really feel like you're returning to the womb and experiencing a rebirth. Nothing like this exists anywhere else in the world."

It seems that symbolism has been built into every part of the new spa, which houses 15 treatment rooms and currently employs a team of 10 therapists. Efraimoglou says: "The four-storey spa is built around a well, with a 25m empty cylinder rising up from the base. This represents the light and the emptiness at the core of us all. Guests go on a journey from the bottom, and the dark, up towards the light. It's like the Greek concept of catharsis – a kind of purging or purification."

"They start with water therapies like Kneipp on the ground level and move up through the pool, the tepidarium, the treatment rooms and onto the cocoon-like relaxation areas."

It's clear the ex-banker has left no stone unturned – and she admits it's been a long, sometimes difficult journey, to get here.

You really feel like you're returning to the womb and experiencing a rebirth

"When I was in my early 20s I was diagnosed with non-Hodgkin lymphoma and given a 20-25 per cent survival rate. I went to New York for experimental chemotherapy treatment. It's there that I first made the connection between mind and body."

"Every time I vomited I imagined the cancer cells leaving my body. People around me were dying but I managed to sail through treatment relatively unscathed. It left me with some big life questions - why did I get sick, but more importantly why did I heal?"

She returned to Greece knowing that she could no longer work for someone else. She founded her own investment bank and became the first female banking CEO in Greece – scooping the award for business person of the year in 1999.

But around this time she was also burning out. She sold the bank in 2001 and embarked on a journey of self discovery that led her to study the Chinese Five Elements in Asia and numerous modalities in the US under such leading lights as Deepak Chopra.

While the opening of Euphoria Retreat might feel like a culmination of a lifelong journey for Efraimoglou, it's also just a beginning. She says: "We want to establish a mode of healing that can be replicated around the world." ●

I was intrigued by the whole landscape world

MARY BOWMAN

We can learn a lot from Singapore in terms of its approach to planning and green space, the Gustafson, Porter + Bowman partner tells Kath Hudson



Mary Bowman studied at the University of Virginia and the Architectural Association



The Green Heart at the centre of the Marina One development in Singapore

How would you sum up Gustafson Porter + Bowman's approach to landscape architecture?

Our approach is to try and understand the nature of a place and then to create a landscape that's very contemporary, but at the same time feels like it's part of that place.

Another aspect that our landscapes are particularly known for is the 3D modelling of space, the sculpting of the public realm and the external environment.

When did you become interested in landscape architecture?

I trained as an architect and worked at Foster + Partners for 10 years and then at Walters & Cohen with Cindy Walters (a former colleague from Foster + Partners).

In 2002, I moved into landscape architecture with the encouragement of [Gustafson Porter + Bowman co-founder] Neil Porter. Earlier this year I qualified as a landscape architect – so I'm both a landscape architect and architect.

What prompted that move into landscape architecture?

During my training at the Architectural Association, I was always interested in the relationship between building and landscape; I tended to gravitate towards the kind of studios that were exploring landscape. I'd known Neil Porter from the AA and our children were at nursery together. I happened to

Marina One was quite special in the degree of integration between the landscaping and architecture

bump into his wife and she said that Neil was looking for a partner to help in the London studio. Kathryn (Gustafson) and Neil had just started to take on board more projects and the studio was small. I thought the work was very beautiful and was intrigued by the whole landscape world.

You were responsible for the landscape design at Marina One in Singapore. How did you approach that project?

When we came on board, Christoph Ingenhoven of Ingenhoven Architects had defined the concept of the Green Heart at the centre of the Marina One development.

We took that idea of having a central public garden and developed it into a powerful landscape concept. The design was a product of many people's input. Neil Porter did the original competition design, Kathryn Gustafson developed the planting design and I worked closely with the architects and our local partner ICN to develop the details.

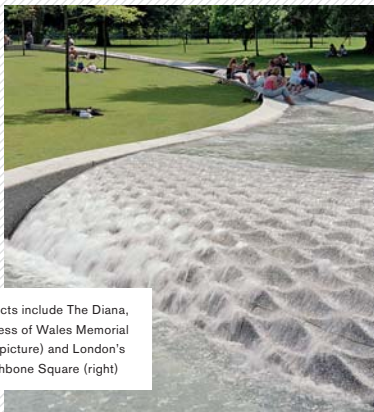


ABOUT GUSTAFSON PORTER + BOWMAN

Gustafson Porter + Bowman was established in 1997 as Gustafson Porter, when the landscape architect Kathryn Gustafson opened a London office with architect Neil Porter. Mary Bowman joined the practice in 2002. Gustafson, Porter and Bowman, together with partners Sibylla Hartel and Donncha O Shea, are supported by a wider team of landscape architects and architects from around the world.

Ongoing projects include Taikoo Place, Hong Kong; Valencia Parque Central in Valencia, Spain; International Quarter London in Stratford, London, UK; and the Holocaust Memorial and Learning Centre with Adjaye Associates and Ron Arad Architects, also in London.

From left to right: Donncha O Shea, Mary Bowman, Kathryn Gustafson, Sibylla Hartel and Neil Porter



Projects include The Diana, Princess of Wales Memorial (this picture) and London's Rathbone Square (right)





A winding ramp allows visitors and residents to ascend from ground level through rich vegetation

Can you sum up the Green Heart concept?

It's a large public space at the centre of the Marina One building complex; it's really the focus of the whole development. It's a very lushly planted landscape, with a large waterfall feature in the middle of it.

It also has a winding ramp leading to level one, so people can wind their way through the canopies of the taller trees and are drawn upward, where they can move around the perimeter and look down onto the Green Heart.

How did you find the process of working with Ingenhoven Architects?

It was quite special in the degree of integration between the landscaping and the architecture. Part of that was because there are planning requirements in Singapore that mean that you must replace 100 per cent of the ground plane with landscape and public realm. That leads to the very green building typology which you see in Singapore.

Ingenhoven are very interested in green buildings and sustainability and were very supportive of our input on the landscape. I found them very collaborative.

Were you involved with the planting within the building?

We were involved in the planting on multiple levels. So not only the Green Heart, but the second floor, third floor, fourth floor, and 15th floor, which include the public amenity spaces.

On the upper levels of the building there are swimming pools and jacuzzis, outdoor mini golf, yoga areas, a kids' play

You can imagine the challenge of getting that amount of planting up in a high rise building!

area, adult exercise – all of those are framed by planting.


Creating that very planted landscape on the upper levels required a high level of integration between the landscape design and the architecture. It was important to ensure there was adequate soil depth, drainage and irrigation. That influenced the structure of the building, because you have to ensure that the beams and floors slabs can support the weight of soil, especially when it rains.

What other challenges were there?

You can imagine the challenge of getting that amount of planting up in a high-rise building! Many of the plants and trees have to go up in the building lifts, but obviously if you have tall trees they don't fit into most lifts, so they had to be craned up by hoists and cranes.

What are your thoughts on the wider trend for incorporating greenery into buildings?

We're certainly seeing increased interest in the idea of having green walls and planted landscape within buildings. I think Singapore leads the way because they have enshrined a lot



Taikoo Square features a series of terraces and two large pools

of the ambition into their planning policy. That sort of forward thinking isn't enshrined in planning in the same way in the UK

We do work with developers wanting to have more green buildings and we know ecologists pushing for more biodiversity in developments. You see people wanting to have high level terraces in residential commercial buildings. The landscape isn't just confined to the ground level; there are opportunities for planting on many different levels. That's something that's definitely changed in the last five years, particularly in London where you get a lot of rooftop terraces, and more green walls, as well as more planting in the public realm.

Do you think the role of green spaces in our cities is changing?

There's a growing interest and support for getting more trees and planting into our urban environments, and more of an

awareness of how that improves the quality of the public realm. As more and more people move into cities, it's important to work to develop an urban character that can also embrace nature.

Which cities do you admire in terms of their approach to green space?

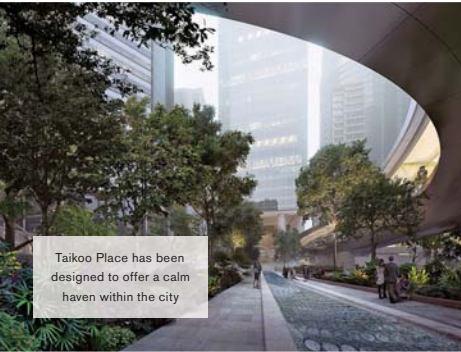
For a landscape architect, Singapore has definitely led the way in terms of its approach to green space. Part of that is because the National Parks Board sits together with the Urban Regeneration Authority and the Transport Authority and the Water Authority and so on. They're a very important authority within the city. They have introduced measures into their planning requirements where you have to have a certain amount of green space and they make sure that it happens. We were very fortunate to have worked with Dr Tan on Marina East, who is one of the founders of Singapore's green policies. I also very much enjoy cities like New York, which has gone through a kind of transformation in terms of adapting parks and streets to suit a 21st century lifestyle, turning quite harsh environments into places where people want to be by creating parks, walkways and plazas that weren't there 15 years ago.

You are working on Taikoo Place in Hong Kong. Can you describe that project?

It's a new public space which replaces the site of an existing tower in central Hong Kong, near Quarry Bay.

The 69,000sq ft (6,410sq m) landscape project is made up from a series of gardens. These include Taikoo Square – the largest space – which is comprised of a series of terraces and features two large pools. Kathryn Gustafson and Sibylla Hartel are working on the project.

Neil Porter and I are both architects, and we worked on some of the interiors for one of the office buildings. This means that the public realm actually comes into the building, and is integrated with the ground floor and first floor lobby spaces, which we also designed. That's a good example of landscape



Taikoo Place has been designed to offer a calm haven within the city



Local authorities and private developers see the value that a well-designed public realm can add to a building project



moving into a building and we are able to take on quite complex projects given our combined skills.

Hong Kong is quite a frenetic place. Will these new public spaces offer an antidote to that?

Very much so. The gardens have a series of water features that draw on our experience with the Diana, Princess of Wales Memorial Fountain. We think that these will create a destination that's a calm and environmentally comfortable place to be. We've used highly textured granite stone to create a series of different water effects. It will be a quiet, contemplative space for people to spend time in. The first phase of the landscape should complete later this year or at the beginning of 2019, with the full garden completed in the final phase by 2020.

Tell us about the recently opened Rathbone Square project in London

The aim was to redevelop the former Royal Mail site off Oxford Street into a commercial and residential development with a new publicly-accessible garden square at its heart.

In terms of the courtyard, the aim was to open up a site that's been closed off to the public for years. The route between Rathbone Place and Newman Street has been reconnected for the first time since the Royal Mail site was there.

We worked very closely with Make Architects, and also with Publica who did a public realm strategy for the wider area. The challenge for a relatively small courtyard garden like that in Central London is how can you hold people, and at the same time allow it to be a great movement space.

We work all over the world but it's really nice to be able to work in one's hometown. I studied at the Architectural Association and lived on Charlotte Street, so I've known that area for a long time! It's great to see it transform.

Are you seeing more integration between architects and landscape designers?

There's more of a demand for landscape architecture services now, not just from local authorities, but also from private developers. They see the value that a well-designed public realm can add to a building project. There's a greater value put on landscape than there was 10-20 years ago.



International Quarter London is one of the city's largest new mixed use projects

What is your focus over the next couple of years?

We've got quite a bit of work in the UK at the moment. We are working on several projects in London. I'm currently working on the International Quarter London project in Stratford with Lend Lease, which is a really big development on the edge of the Olympic Park in East London.

We're working on the landscape masterplan and developing the landscapes for the various residential and office buildings as they come forward. That whole area of the city will be completely transformed by the project but also by the Eastbank scheme, which will bring cultural and education buildings to Stratford. It's very exciting to create a new piece of the city.

We're also working on the public landscape surrounding the Chelsea Barracks residential development in Chelsea, London.

Further afield, we're completing Valencia Central Park soon in Spain. It will be one of Europe's largest public parks, so that's very exciting. We're also working on a project

{ The Diana, Princess of Wales Memorial Fountain was very challenging, but it was a special project }

called Europea Neo Brussels in Brussels to create public landscaping within a 68-hectare high end mixed use district around the Heysel stadium.

We've been working in Doha for many years, and then there's our ongoing work in Hong Kong, as well as several other projects – from York (UK) to New York (USA). Recently we were shortlisted as one of four teams to enhance and restore the landscape surrounding the Eiffel Tower. The site covers the 54 hectare area either side of the river Seine, between the Trocadéro and the Military Academy including the historic gardens, water features and great lawns – it's huge! So we have a lot on, ranging from small squares to major public parks. Our work is very varied.

Do you have a favourite project that you've worked on?

The Diana, Princess of Wales Memorial Fountain is a special project. It was super challenging, and stressful at times, but it was a great pleasure to work on.

We were doing something new and very exciting with that project. I was particularly proud of the fact that we were able to bring new technologies to traditional stonemasonry in order to create something new.

That was made possible by collaborating with other people with technologies and software that had never been put together in quite that way, and working with contractors who had never done that type of work before. Everybody put all of their energy and enthusiasm into it. ●



The Valencia Parque Central project is approaching completion

The fountain was created from 545 pieces of Cornish granite



Diana, Princess Of Wales Memorial

LONDON, UK

Opened in 2004, the Diana, Princess of Wales Memorial Fountain was based on the concept of 'Reaching out – letting in', taken from the qualities of the Princess of Wales that were most loved; her inclusiveness and accessibility. The fountain's sculptural form is integrated into the natural slope of land in London's Hyde Park and is designed to radiate energy as well as draw people inwards.

A popular place for visitors to engage with the water, the fountain has detailed grooves and channels which combine with air jets to animate the water and create different effects such as a 'Chadar Cascade', a 'Swoosh', 'Stepped Cascade', 'Rock and Roll' and a still basin at the bottom.

Designed and cut using digital technology, the fountain is made from 545 pieces of Cornish granite. The design appears as a light-coloured ring which contrasts with the surrounding meadow area and planting.

Gustafson, Porter + Bowman SELECTED PROJECTS

Towards Paradise

VENICE ARCHITECTURE
BIENNALE, ITALY

'Towards Paradise' was the first major landscape installation to be part of the Venice Architecture Biennale. Working in collaboration with Gustafson Guthrie Nichol (GGN), the garden installation was carved out of the overgrown grounds of the former Church of the Virgins, a Benedictine nunnery that was destroyed in the late 1800s.

The journey began with the discovery of the garden. Visitors entered through the garden wall and found themselves among the ruins of buildings covered in ivy. A path led to the Store Room or place of Memory, a warehouse where the back wall was inscribed with the Latin names of extinct fauna and flora.



Leaving Memory to explore the path through the thick overgrowth and ruins of an abandoned garden, the visitor then moved to the Garden of Nourishment, a traditional food garden.

In a clearing was the contrast of Enlightenment, where unearthly 'clouds' held aloft by white helium balloons above an oval-shaped landform aimed to 'inspire reflection and dreams of paradise'.

● The Garden of Nourishment featured white 'clouds' held up by helium balloons



The former brownfield site is now a lively park



Cultuurpark Westergasfabriek

AMSTERDAM, NETHERLANDS

Completed in 2006, Cultuurpark Westergasfabriek was one of Gustafson Porter + Bowman's defining projects, and is considered as a model of brownfield reclamation within a physically dense urban context and a complex set of stakeholders. The scheme establishes a delicate balance between contamination and accessibility, invention and interpretation, restoration (of contaminated land) and revelation (of the potential of a post-productive site). Today it is a vibrant cultural center for the arts and a meeting place for surrounding communities.

The 11.5-hectare site includes trails and gardens, an events field for 10,000 people, a playground, a waterfall, a bridge, and an artificial lake that can be drained to accommodate large festivals.

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: AMIGA PRESS / JEREMIE MAZZINGI



JO&JOE, an Accor concept directed at millennials, aims to open 50 sites by 2020

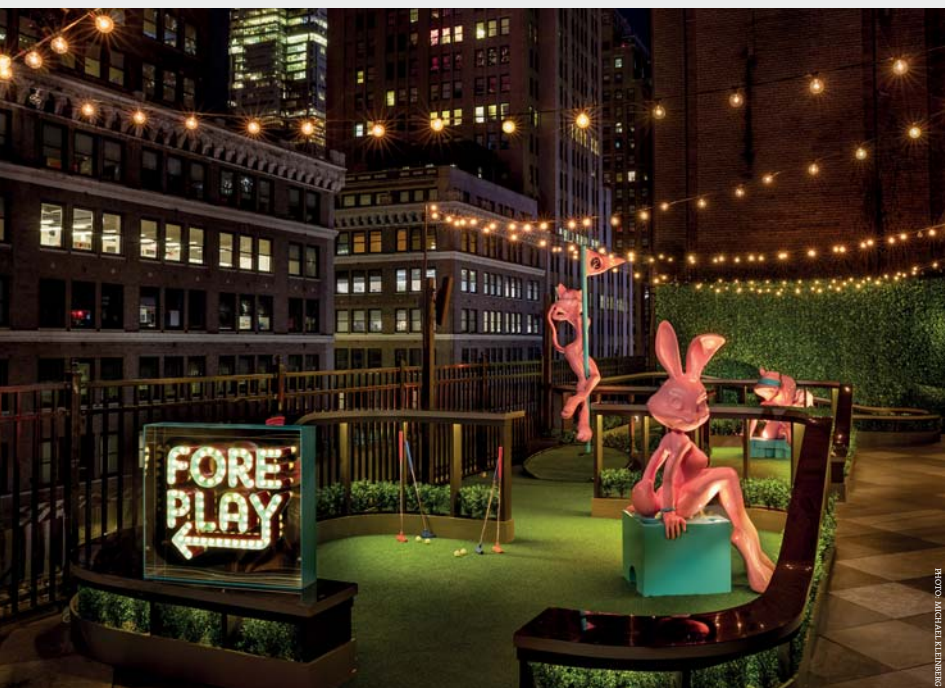


PHOTO: MICHAEL KLIMBERG

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



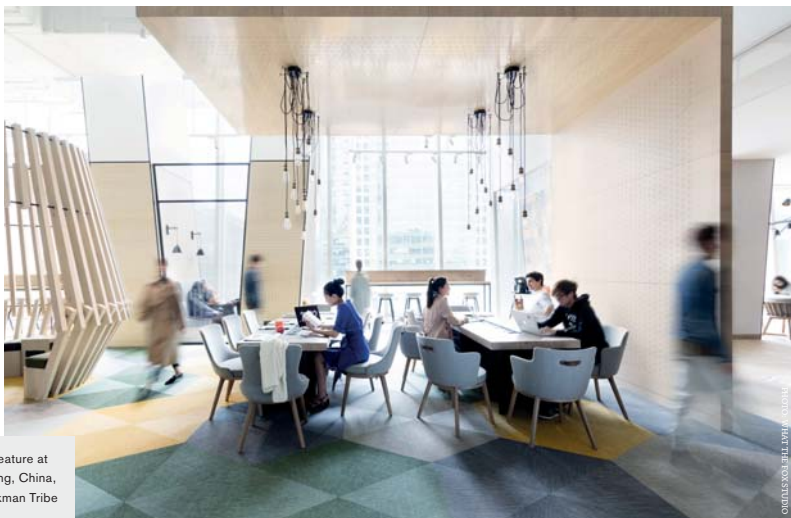
PHOTO: WHAT THE FOX STUDIO

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

Aged 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 Moxy, 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



Rockwell Group were responsible for the interior design of EMC2 in Chicago

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.

"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, who collaborated with Rockwell Group on the design of 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!"

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.



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





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

{ Millennials are investing more in experiences versus physical things }

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 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."

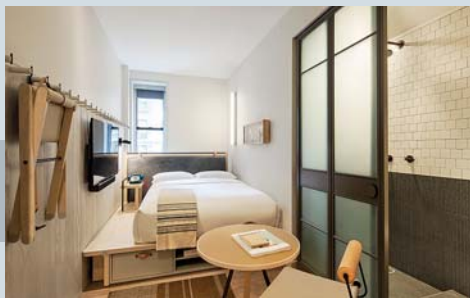
What millennials want

- 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





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."

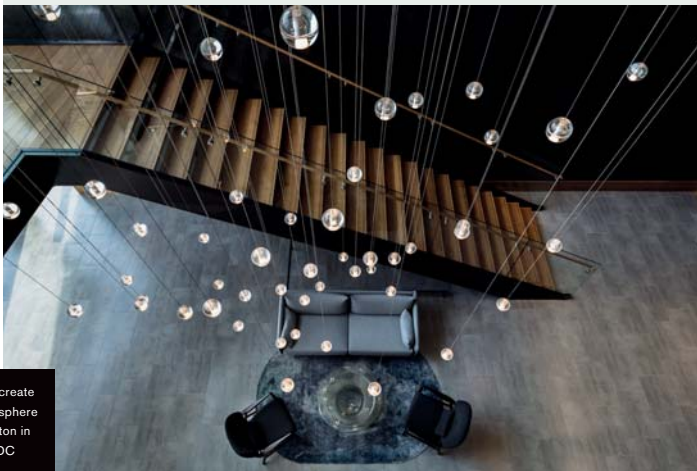


Millennials want more freedom, the ability to choose and adapt an existing product around themselves and their lifestyle

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

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.

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,

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

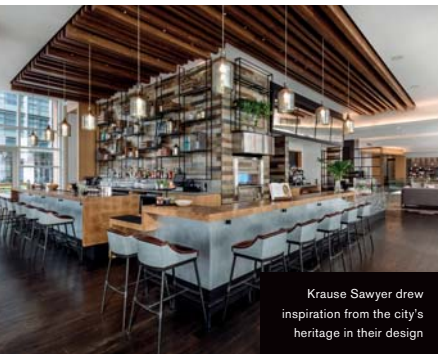


PHOTO: GUILAUME GAUDIN

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



PHOTO: ROBERT WITTE

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

In response, an intelligent wall system has been designed, with modular, contemporary, custom built-in furniture. 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. 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, engage and work in interchangeably. Ultimately, travellers are looking for flexibility in having their needs and wants met."



Tobias Wallisser

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. ●



Millennials
are pushing
us architects to
design hotels
with distinct
personalities

NEW AGE TRAVELLERS

Sameness and anonymity is out – it's all about fun and authenticity
for Millennial travellers, says Rockwell Group partner Greg Keffer

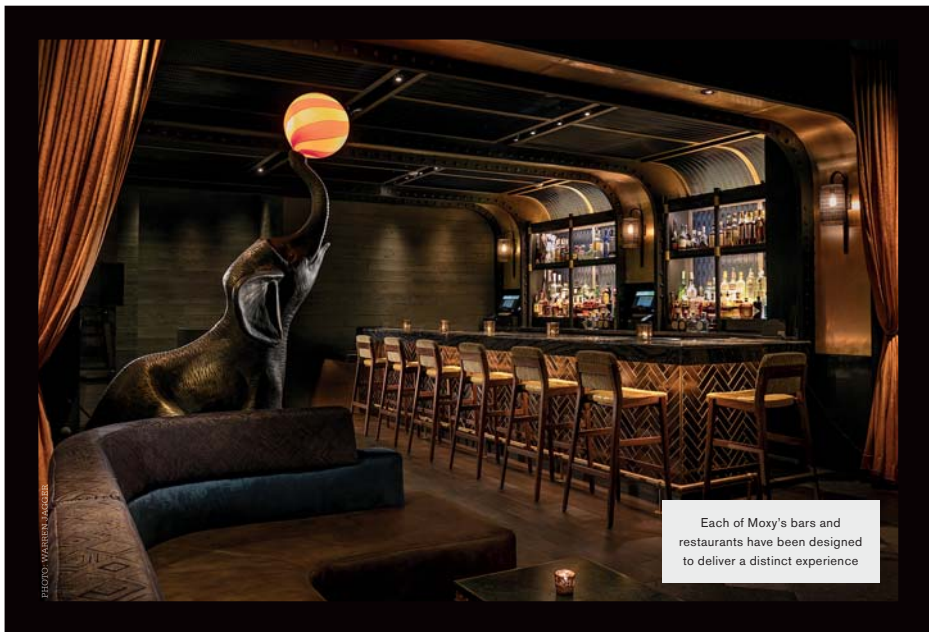


PHOTO: WARREN JAGGERS

Each of Moxie's bars and
restaurants have been designed
to deliver a distinct experience



Hotel EMC2 is part of Marriott's Autograph Collection, where no two hotels are the same

What do Millennials want out of a hotel experience?

Modern travellers value experience and community over opulence and material possessions, and hospitality is beginning to reflect that. Millennials crave an authentic experience, rooted to its time and place.

Moxy is a great example of a brand designed for travellers who want a hotel to be a fun and coherent experience, not a sequence of formalised rituals. Our firm recently designed three key amenity areas for Moxy Times Square in New York. The restaurants, which are operated by the TAO Group, provide visitors with distinct experiences. Egghead is a compact, street-level fast casual spot. Legasea is a warm, intimate seafood brasserie on the 2nd floor. Inspired by classic amusement parks, the Magic Hour Rooftop Bar & Lounge is a series of playful dining and lounge areas with views of the city skyline.

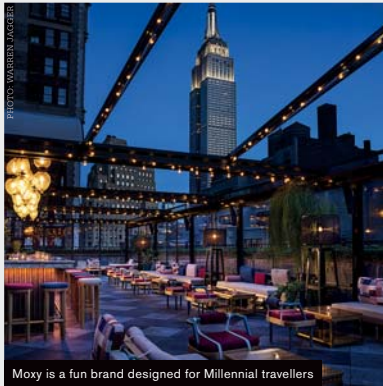
What don't they want?

Sameness and anonymity. For decades, hotel brands focused on the homogenisation and streamlining of their properties. It was more about reliability and consistency and less about the enjoyment of difference. Difference was regarded as a flaw.

For example, we recently completed Hotel EMC2 in Chicago. The property is part of Marriott's Autograph Collection. The brand emphasises individuality. No two Autograph hotels are alike.

Our client approached Rockwell Group because he wanted something different from any other hotel. It's great to have a developer that's passionate about their project in a personal way and collaborates along the journey to ensure all the points align to make magic.

The hotel is located in a burgeoning science-driven district in Chicago, so our goal as designers was to capture the intersection of



Moxy is a fun brand designed for Millennial travellers

art and science. The design concept for the lobby, restaurant, amenities, and guestrooms celebrates the artist and scientist's shared sense of discovery, creativity, and innovation. We balanced the two realms by focusing on the similarities between the artist and scientist – their shared sense of curiosity, creativity, and passion for innovation.

{ Narrative and storytelling are more important than ever }

The double-height space of The Albert restaurant allowed us to play with this concept on a grand scale. We conceived a haphazardly-stacked collection of bookcases and dressers to not only give a more human scale to the dining room, but also to form a fantastic structure hiding a secret staircase to a lofted lounge high above. Consistent with the concept of discovery, the bookcases playfully evoke an imagined home of a scientist and a poet packed to the ceiling with an eclectic collection of books, antiques, and art that they had collected throughout their lives.

How will their desires change the industry?

Obviously, Millennials are tech savvy and able to access a lot of information. As a result, they are very sophisticated and well educated travellers. Moreover, they're not interested in one-size-fits-all design. They want experiential spaces that will push us as architects to design hotels with distinct personalities that fit whatever one's character, mood, and interests are.

The evolution of "mash-ups" is one of the most interesting design concepts to emerge today. We're seeing different typologies merge, blur, and evolve into unique solutions that support how people live,



NeueHouse combines 'office and social' in a co-working space

PHOTO: EMMETT ANDREWS

work, and play today. As a studio, we've been looking at a wider range of projects – from hotels and restaurants, to offices, theatres, and train stations – through the lens of hospitality. I think there's a realisation that there's a hunger for people to share social space in other environments. I think it's partly a reflection of the physical isolation associated with social media, and an acknowledgement of a basic human need.



PHOTO: MICHAEL KENNEDY

The Albert restaurant interiors playfully explore the world of the artist and scientist



The Hilton Innovation Gallery showcases the company's latest brands, products and vision

An example is NeueHouse, a co-working environment in New York and Los Angeles. In both locations, we combined elements of hospitality, office and theatre to create a new type of work space to house new forms of work habit. Essentially, the idea was to encourage and capture the serendipitous encounter by creating a series of inviting public spaces, where members can gather, socialise, and exchange ideas.

How do you approach designing for Millennials?

Narrative and storytelling are more important than ever in hospitality these days as travellers demand luxury and a residential sense of comfort in addition to a unique, immersive experience. We pour over the history of the hotel's location – and in some cases, the history of the building itself – to weave allusions to the past into our design concepts and details. There's growing interest among hoteliers in anchoring their hospitality projects to the local culture and context or a specific place and time to make their guests feel as if they are stepping into a different world.

Hoteliers are also seeking other ways to address the needs of millennial travellers. Hilton commissioned Rockwell Group's LAB, our in-house innovation studio, to create the Hilton Innovation Gallery, an R&D lab to showcase the company's new hotel brands, products, and vision for the future to their key constituents (owners, operators, and employees), and inspire individuals to think differently about hospitality and the future of the service industry. It also enables Hilton to invite its creative collaborators and brand partners to test new products in a variety of event types. ●



THIS PHOTO & ABOVE: CHAUNTE VAUGHN, HILTON INNOVATION GALLERY

Linda Boronkay

At the end of a very busy year for Soho House, design director Linda Boronkay talks to **Magali Robathan** about White City House as well as the group's other openings



The circular Helios building housed the headquarters of BBC Television between 1960 and 2013. The building is Grade II listed

Originally from Budapest, Linda Boronkay moved to London when she was 20, where she won Britain's Best Emerging Interior Designer award while still a student at London Metropolitan University.

Since graduating, Boronkay has worked for Tom Dixon, Martin Brudnizki, Woods Bagot and Tara Bernerd, specialising in high end hospitality and residential projects: clients have included Four Seasons Hotels & Resorts, Nobu, Virgin Hotels and Jamie Oliver. She was appointed design director for Soho House in 2016.

How would you sum up the offer at White City House?

We have tried to create a club in West London for a predominantly young, creative community. With the design scheme, we wanted to stay true to the surrounding area and the history of the BBC television centre building.

We studied 1950s and 1960s design endlessly but we've also made the club quite contemporary with the materials and furniture; our colour schemes are bold and playful.

How did you approach the project?

We started this project in the Grade II listed Helios building, which was built by Graham Dawbarn in 1960 and which housed the BBC's headquarters until they relocated in 2013.

It's an amazing and very historic building, which now houses the White City House hotel and gym, as well as private luxury apartments.

There is also a new build element to the project, which houses the Soho House club, but it all started in the Helios building.

We approached the project by walking the site and taking in all of the existing architectural details; the floor finishes, the fluted timber panelling, the beautiful John

ALL PHOTOS © SOHO HOUSE





Linda Boronkay grew up in Budapest. Her father was an architect and her mother was an antiques dealer and collector

Piper Television Centre mosaic mural and the interior façade. These details and the architectural elements of the space were the driving force when we created the scheme for the hotel rooms as well as for the club.

Can you remember your reaction when you first looked around the Helios building?

It was incredible. It's a circular building, which means that walking around it is a very interesting spatial experience. It's something you rarely come across because in most buildings, everything is linear. You almost feel as though you're in a spaceship.

The corridors are curved, and when you're in the gym you have a strong sense of the circular floor space of the room. We really embraced that, and further enhanced the curvaceous shape of the space. The new inserts and areas that we created in the gym also have round walls and rounded joinery.

We created a design scheme for the corridors that's very simple but also full of details inspired by the original reception area. We created interesting timber panelling details while making it our own with a bespoke stain, and we designed a fun terrazzo pattern for our carpet runners inspired by the green floor finish in the reception area. It's very playful.

How did the history of the building inform the design?

We took inspiration from studio atmospheres and old iconic BBC programmes, particularly in the club spaces. In our club reception area we have a high gloss black ceiling, something you often see in television studios. We've used a lot of track, technical-inspired lighting pieces – all of our light fittings in the club and the hotel rooms are bespoke, designed by us.

What are your favourite spaces in the club?

I really love the rooftop. I think it creates a nice sense of escapism. I also love the ninth floor



The ninth floor features a wall dedicated to the late artist Tony Hart, with new artworks by contemporary artists

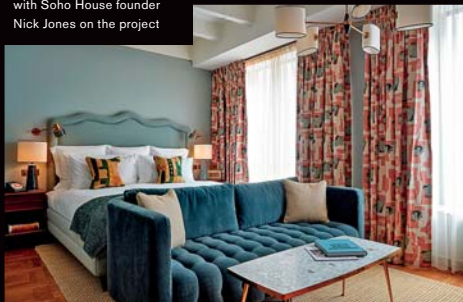
The design team took inspiration from the 1950s and 1960s, while adding contemporary touches





Linda Boronkay worked closely with Soho House founder Nick Jones on the project

White City House features an indoor lap pool in the House Gym as well as the rooftop pool (right); One of the 9th floor spaces (below, right); The hotel has 45 bedrooms



terrace. Those two spaces are quite different from everywhere else in the building.

The ninth floor terrace is quite loungey with the outdoor rug and soft upholstery. It's full of plants and has amazing views across West London. It's a lovely space to sit in.

How much creative freedom do you have with this project?

As a design team, we're fortunate because [Soho House founder] Nick Jones encourages us to come up with new schemes. We are both passionate about interior design, and when we see something twice, that bores us equally.

It's quite risky in a way, because we're always experimenting, but at the same time it's very interesting creatively. It means that we always have to come up with new schemes and make sure that they're relevant to the architecture and history of each specific location. Every single club is different.

Does Nick Jones have fixed ideas about what he likes and doesn't like?

He's very fixed on the fact that everything has to be extremely comfortable and functional. That's something we'll never compromise on.

Nick Jones and I are both passionate about design. When we see the same thing twice, it bores us. It's risky but interesting creatively

Other than that, the process of coming up with the design concept for each new club is a very collaborative one, involving a lot of discussions and workshops.

What makes Soho House clubs successful from a design point of view?

They all have the same DNA in that they have a very strong residential feel. We use a lot of low level lighting, and the spaces are layered with rugs, accessories and antique pieces.

They're also very different from one another though. If you're a member you have all these

choices among the clubs and a huge variety of spaces you can use depending on what you want to use them for.

Where do you get your inspirations?

I'm obsessed with movies. When we work on the design of a club inspired by a particular era or location, I often look to movies for ideas. I also love fashion; I look at fashion magazines almost more than interior design magazines.

Fine art has always been a big inspiration for us with Soho House, and the art collection is a very integral part of our schemes. We work hand in hand with our head of collections.

Where is your favourite place on earth?

I love London because it's the place I've called home since I was 20. I've spent many years abroad but I always come back here. I also love Budapest, which is where I'm originally from. I often go back and I'm always astonished by the beauty of that city.

I called Sydney my home for a few years. There's a romantic part of me that says one day I will return there. I love the tropical environment and the sea and the sun, and the food scene in Sydney is fantastic.

SOHO HOUSE OPENINGS

The Amsterdam club is located in a 1930s building on the Singel Canal. It features 79 bedrooms



Soho House Amsterdam

AMSTERDAM, THE NETHERLANDS

Launched in September 2018 with a party attended by Prince Harry and Meghan Markle, Soho House Amsterdam is located in the six storey Bungehuis building, a former trading office situated on the Spuistraat. The club features 79 bedrooms, a rooftop pool, a floor of club

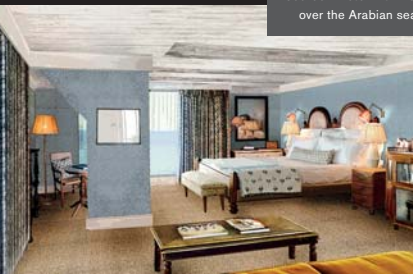
space, a gym and a Cecconi's restaurant and Cowshed spa on the ground floor.

Design details include a fabric clad bar and glazed ceramic tiles in vibrant blue, while the hotel rooms feature restored art deco lighting, original wall panelling and mosaic tiled floors.



We spent extensive time researching the history of Bungehuis and Amsterdam in general in order to come up with design details that are representative and respectful to this stunning building and vibrant, creative city. During this research we discovered a lot of unique architectural elements that we then incorporated into our schemes. We also ended up designing 100 different styles of furniture and 40 models of bespoke lighting designs for this project specifically to create something very special.

Soho House's first club in India includes a 38 bedroom hotel with views over the Arabian sea



Soho House Mumbai

MUMBAI, INDIA

Set in a 10-storey building directly overlooking Juhu Beach, Mumbai House has 38 bedrooms, a library, members' floor, gym, rooftop pool, a 34-seat screening room and two restaurants – Cecconi's Mumbai and The Allis. It is Soho House's first foray into India, and is set to open in November.

In Soho House Mumbai, almost everything you see, feel and touch was created locally with local craftspeople. We spent a lot of time in India traveling around Bombay and Rajasthan, finding people who would be able to make our Indian dream come true. In the end all the bespoke pieces including furniture, lighting, bespoke block patterned curtains, lampshades, rugs and cushions are made locally. So this house in a way is a celebration of India itself and its colourful, unique and diverse culture.

Redchurch Townhouse features 37 bedrooms inspired by 1950s design and a Cecconi's eatery



Redchurch Townhouse

LONDON, UK

Boutique hotel and restaurant, Redchurch Townhouse, opened in October 2018 just two minutes from Shoreditch House. With 37 bedrooms upstairs, and a Cecconi's restaurant downstairs, the facility is open to the public as well as to members. The rooms are all individually designed and inspired by 1950s-1970s style, featuring mid century armchairs and desks, retro chandeliers and floor to ceiling windows.

With Redchurch Townhouse we had a fictional character in mind when we designed the rooms. We envisaged a successful creative, who travels a lot and his or her room is filled with pieces collected over the years during travels. So the outcome is vibrant, eclectic rooms filled with a mix of furniture and lighting pieces not bound to one specific period. On the street level we have Cecconis Shoreditch, which is a young, simpler and fun version of the well-known, established Cecconis brand.



Little Beach House

BARCELONA, SPAIN

Little Beach House opened this summer in the old fishing village of Garraf, 20km south of Barcelona. Featuring Spanish and Catalan-influenced design, it features 17 bedrooms, a restaurant, a bar and a rooftop terrace.

The geometric-patterned tiled rooftop garden overlooks the beach, while the mid-century inspired concrete bar has a green top, with green-white striped awnings and parasols shading the chairs and banquettes. The terrace also has a small Cowshed spa offering facial and body treatments. The bedrooms have red and white triangle-patterned tiled flooring, bespoke rugs, lamps made by a Barcelona ceramicist, and tapestry wall hangings by artist Maryanne Moodie.

The beach-facing club will reopen in February 2019 after a winter break. It is housed in a 1950s building



With Little Beach House our aim was to create a very laid-back and welcoming place that is really simple and effortless. We intentionally simplified our material palette, focusing on some key finishes that we found on site during the first walk around, and others that are typical to Garraf where the club is located. ●

LIVING WELL



Wellness communities are on the rise, as developers, investors, consumers, and even governments are starting to see the benefits of creating and living in spaces dedicated to health. Jane Kitchen takes a closer look at wellness communities in Asia – a region that's primed for growth

Wellness, it seems, has permeated every corner of our consciousness these days, so it's not surprising that the idea of living somewhere that has our health – both physical and mental – front of mind is increasing in popularity.

'Wellness communities', as these places have become known, are on the rise; real estate firms, investors and the public are starting to see the benefits – both financial and physical – of creating and living in areas with a dedication to health.

"We have evolved our conversations from places we would like to visit, to places we may now work, play, heal, learn – and ultimately live," says Mia Kyricos, chair of the Global Wellness Institute's Initiative on Wellness Communities, who is also senior vice president, global head of wellbeing for Hyatt Hotels.

The Global Wellness Institute (GWI) has estimated wellness real estate to be a US\$134bn sector that's growing at a rate of 6 per cent a year – and predicts that it will jump to US\$180bn by 2022. The first-ever dedicated research report on the subject was released in January 2018, and GWI senior researchers Ophelia Yeung and Katherine Johnston called the report "the most important research we've undertaken."

"It's not just because it's a hot new industry market – but because it's about where and how we live," explains Johnston. "Collectively, we must shake up our thinking: healthy homes are as important as immunisations; parks, paths, and plants are as beneficial as prescriptions; friends and neighbours are far more important than Fitbits. All the industries

continued on page 112



1000 Trees

Shanghai, China

OPENING: Unknown

ARCHITECT: Heatherwick Studio

Designed by Heatherwick Studio for the developer Tian An China, 1000 Trees is a mixed-use development 20 minutes from central Shanghai that spans 300,000sq m. It will include housing and offices as well as shops, hotel rooms and a school.

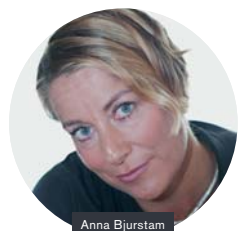
Conceived not only as a building, but also as a piece of topography, 1000 Trees takes the form of two tree-covered mountains, populated by hundreds of columns.

Rather than hiding the columns, which provide structural support, the columns emerge at the top of the building as large planters, each holding a handful of trees.

The 15-acre site is located next to the M50 arts district and a public park. The development is split over two plots of land connected by a narrow government plot and incorporates several historic buildings.

The integrated planting acts as a natural balancing element and the building's edges are lowered to minimise the impact where it meets the art district and park, reducing the discernible threshold between them.

Heatherwick's 1000 Trees mixed use development is under construction in Shanghai, China



Anna Bjurstam

The entire way of living is changing in Asia, and the need for communities is on the rise

that create our home environments – real estate investors, urban planners/designers, architects, transportation planners, the construction industry – play a massive role in human health. And they need to partner to meet the desperate need – and fast-rising demand – for healthier homes and communities.”

The GWI has defined wellness real estate as “homes or buildings proactively designed and built to support the holistic health of their residents,” and has tracked more than 600 projects across the globe, many of which are still in development. Its research has shown that homes in these wellness communities are commanding higher price premiums of between 10 and 25 per cent.

“Our homes and communities have had a massive, increasingly negative impact on our well-being, as they were designed following templates set up decades ago to meet the health and lifestyle needs of a radically different era,” says Johnston. “But now we’re at the beginning of a new movement in home and community design that tackles our uniquely modern problems: sedentary lives, unhealthy diets, stress, social isolation and loneliness, pollution, nature-deprivation, etc – and

it’s creating powerful opportunities.”

The GWI report estimates the market value of wellness communities in Asia at US\$47bn, with a growth rate of 7.3 per cent from 2015–2017, and 293 projects in the pipeline. Malaysia, Singapore, Vietnam, Indonesia and Thailand – countries with a strong wellness tourism sector – are growing, in particular in wellness real estate built as part of a wellness resort.

But it is China, in particular, the report notes, which is poised for robust future growth, driven by a growing middle class along with rising concerns about urban pollution and sprawl.

Anna Bjurstam, vice president of spas and wellness for Six Senses Resorts Hotels Spas, says she’s seen a shift in Asia, with more single women, and more women marrying later and having fewer children – which has big implications for the way in which people live.

“This means that the three generations living together is changing,” she explains. “The entire way of living is changing in Asia, and the need for communities is quickly on the rise – multi-generational living where people can live close to each other, yet not together.”

The Forestias

Bangkok, Thailand

OPENING DATE: 2022

ARCHITECT:

Foster + Partners

The Forestias is a THB90bn (US\$2.8bn), 119-acre green development in Bangkok being developed by Magnolia Quality Development Corporation Limited (MQDC).

The project is a mixed-use, multi-generational lifestyle project that will also incorporate a large forest ecosystem. Set to open in 2022, it will include residential housing, retail buildings, office buildings, a health centre, innovation centre, forest pavilion, community space, learning centre and an



The project focuses on the impact of nature on wellbeing

extensive natural ecosystem.

Foster + Partners have provided consultancy on the architectural masterplan for The Forestias; Six Senses will provide hospitality and residential management, as well as the hotel group’s first

membership club in Asia; and the Harvard T.H. Chan School of Public Health will conduct scientific research and data collection on the impact of the project’s landscape and design features on human health.

The Forestias is based on

four core elements to create happiness: ‘50 Shades of Nature’ – happiness from living amid nature; ‘Connecting 4 Generations’ – happiness from being with family members across four generations; ‘Community of Dreams’ – happiness from space and facilities that allow people to connect and interact with each other; and ‘Sustainability for Wellbeing’ – technology and innovation that drive sustainability and promote health and wellbeing.

Six Senses will create wellness facilities for various types of housing, as well as various community wellness services, and will customise residential units with healthy options like sleep design and advice, and micro-gardens in the kitchens.



Tsao & McKown are behind the design of the Sangha retreat and residential community in Suzhou



Sangha

Suzhou, China

OPENED: 2017

ARCHITECT: Tsao & McKown

Architecture practice Tsao & McKown designed Sangha, a 189,000sq m (2m sq ft) luxury wellness retreat along Yangcheng Lake outside of Suzhou, China, that includes a 69-bedroom wellness hotel, a 6,000sq m (64,583sq ft) spa, a 'learning campus,' and a collection of four-bedroom residential villas and apartments.

Sangha's wellness hotel offers a platform for wellbeing works, including an integrated medicine assessment and treatment centre, mind-body practice, coaching and counselling, spa, medi-spa and mindful dining. The 6,000sq m (64,583sq ft) spa includes treatments from massages to colonics, as well as a hammam, wet spa, steam room, saunas and night walks.

Joy Menzies, managing director of Bangkok-based Destination Spa Management (DSM), says her company is receiving a lot of interest in wellness communities in Asia, with Thailand and Malaysia seeing quite a bit of growth. But Menzies has seen so much interest in these communities from China, that she recently relocated there.

"The Chinese people are asking for wellness communities – there is more demand than availability at the moment," says Menzies.

China is the second-fastest region for growth in wellness communities after the US; problems with pollution combine with a high-stress business culture to create a big demand for wellness. Additionally, the Chinese government has been

prioritising projects that focus on culture and wellness for a few years now, reports Menzies, and this is fuelling the development of wellness-focused communities, though a lack of understanding of and experience in creating true wellness communities means many projects miss the mark.

"The government's drive to insist developers consider the health and wellness needs of their residents hasn't come with any education to the developers on what they should be including or focusing on," explains Menzies.

But with government initiatives in place and further studies in progress through universities and research centres, Menzies hopes there will be more guidance and standards in place in the near future.

"China has great potential to lead Asia in the development of wellness communities, partly due to government initiatives but also because there is a continued need for new housing for its 1.4 billion population – and particularly for retirees. Additionally, in a country of 5,000 hot springs, there are great opportunities to build wellness real estate around these facilities. Against this wave is the sheer size of and speed at which these developments are built. Creating true wellness communities requires in-depth collaboration between every single party involved in a development – from the designer, to the construction teams, to the operators, to the waste management provider to the marketing team."

Chiva-Som

Bintan, Indonesia

OPENING: Unknown

ARCHITECT:

Jean-Michel Gathy

Destination wellness resort Chiva-Som will open its first location outside Thailand, in Bintan, Indonesia, which will also include its first permanent residences.

Chiva-Som Bintan will be located within the wider Treasure Bay Bintan development - a 338-hectare development focused on key pillars including wellness, active lifestyle, community living, sports and organic farming.

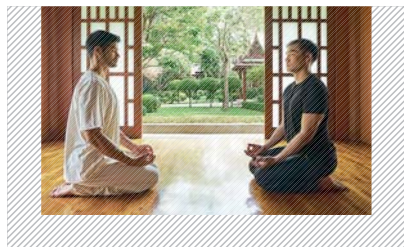
Chiva-Som Bintan will be about 25 hectares when completed, and will house a 70-bedroom wellness hotel, a wellness centre and 34 luxury villas ranging in size from one to five bedrooms. Built amid natural mangroves

and overlooking white sandy beaches, the residences will include access to the resort's spa facility, and owners will have the ability to work with Chiva-Som's staff to create longevity programmes and customised wellness packages.

An on-site organic farm will be part of the project, and visitors can learn and participate in organic farming, as well as enjoy farm-to-table dining.



Jean-Michel Gathy is the architect for the project



Liuzhou Forest City

Liuzhou, China

OPENING: Unknown

ARCHITECT: Stefano Boeri Architects, Milan

After the success of his Vertical Forest in Milan, architect Stefano Boeri is expanding his idea of urban forestry. The Forest City concept is designed to become a model of sustainable growth on a global level, starting with the Liuzhou Forest City in China.

The first Forest City will include offices, houses, hotels and schools entirely covered by plants and trees. Once

completed, the new city will be home to 30,000 people, absorb almost 10,000 tons of CO₂ and 57 tons of pollutants each year, and produce around 900 tons of oxygen.

The project is being built in the mountainous area of Guangxi in southern China in an area covering 175 hectares along the Liujang River. The new green city will be connected to Liuzhou through a fast-rail line used

IMAGE: STEFANO BOERI ARCHITECTS

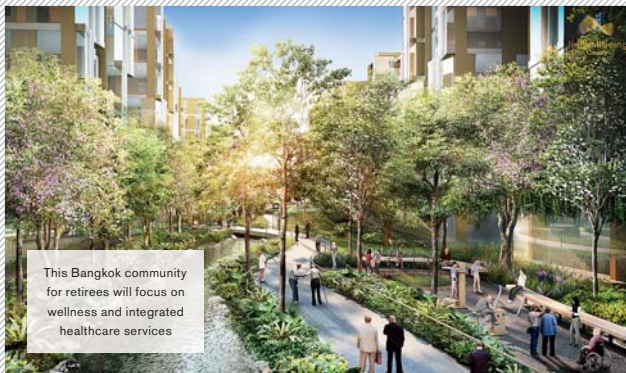


The new city will feature almost a million plants

by electric cars, and will include geothermal energy for interior air-conditioning and solar panels for collecting renewable energy.

Liuzhou Forest City will also host 40,000 trees and almost 1 million plants of over 100 species.

This will allow the city to improve air quality by absorbing both CO₂ and fine dust, to decrease the average air temperature, to create noise barriers, and to help with biodiversity by creating habitats for birds, insects and small animals.



This Bangkok community for retirees will focus on wellness and integrated healthcare services

Jin Wellbeing County

Bangkok, Thailand

OPENING: 2019

ARCHITECTS: ThomsonAdsett, OpenBox Architects

Thonburi Healthcare Group is planning a residential project for retirees in Bangkok that includes integrated healthcare and wellbeing services. Jin Wellbeing County includes 13 seven-storey buildings with a total of 1,300 units, an Aged Care Center for assisted living, and a Wellness Center providing preventive healthcare services for physical, emotional and mental conditions.

Architecture firm ThomsonAdsett, which specialises in universal design, is responsible for the overall project and concept, while OpenBox Architects is handling building design based on a passive ecology concept, focusing on energy saving and maximising natural light and ventilation.

The project landscape encourages

residents to enjoy the best of the nature, with shade trees and a running stream, and to be inspired to enjoy active living. Austrian healthcare service consultant Vamed - which is the parent company of Vamed Vitality World, which runs nine thermal resorts in Austria and Hungary - was hired to plan healthcare services in the project.

The Wellness Center is an eight-storey building that will house a saline swimming pool where residents can enjoy aqua exercise classes; fitness and personal trainers; massage services and spa; a rehabilitation clinic; and retail stores.

There are also activities to promote physical and mental health, such as brain exercise activities, activities in the library to promote lifelong learning, and activities to promote physical flexibility, such as yoga, dance, aerobic, Tai Chi and special exercises designed for senior professionals and retirees. Activities to promote interaction among residents and boost their social skills, including cooking classes, flower arrangement classes, art therapy, music therapy and excursions are also planned.

CHINESE PIPELINE

The GWI estimates wellness real estate in China to be valued at China US\$19.9 bn, with 39 projects in the pipeline. Destination Spa Management, which specialises in concept planning for wellness communities, is currently working on three as-yet unnamed projects in China, which are all very much in the early stages of development:

Hengqin Island, Zhuhai

In the southern region of Zhuhai, this project will be positioned as a wellness community of around 2,200 homes primarily for the over 55s, a 20,000sq m wellness resort and a 5,000sq m community wellness club.

Guilin

This 2,000,000sq m project in Guilin is a real estate development set to include a high-end wellness resort and a natural medicines research institute.

Guangdong

A smaller, high-end development in Guangdong Province in the South, this community will include a dedicated wellness resort, housing for around 200 retirees and 50 family residences.



Qi'n Wellness

Hainan, China

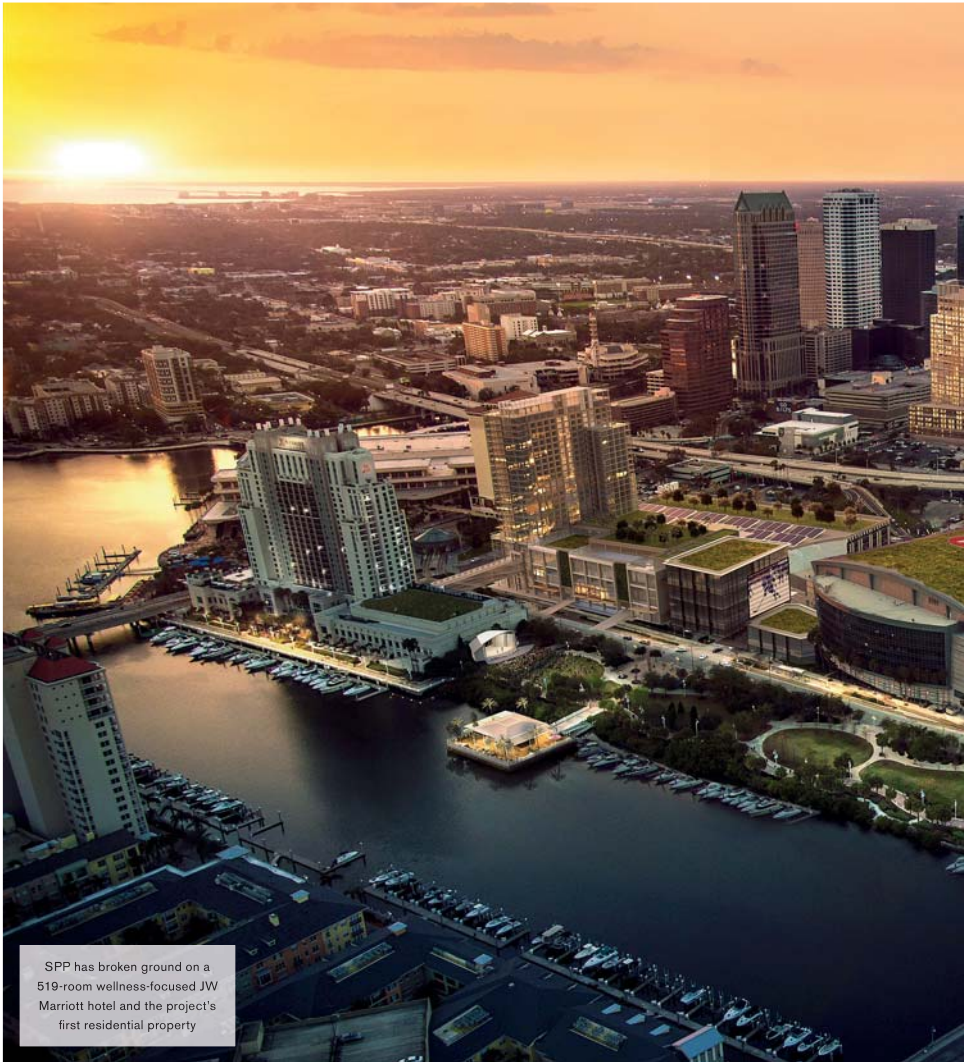
OPENED: 2018

ARCHITECTS: Architects KAA, and interiors A+I

Qi'n Wellness includes 1,000 homes, a residents' club and a 110-bedroom resort, and there are plans for a 10,000sq m (108,000sq ft) destination spa which is yet to be completed. Destination Spa Management (DSM) provided concept planning for the project.

Services at the spa will include diagnostics; holistic health, including traditional Chinese medicine as well as international rejuvenation medicine; physiotherapy; fitness, spa; beauty/grooming; and non-invasive cosmetic procedures. ●

THINKING BIG



SPP has broken ground on a 519-room wellness-focused JW Marriott hotel and the project's first residential property

With new green spaces, walkable streets and design that aims to promote better sleep, nutrition and fitness, a major \$3bn new Florida neighbourhood is taking shape that promises to put the health of its residents first



In Tampa, Florida, in the US, a huge and highly ambitious new neighbourhood is taking shape that is aiming to lead the way for future cities in terms of health and wellbeing.

The Water Street Tampa project will see 50 acres of empty parking lots transformed into a wellness-minded neighbourhood that aims to reconnect Tampa with its waterfront.

It will include 3,500 new homes, 2m sq ft of office space, 1m sq ft of new retail, cultural, educational, and entertainment space, two new hotels (plus one existing hotel which has invested in a range of wellness amenities) and 12.9 acres of new and enhanced park and public space – all designed from the starting point that they should improve the health of their users.

Tampa is perhaps not the first place you think of when you think of sustainable, healthy urban districts. Downtown Tampa is currently congested



SPP CEO James Nozar (above)
The development includes
dedicated spaces for fitness
and wellness activities (below)

Now we're talking about pedestrians as the most important members of the street community

with traffic and not particularly pedestrian friendly, the heat means it can be uncomfortable to walk around and sit outside, and it's not known for its healthy food options.

However, the developers of Water Street Tampa – Strategic Property Partners (SPP), a joint venture co-led by Jeffrey Vinik, owner of the Tampa Bay Lightning ice hockey team – are looking to change that with this ambitious project.

Since joining Bill Clinton at the Clinton Global Initiative to make a commitment towards integrating wellness and sustainability into the project, SPP has teamed up with the International WELL Building Institute™.

IWBI™ delivers the WELL Building Standard™ (WELL™) that focuses on a range of factors that affect our health, including water quality, nourishment, light, fitness and peace of mind.

This collaboration, and the vision for Water Street Tampa, has led to the creation of the WELL Community Standard™ – a district scale companion to WELL. There are many individual buildings designated with WELL Certification, but Water Street Tampa is aiming to be the world's first WELL Certified™ community.

"When our team first learned about the idea of WELL and the impact it can have on improving the lives of the people through the built environment, we were tremendously inspired," says SPP chief executive James Nozar.

"Throughout our planning process for Water Street Tampa, we've challenged ourselves to rethink how to implement the best practices in wellness and sustainability, within the buildings themselves and in the public realm. We're planning for a holistic approach to wellness, including having a supermarket for access to healthy food, water bottle refilling stations, and wide sidewalks."

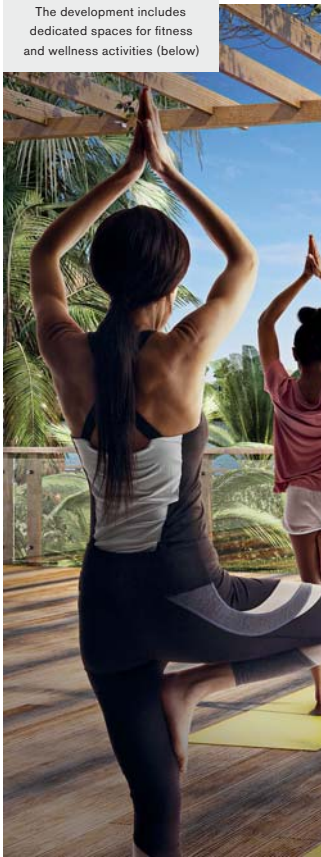
The goal is to create a walkable, connected neighbourhood that promotes fitness, nutrition, mood, performance, sleep and comfort for residents and visitors. The design will focus on better air and water quality, sustainable construction using non toxic materials, access to healthy foods, abundant green space and routes that prioritise pedestrian and cyclist comfort.

SPP will invest specifically in health-related technology and design that will promote wellness, exercise and clean living that meets the WELL Community certification.

PUBLIC SPACES

A range of public spaces are woven throughout the Water Street Tampa district, and these were a key design focus for the team, says Nozar.

"We've given a tremendous amount of thought to how these spaces will be experienced – how we will make it easy and inviting to walk throughout the broader neighbourhood, how we will make it comfortable to dine outdoors year-round, and



Water Street Tampa aims to reconnect Tampa with its waterfront, which is seeing an ongoing transformation



We've given a huge amount of thought to how these spaces will be experienced

how to create spaces for our neighbours to engage with one another in the community," he explains. "Because of this special emphasis, we designed the public spaces first, and the buildings second."

Landscape architecture firm Reed Hilderbrand worked in partnership with Water Street Tampa's master planner Elkus Manfredi Architects on the design of the public spaces. The team designed the public realm around three core aims: to improve connections, to prioritise pedestrian comfort and to provide a wide diversity of public spaces.

Water Street – a historic Tampa street that is being redesigned as part of the project – will run through the heart of the neighborhood.

"We're re-prioritising what used to drive the design of streets," Reed Hilderbrand co-founder Gary Hilderbrand said in a video released by SPP.

"We're channelling the cars — giving them less room, having them stay less time — and creating a whole other type of public realm. Now we're talking about pedestrians as the most important members of the street community."



Kohn Pederson Fox's 815 Water Street has just broken ground



To this end, 60 per cent of the street's use is dedicated to pedestrians, says Nozar.

Water Street will feature a 45-ft-wide landscaped promenade shaded by a double row of mature trees and will include plazas and outdoor spaces for residents and visitors to eat, gather and socialise in. It will also improve the connections from the surrounding neighbourhoods to Tampa's waterfront, and include a range of water features.

A centralised district cooling facility – currently under construction – will serve the neighbourhood's buildings and will free up the rooftops that would otherwise include individual cooling towers. These rooftops will instead feature landscaped green roofs and a range of active amenity



Water Street will feature a 45-ft wide landscaped promenade, with trees to offer shade and improve air quality



WELL COMMUNITY STANDARD™

The International WELL Building Institute™ (IWBI) launched the WELL Community Standard™ last September – designed to help set up a new global benchmark for healthy communities.

A rating system centred on human health and wellness, the new standard takes into consideration evidence-based research and has been developed through consultation with physicians, scientists and public health professionals, as well as architects, city planners and engineers. The programme builds on the principles of the WELL Building Standard™, a performance-based system for measuring, certifying, and monitoring features of the built environment which impact the human experience.

The standard aims to set a new precedent for planning, building and development by providing a “thorough understanding” of how communities can employ actionable strategies and interventions to support the health and wellbeing of residents across all aspects of community life. The WELL Community Standard™ will focus on 10 core concepts of performance that impact human health and wellness – air, water, nourishment, light, fitness, temperature, sound, materials, mind and community.

spaces, such as bars, restaurants, parks and a lounge on the top of the new JW Marriott Hotel.

HEALTHY LIVING

Water Street Tampa will include 3,500 residences, with the first having just broken ground.

Designed by Kohn Pederson Fox (KPF), 815 Water Street consists of two towers, which share a green roof with amenities for residents designed by Miami-based landscape architect Raymond Jungles. Each of the towers will feature a rooftop pool, and they are linked by a commercial building at their base featuring a large grocery store – having a grocery store offering healthy choices that’s walkable for locals was an important part of the original

vision. Cecconi Simone is the interior designer.

“The building has an authentic connection to nature, making those who use it feel better instantly,” says Trent Tesch, design principal at KPF.

Water Street Tampa includes two new hotels – the JW Marriott Tampa, which broke ground in April 2018, and the 157-bedroom Edition Tampa, which is due to break ground at the end of 2018 and which will include condominium units.

A whole floor at the existing SPP-owned Tampa Marriott Waterside Hotel & Marina features Delos-approved Stay Well rooms designed to enhance guests’ wellbeing, including an air purification system, circadian mood lighting and access to Cleveland Clinic’s wellness programmes. ●

6 SHOULD A THOUSAND YEAR WAVE OCCUR, YOU'LL BE COMPLETELY SAFE 9

DIGGING DEEP

Ahead of the opening of Snohetta's underwater restaurant off the coast of Norway, **Andrew Manns** speaks to the design team

Work is almost complete on what will soon be the world's largest underwater restaurant, with the Snohetta-designed project in Norway on track to open in 2019.

Called 'Under', work on the concrete, 600sq m (6,500sq ft) structure, reached a milestone in July 2018 when engineers began the 'sinking process', which saw the building lowered into the North Sea at the southernmost point of the Norwegian coastline by the village of Bål.

The next stage in the restaurant's development will involve shaping its interior facilities and creating solutions for power, ventilation, water, and sewage. Once finished, Under will be something like a submarine fortress, a "mixture of madness and reason" reminiscent of Jules Verne's Nautilus.

Arne Marthinsen, project manager of SubMar Group – which is overseeing Under's construction – said: "Should a thousand-year wave occur, you will be completely safe within the restaurant."

Andreas Nygaard, a project architect on the Under team, told



Andreas Nygaard

CLAD the building specifically features a curved, half meter wall of concrete to deal with what he described as the "biggest challenge": sea waves.

"Under is first and foremost a tribute to the Norwegian coastline," he explained.

"This area is characterised by rugged sea conditions and the building is built to both adapt to and withstand this context. It's very different from anything you will ever see in the Maldives."

Also like the Nautilus of literary fame, Under will double as a scientific centre, a sea lab in which marine biologists will conduct out-of-hours research on fish behaviour.

One of Under's affiliate scientists, Trond Rafoss said: "It's incredibly exciting that we will be able to give the guests a unique insight into the underwater marine life surrounding the restaurant."

Under is currently accepting reservations from April 2019.

Head chef Nicolai Ellitsgaard has yet to reveal the restaurant's full menu, but he has said it would feature traditional Norwegian fare, such as local seabirds, wild sheep, and spiced buckwheat. ●

COURTESY OF SNOHETTA



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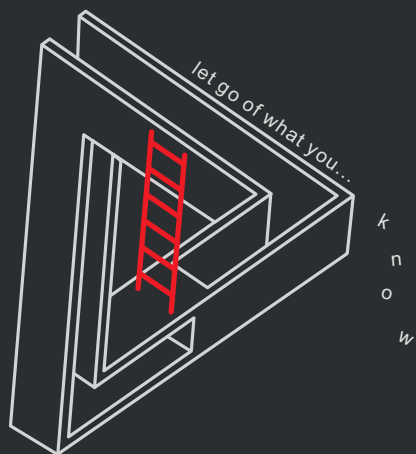
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