

# Water Parks

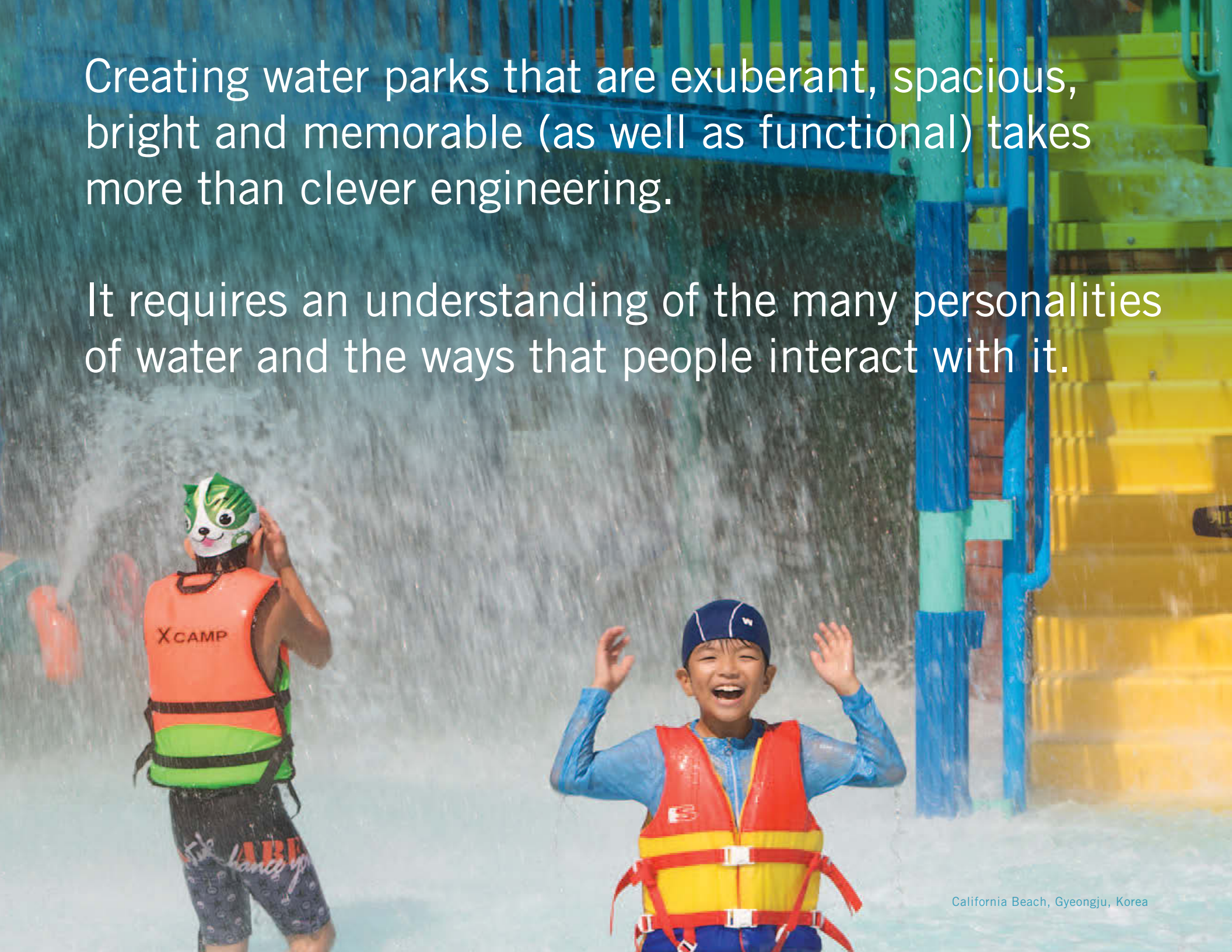
## Creating a Splash





Creating water parks that are exuberant, spacious, bright and memorable (as well as functional) takes more than clever engineering.

It requires an understanding of the many personalities of water and the ways that people interact with it.





“IF THERE IS MAGIC ON THIS PLANET,  
IT IS CONTAINED IN WATER.”

– Loren Eiseley, *The Immense Journey*, 1957

# AN ATTRACTION TO WATER



Center Parcs Les Trois Forêts Village, Moselle, France



Water is one of the most powerful tools a designer has to work with. People are drawn to it. It plays to all of our most basic emotions and it fills us with a gratification that exceeds the delight of the senses.



### THE MAGIC OF WATER

As landscape architects, water has always been an important element in our work. Whether it's a reflecting pool at a resort, the focus of an urban park, or a splash-fountain in a playground or plaza, we like water's ability to change the way people experience the places we create. One thing that especially fascinates us is the enjoyment that water brings. Besides being peaceful and refreshing, water is also recreational – it is possibly the world's first playground. A quiet pond or fountain intended as a soothing landscape feature can just as easily be a noisy impromptu splash-pad. Water is constantly changing in form, mood and colour. It is beautiful and delightful.

In our early work, we felt great satisfaction when we saw people playing in our water features, even when they weren't supposed to. From then on, it was a natural progression for us to start designing water parks, then to make it part of our core business and finally to become leading water park innovators. You could say that we owe it all to the magic of water.

“What would the world be, once bereft  
of wet and wildness?”

– Gerard Manley Hopkins, *Inversnaid*



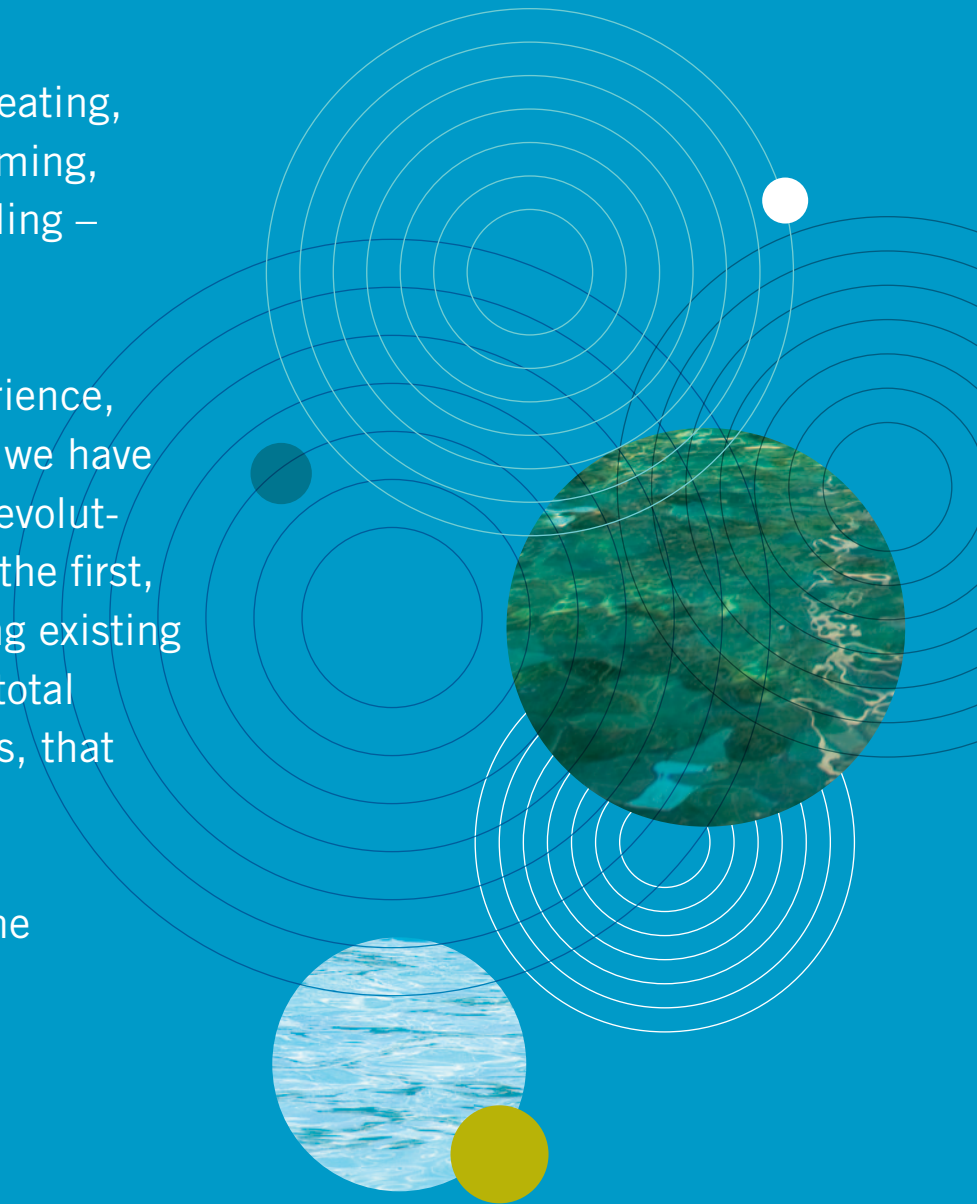


The most important thing to remember about a water park:  
it is a *park*.

At any given moment, there are people playing, eating, lounging and strolling. They might also be swimming, splashing, squirting, sliding, plunging and paddling – or simply enjoying a day out with the family.

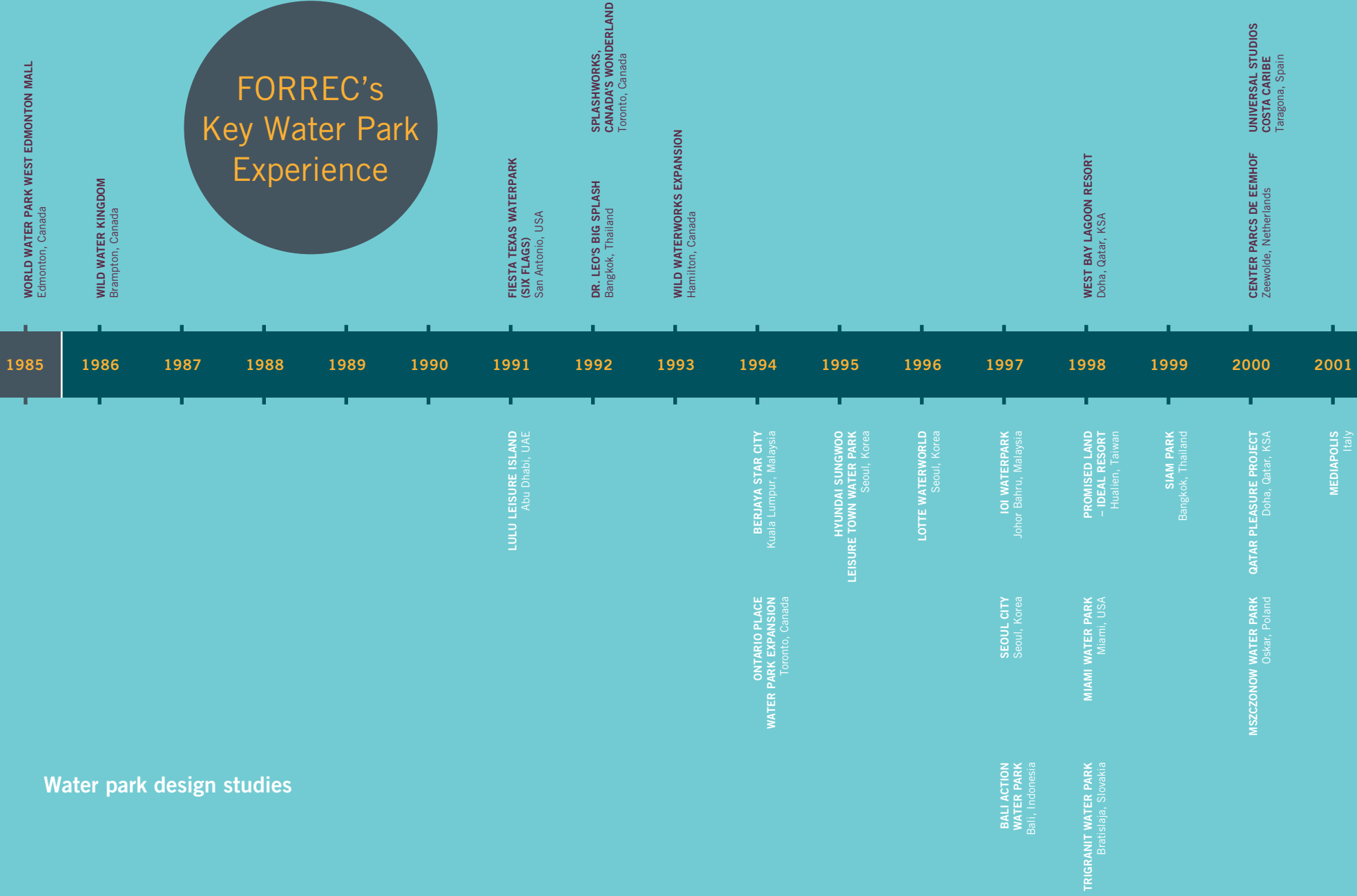
In our 30 years of international water park experience, we have never lost sight of this simple fact. But we have also been innovators in the sector, introducing revolutionary new concepts, designing the biggest and the first, pioneering the wide use of branding, rejuvenating existing successful parks and remembering that it's the total environment, not the accumulation of attractions, that make a memorable guest experience.

We were there at the beginning and we're still the industry leaders.



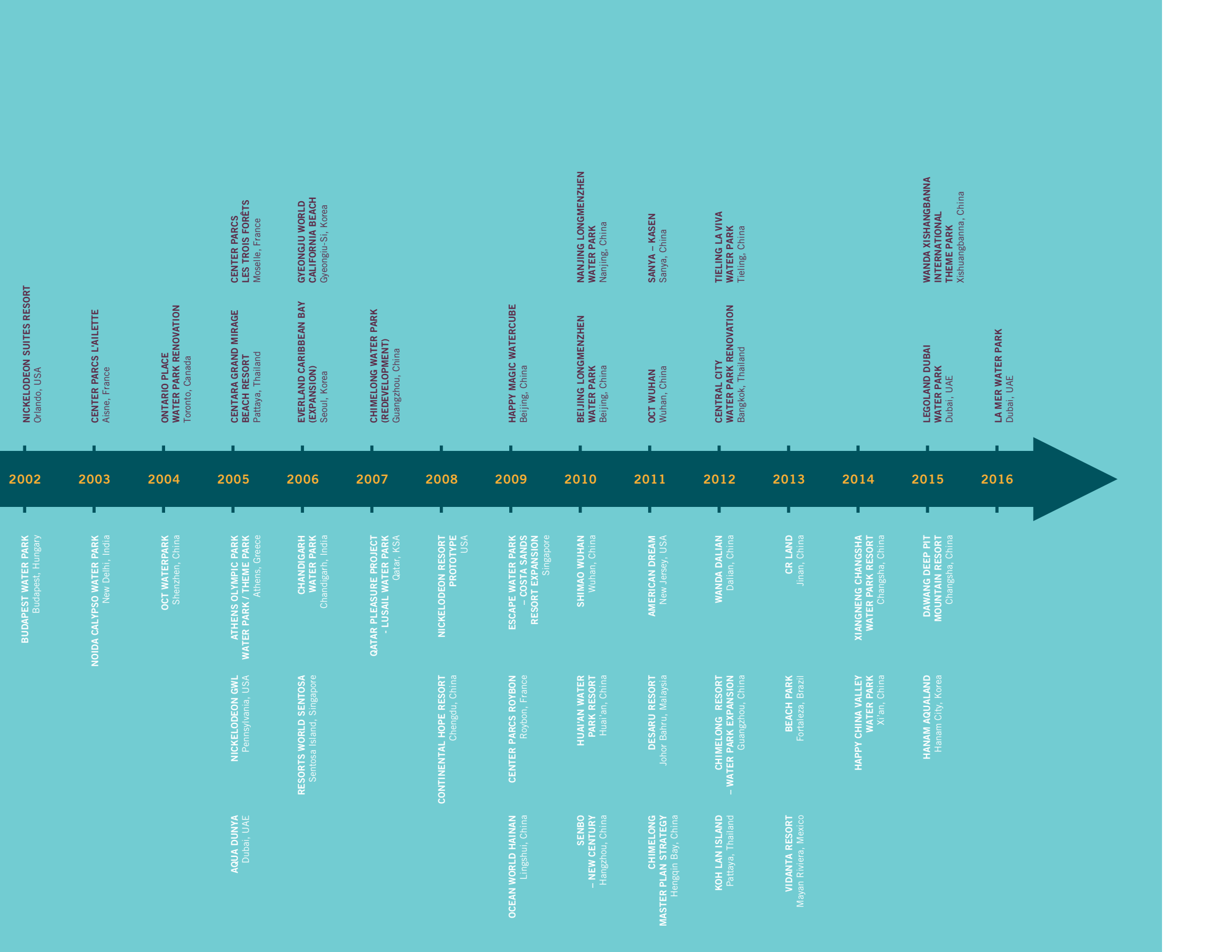
# Water parks in operation or under construction

## FORREC's Key Water Park Experience



# Water park design studies





NICKELODEON SUITES RESORT  
Orlando, USA

CENTER PARCS L'AILLETTE  
Alsne, France

ONTARIO PLACE  
WATER PARK RENOVATION  
Toronto, Canada

CENTARA GRAND MIRAGE  
BEACH RESORT  
Pattaya, Thailand

CENTER PARCS  
LES TROIS FORÊTS  
Moselle, France

EVERLAND CARIBBEAN BAY  
(EXPANSION)  
Seoul, Korea

GYEONGJU WORLD  
CALIFORNIA BEACH  
Gyeongju-Si, Korea

CHIMELONG WATER PARK  
(REDEVELOPMENT)  
Guangzhou, China

HAPPY MAGIC WATERCUBE  
Beijing, China

BEIJING LONGMENZHEN  
WATER PARK  
Beijing, China

NANJING LONGMENZHEN  
WATER PARK  
Nanjing, China

OCT WUHAN  
Wuhan, China

SANYA – KASEN  
Sanya, China

CENTRAL CITY  
WATER PARK RENOVATION  
Bangkok, Thailand

TIELING LA VIVA  
WATER PARK  
Tieling, China

LEGOLAND DUBAI  
WATER PARK  
Dubai, UAE

WANDA XISHANGBANNA  
INTERNATIONAL  
THEME PARK  
Xishuangbanna, China

LA MER WATER PARK  
Dubai, UAE

BUDAPEST WATER PARK  
Budapest, Hungary

NOIDA CALYPSO WATER PARK  
New Delhi, India

OCT WATERPARK  
Shenzhen, China

ATHENS OLYMPIC PARK  
WATER PARK / THEME PARK  
Athens, Greece

CHANDIGARH  
WATER PARK  
Chandigarh, India

QATAR PLEASURE PROJECT  
- LUSAIL WATER PARK  
Qatar, KSA

NICKELODEON RESORT  
PROTOTYPE  
USA

ESCAPE WATER PARK  
– COSTA SANDS  
RESORT EXPANSION  
Singapore

SHIMAO WUHAN  
Wuhan, China

AMERICAN DREAM  
New Jersey, USA

WANDA DALIAN  
Dalian, China

CR LAND  
Jinan, China

XIANGNENG CHANGSHA  
WATER PARK RESORT  
Changsha, China

DAWANG DEEP PIT  
MOUNTAIN RESORT  
Changsha, China

NICKELODEON GWL  
Pennsylvania, USA

RESORTS WORLD SENTOSA  
Sentosa Island, Singapore

CONTINENTAL HOPE RESORT  
Chengdu, China

CENTER PARCS ROYBON  
Roybon, France

HUIJIAN WATER  
PARK RESORT  
Hui'an, China

DESARU RESORT  
Johor Bahru, Malaysia

CHIMELONG RESORT  
– WATER PARK EXPANSION  
Guangzhou, China

BEACH PARK  
Fortaleza, Brazil

HAPPY CHINA VALLEY  
WATER PARK  
Xi'an, China

HANAM AQUALAND  
Hanam City, Korea

AQUA DUNYA  
Dubai, UAE

OCEAN WORLD HAINAN  
Lingshui, China

SENBO  
– NEW CENTURY  
Hangzhou, China

CHIMELONG  
MASTER PLAN STRATEGY  
Hengqin Bay, China

KOH LAN ISLAND  
Pattaya, Thailand

VIDANTA RESORT  
Mayan Riviera, Mexico



# RE-INVENTING THE WATER PARK

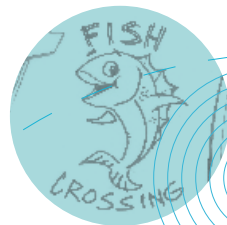
Rush-hour  
should always be  
this much fun

## RE-IMAGINING THE WATER PARK, FROM THE TOP DOWN

For **Kimhae Water Park** we rethought the whole water park idea from the bottom up – or, more accurately, from the top down. We based our design solution on two innovative ideas:

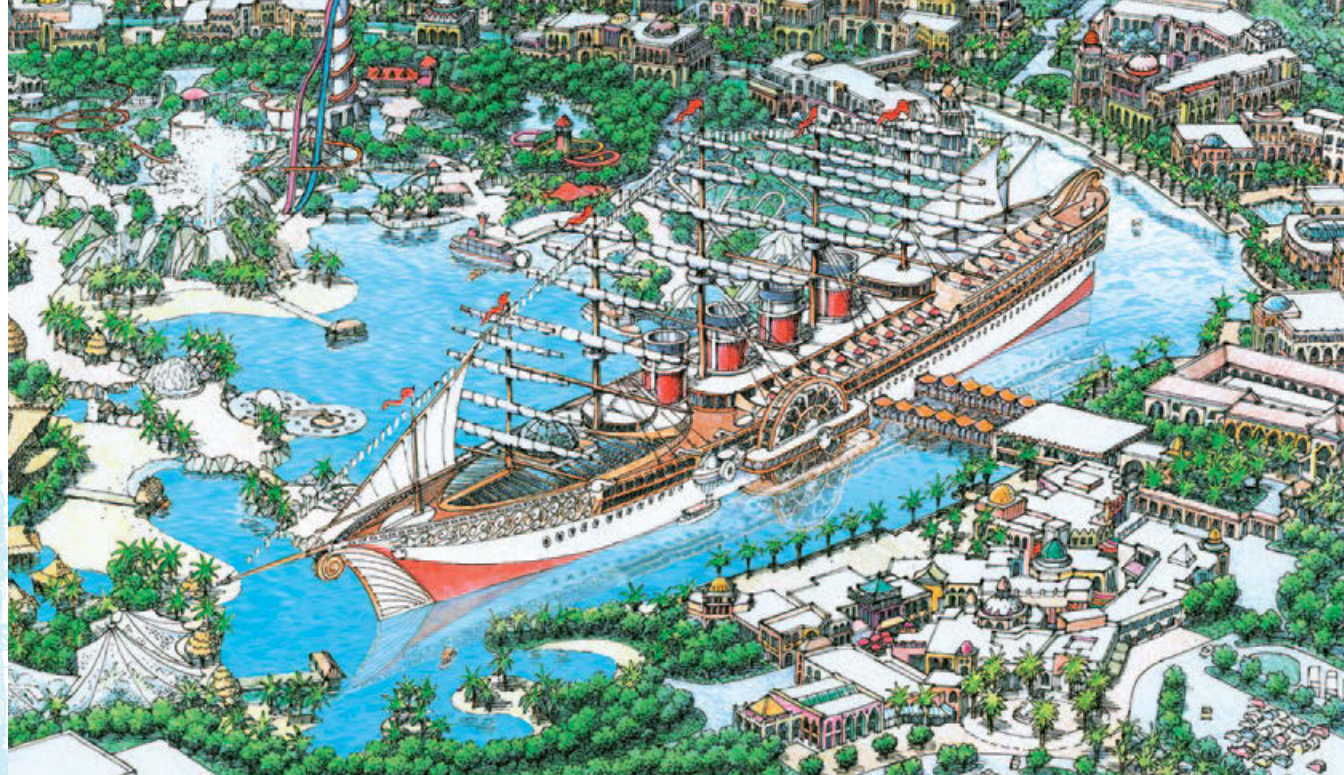
1. Putting a circulation system at an upper level so guests could slide down to attractions rather than climbing up to them; and
2. Creating a completely themed environment, based on a strong storyline, rather than off-the-shelf rides and equipment.

Challenging the traditional standards and writing a great storyline helped to make this a stand-out project, not only in the competitive Korean market, but internationally. Kimhae is not just a water park, but a whole new way to have fun.





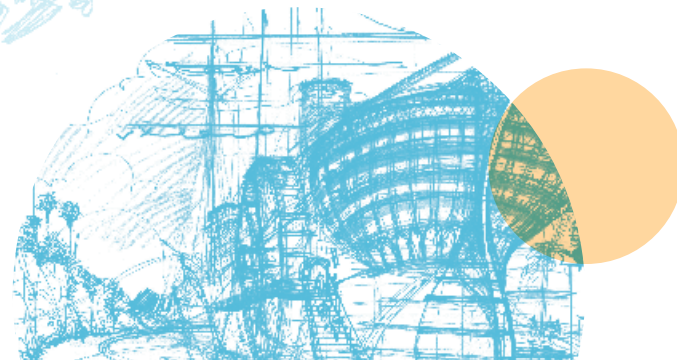
At the heart of this giant resort, we created the world's largest landlocked ocean liner – grander than the Queen Mary.



**SUPER-SIZED AND AMBITIOUS –  
A COMPLETE DESTINATION RESORT.**

The Arabian Desert might seem an unlikely location for a super-sized water park, but the Emirate of Dubai thrives on superlatives. So, at [Aqua Dunya](#) we used our “Big Idea” design approach to create a huge idea – literally. At the heart of this giant resort, we placed the world's most majestic landlocked ocean liner –

larger than the Queen Mary – as a combination central icon, hotel, indoor water park, leisure environment and entertainment attraction. As a complete destination resort, Aqua Dunya elevates the idea of the water park to a grand, luxurious scale.







## FORREC FIRSTS

“The World Water Park is the world’s largest indoor water park, built in 1985, with a size of over 20,000 square metres (4.9 acres). The park has the world’s largest indoor wave pool.”

– [en.wikipedia.org](https://en.wikipedia.org)

### STILL THE FIRST AND STILL THE BIGGEST

With our very first major water park project, we set the bar impossibly high. **West Edmonton Mall** in Edmonton, Canada was then, and remains today, the largest indoor water park in North America – and one of the largest in the world. Even in those early days, FORREC was one of the few companies that masterplanned projects. Instead of locating equipment around a series of pools, we were designing complete water environments – developing a program, telling a story and planning the park according to the best practices for operations, guest experience and site opportunities. In 30 years, this has not changed at all.



## The first fully integrated water park and theme park



### TWO PARKS, ONE GATE

An old gravel quarry in Texas presented the opportunity to create the first fully integrated water and theme park. Traditionally theme parks have always been separate from water parks. At **Fiesta Texas** in San Antonio, guests can visit both parks through a single gate. Thanks to this planning innovation, there's no need to leave one park to get to the other. Guests can flow freely between them throughout the day, providing more entertainment options, great interaction, longer stays and, for the park operators, the efficiencies of a shared program.

As you might expect of a park in Texas, the features are big and bold. From the tall slide towers, there is a spectacular view of the entire combined park.

# MAKING THE BEST BETTER



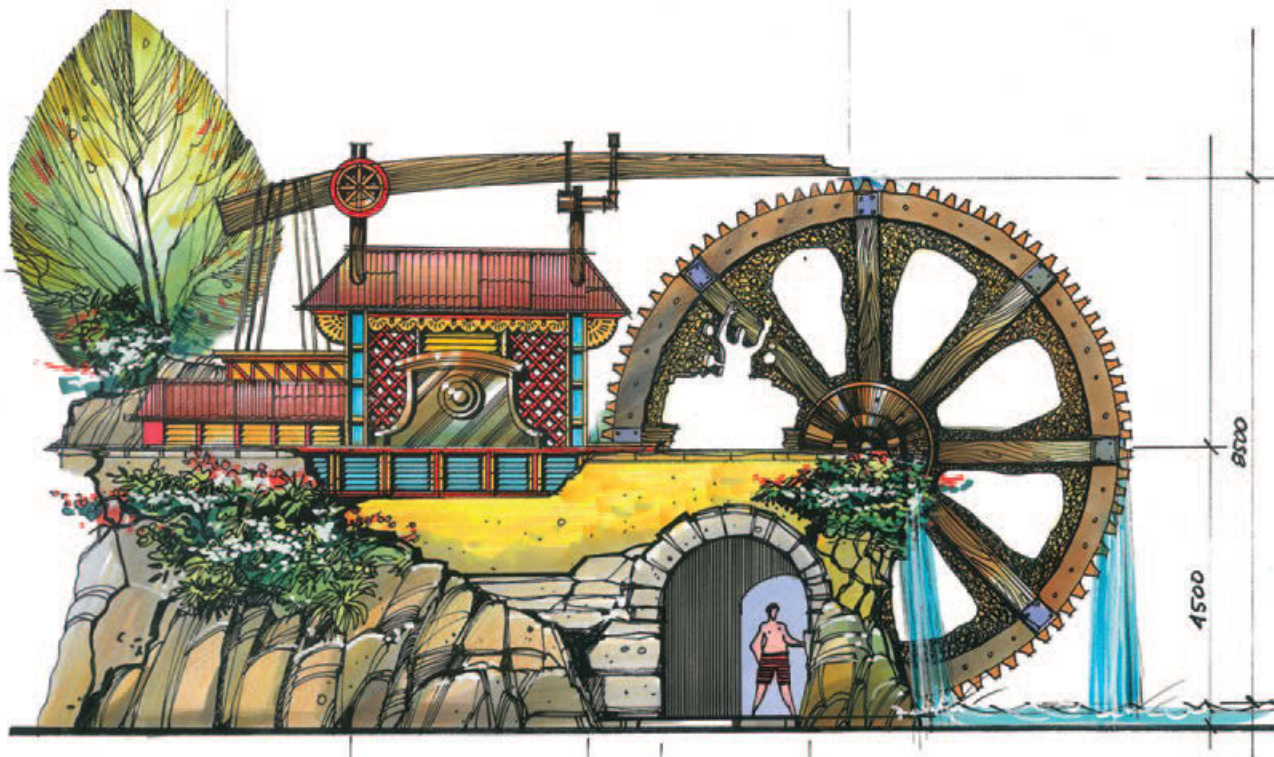
## BUILDING ON SUCCESS

Working with successful water parks and helping to make them even better has become a FORREC specialty. When we were approached by **Chimelong Water Park**, in Guangzhou, China – the most successful water park in Asia, and one of the largest in the world – it wasn't to expand their water park, but to improve the efficiency of the existing park. The scope of work included the addition of major new

attractions, the creation of new park entrances, improvements to circulation patterns and the addition of new change facilities, containing 20,000 lockers. The park continues to be successful, not only because it provides exciting attractions, but also because it puts guest comfort first.







BEING ON TOP AND STAYING ON TOP REQUIRES NEW THINKING – NOT JUST NEW RIDES.



### LOOKING BEYOND THE CATALOGUE

One of the most successful water parks in the world, Samsung Everland asked FORREC to help them stay ahead of the competition by applying some Big Idea thinking. Instead of just adding the highest, fastest and greatest new water park ride from a catalogue, Everland was looking to expand their **Caribbean Bay** in Seoul, Korea with entirely new experiences.

Knowing that installing the hottest new rides would only provide a short-term advantage, FORREC worked with Everland to develop a comprehensive themed approach. The first

step was to create a new and entirely unique high-capacity attraction. Then we designed a master plan with a mix of program elements – attractions, food and beverage, circulation, toilets and rental cabins – to accommodate increased attendance. Everland continues to maintain its position, ahead of the competition, in Korea and throughout the world.





A BRAND ATTRACTS VISITORS – WHETHER IT’S AN ESTABLISHED WATER PARK BRAND, OR A POPULAR BRAND MAKING ITS DEBUT IN A WATER PARK ENVIRONMENT.

## WORKING WITH BRANDS

**nickelodeon** SUITES  
RESORT



### THE POWER OF BRANDING

In 2004, the branding of water parks was a fairly recent idea that offered plenty of new marketing opportunities. So, in order to shore up sagging occupancy rates in an increasingly competitive hotel market, Nickelodeon created a new kind of water park resort: **Nickelodeon Suites Resort** in Buena Vista, Florida. FORREC was called in to visualize this hybrid product – a heavily-themed, branded water park resort destination.

The **Nickelodeon Suites Resort** provided a new way to conceive of a water park. Bringing two-dimensional TV cartoon characters to life in a three-dimensional world was a welcome challenge and the result was a very popular family-oriented one-stop vacation experience, with a water park at its core.

The Nickelodeon brand, with its strong family appeal, was a perfect fit for the water park.



The Center Parcs brand gets stronger with each exciting new water park.



Center Parcs Les Trois Forêts Village, Moselle, France



## RELATIONSHIPS THAT LAST

**Center Parcs** is the world leader in the creation of water park resort destinations. A new resort emerges every few years under the Center Parcs brand. FORREC has been a valuable member of the Center Parcs team, providing master planning, creative designs and technical know-how, along with independent, experienced advice.

As successful park operators, Center Parcs is aware of every aspect concerning the guest experience and the effective running of a water park. This wisdom, combined with FORREC's creative input and global experience, has created an ongoing professional relationship that has already produced four unique resort water park projects.



## FEASIBILITY REVIEW AND CAPACITY ANALYSIS

### Understanding the demand

With 30 years of water park planning and design experience, our principals are well versed in the business aspects of the industry. We are able to converse with and work hand-in-hand with feasibility consultants to review statistics and market analyses, and to distil the park capacity numbers into the benchmarks for the park's overall physical program and sizing.

## MASTER PLANNING

### A development guidebook

To accommodate typically large water park crowds and to guarantee their comfort and safety, careful master planning is crucial. The Master Plan describes the park's organization and circulation, along with the relationship of its individual parts, allowing some flexibility over time. The Master Plan serves as a foundation and a source of reference for design and construction, a measuring-stick for the completed project and, finally, a guide for the park's evolution and growth.

# DESIGNING SUCCESS

## PROGRAM DEVELOPMENT

### From raw numbers to buildable reality

The Program provides the link between the water park's requirements and the Master Plan. It describes, in simple numbers, the unique guest elements and facilities that will provide an efficient and profitable park operation. Careful consideration is given to the expectations of the target audience and to the attendance fluctuations for indoor and outdoor park components. The goal is to create a park that is well balanced, correctly sized, appropriately budgeted and aimed at the right market.

## STORYLINE AND THEMATIC DEVELOPMENT

### Stories provide identity and connection

Individually themed attractions are common sights in water parks, but only recently have the parks begun to explore overall storylines and themes. The introduction of connecting storylines, right from the initial design stage, allows the park to establish a unique character and identity that make the project stand out. A water park with a strong and unique identity is one that guests will remember.

## INTERIOR DESIGN

### Visitor comfort comes first

Interior design brings the theme indoors and ensures the efficiency of the water park's food and beverage service, retail spaces, and service areas. FORREC's in-house interior design team provides a spectrum of services, from space planning through to construction. Indoor water parks benefit from the collaboration between FORREC interior designers and our other disciplines – all attuned to the Big Picture ideas of the water park, but never losing sight of its technical requirements and budgetary considerations.






## RIDE/ATTRACTION SELECTION AND THEMING

### Limitless possibilities

Since FORREC is independent from water park suppliers and manufacturers, we are not restricted to any single source of rides and attractions. We draw on the widest selection available locally and world-wide – or design and theme unique one-off attractions – to produce water parks that set entirely new design directions. Our clients benefit from tighter budget control, as well as guaranteed quality, reliability, adaptability and deliverability. We offer full coordination services from selection and integration right through to tendering and onsite direction.

## ARCHITECTURAL DESIGN

### Ideas in three dimensions



Creating water parks that are elegant, spacious, light-filled and functional requires more than simple engineering; architectural finesse is required. For indoor parks, the best enclosures are transparent and adaptable for cold- and warm-weather conditions. In outdoor parks, structures must be attractive and human-scaled. In every case, FORREC's in-house architectural teams are skilled at creating water parks that balance function, technology and comfort.

## LANDSCAPE ARCHITECTURE

### A water park is still a park.

It's not difficult to see the connection between water parks and landscape architecture. After golf courses, water parks are probably the most landscape-oriented entertainment experiences that there are. Our very first water park, at West Edmonton Mall, was really an extension of our landscape architecture practice and, for all our water parks since then, we have relied heavily on our landscape background to provide some of the most memorable, most human-scaled and best-planned parks around the globe.

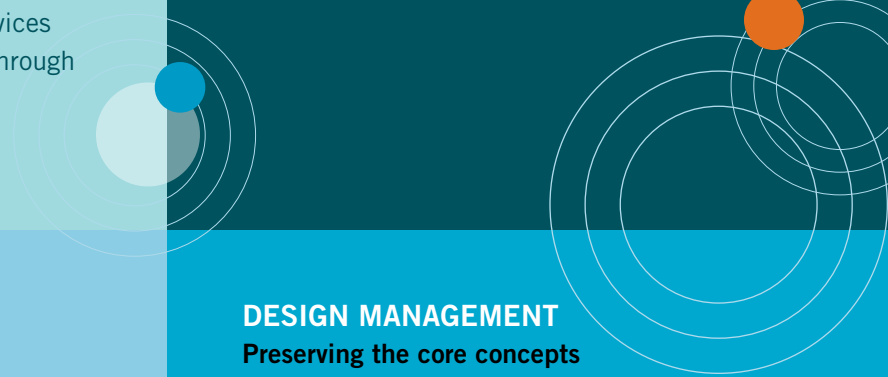
## GRAPHICS AND WAYFINDING

### Information and character

To extend the creative concept throughout the water park requires the talents of many design professionals. Signage and graphic design take on the functional tasks of providing information and direction, while blending with the character of the park. Larger signs and graphics can be especially useful in establishing mood, by using special materials, textures and colours, with or without text.

## DESIGN MANAGEMENT

### Preserving the core concepts



In a successful water park, the core design ideas are evident in every aspect of the guest experience. FORREC's Design Management service ensures that the Big Picture concept survives until the finishing details are applied. Our familiarity with the construction materials and methods unique to the water park sector is especially important. On our client's behalf, we can monitor drawing packages, provide on-site leadership, direction, supervision and staff, to work closely with clients, construction managers, local design teams and contractors – anywhere in the world.

# Case Studies

Water parks are wonderful fun-filled places, where families can spend the day (or several days) splashing or lounging in carefree enjoyment. The design and construction of water parks involves many “backstage” elements – administration, mechanical systems, safety considerations, hydraulics and structural engineering, for example – but it’s the memorable guest experience that really matters.

In great water parks, such as those on the following pages, the invisible aspects are creatively and deftly handled so that they remain invisible and the visitor experience is never less than wet, wonderful and worth enjoying again and again.




A young boy is sitting in a white water slide tube, surrounded by lush tropical foliage and a stone wall. The scene is vibrant and colorful, with large green leaves and orange flowers in the foreground. The boy is holding a white ball. The background features a stone wall and more water slide tubes.

CENTARA  
GRAND MIRAGE  
BEACH RESORT

A Jungle Story





The water park,  
the landscape and  
the story animate  
the whole site.

**CLIENT** Centara Hotels and Resorts  
**LOCATION** Pattaya, Thailand  
**OPENED** 2009  
**DURATION** 2005 to opening  
**SIZE** 2 ha. (including hotel)  
**SCOPE** Site master planning  
Project theming  
Design development and construction documentation of:  
- site landscape architecture  
- architecture of the Beach Club  
- signage and wayfinding  
Project graphics  
On-site art direction through to opening day



Guests at Grand Mirage aren't just visiting a hotel.  
They are characters in a romantic jungle story.



### THE OPPORTUNITY

#### A new breed of water park

An old client, familiar with our work as landscape architects, asked us to provide comprehensive landscape design services for the pool and gardens of a new hotel: The Centara Grand Mirage Beach Resort in Thailand. But when we saw the site, the word “comprehensive” took on a whole new meaning. Here was a stunning opportunity to create an “active” landscape – part landscape architecture, part water park and part themed environment – something really distinctive that would set this hotel apart from the many other competing beach hotels – and create an entirely new resort experience.

### THE BIG IDEA

#### Develop a great story

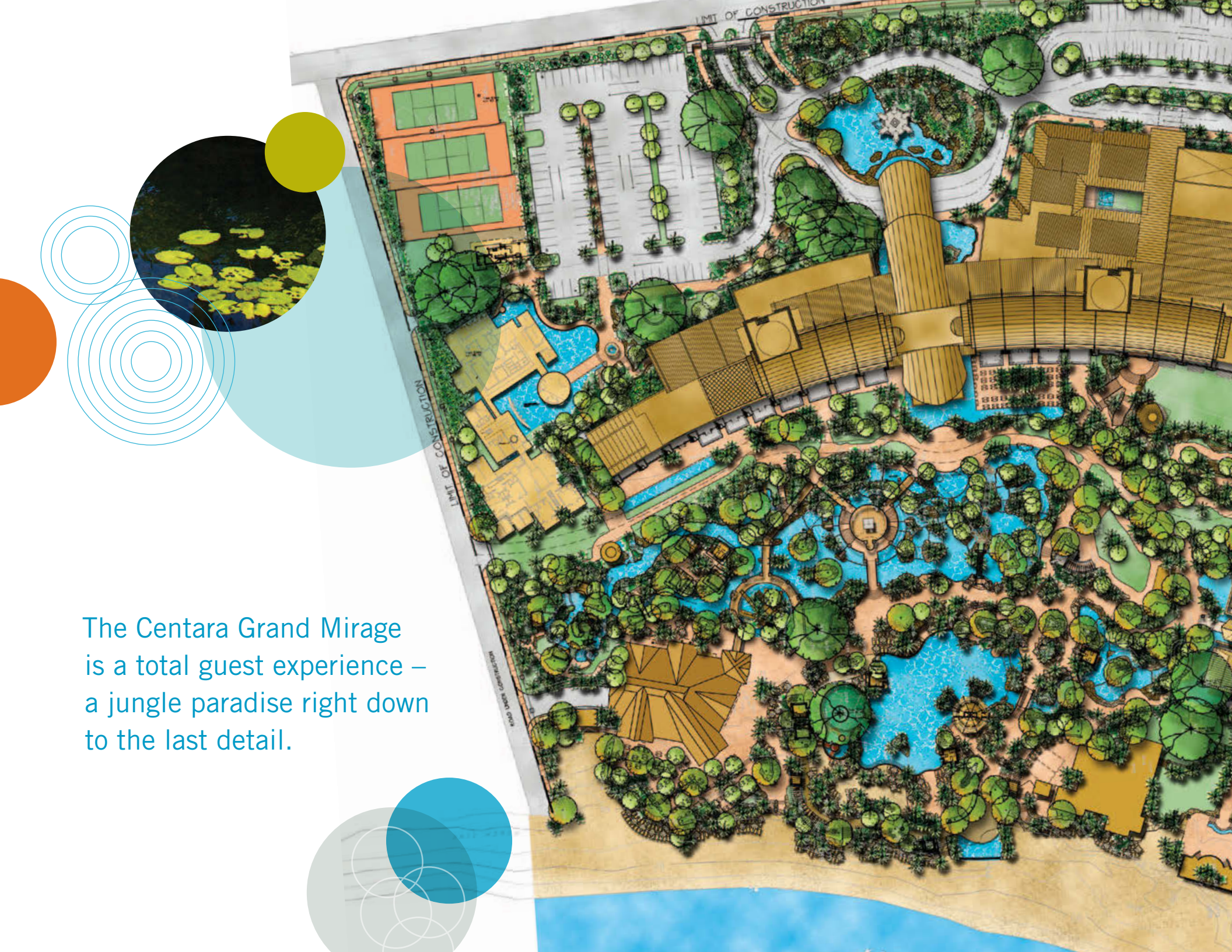
The site is spectacular: a tropical beachfront, with crystal blue waters and golden sunsets. But adjacent resort hotels have equally spectacular sites. So to compete successfully, the Grand Mirage needed something more than a nice garden and a pool. FORREC responded by creating a complete experience: a romantic adventure story based on a dark jungle mystery and a celebration of nature. The story quickly expanded to include the whole site: hotel, entry gate and garden. The scope of the project blossomed from a pool and garden to an epic adventure story of a lost jungle paradise.

### A TOTAL ENVIRONMENT

#### Escaping into a jungle fantasy

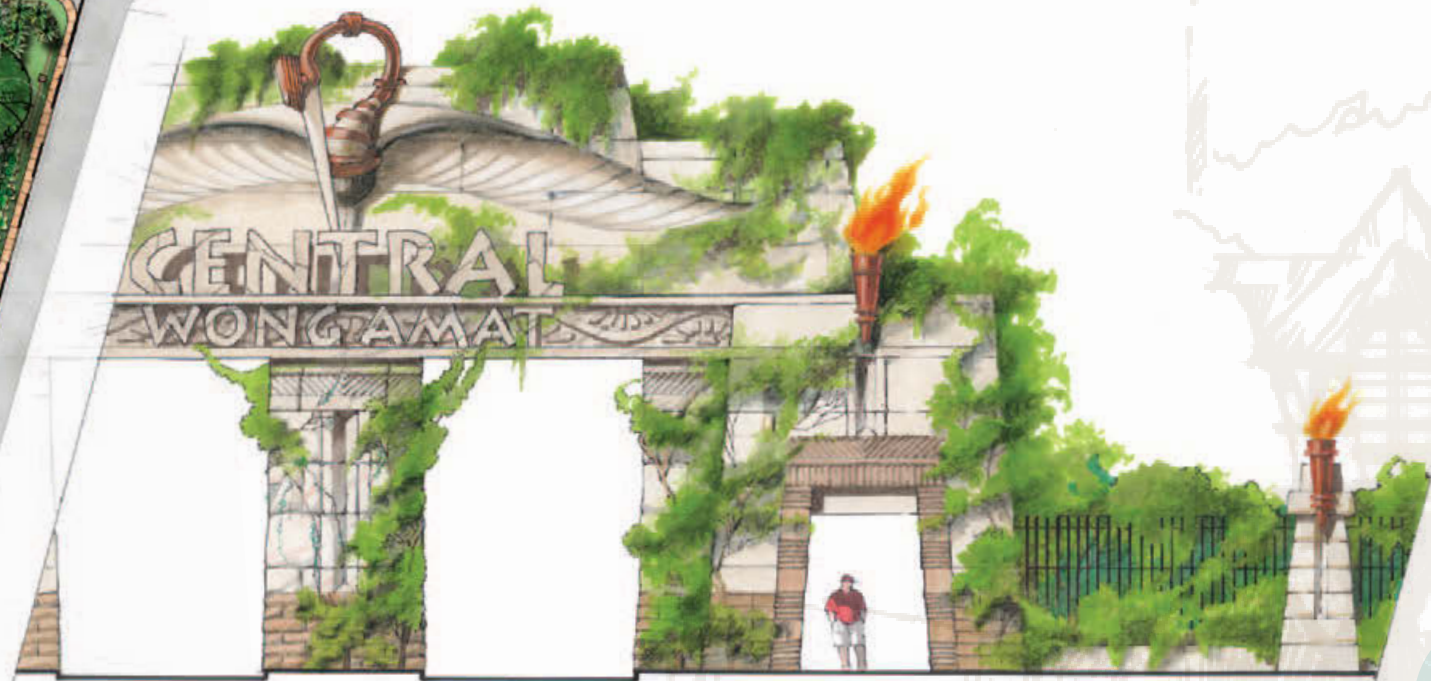
Instead of attaching the garden to the hotel, the hotel is treated as an element within the garden – a lush tropical landscape that begins at the front gate, envelops the hotel and flows right down to the beach. The site tells the story of an ancient tribe that revered and celebrated nature. Centara is a re-imagining of their lost jungle world. The active part of the jungle adventure – the Water Garden – steps down from the lobby, through forests, gardens, rivers, chutes, cascades and pools, all connected by meandering wooden walkways and treetop bridges.





The Centara Grand Mirage is a total guest experience – a jungle paradise right down to the last detail.





## THE DETAILS

### All things considered

A strong storyline, carried through into all of the design details, can not only unify a project: it can also give a foundation and direction to the design of the experience.

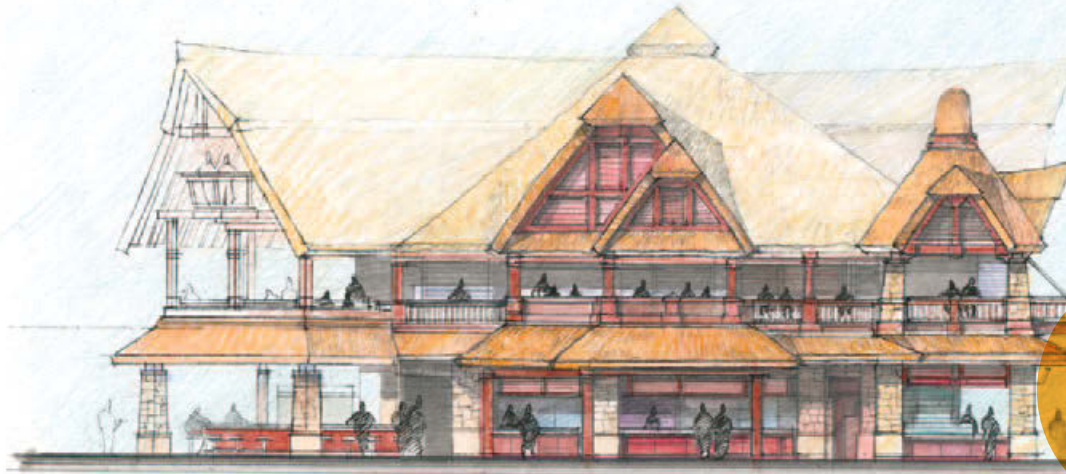
At Centara, the theme reaches into every aspect of the project, from architecture and landscaping to restaurant menus. FORREC called on the skills of its architects, landscape architects, interior designers, theme designers, graphic designers and writers. No detail was left unconsidered.

The design of the jungle Water Garden – the most elaborate part of the project – required many models, sketches and scaled drawings to work out the complicated three-dimensional sequences of spaces.

The design even extended to site programming. On the Ceremonial Platform, an imposing stone totem, consisting of carved animal figures, is topped by a large torch. Every evening at twilight, initiated by a gong, a costumed procession weaves through the garden and the gathered guests, to light the torch with a ritual flame. Colourful, mystical and romantic, the ceremony brings the theme to life.



Centara Grand Mirage is at the forefront of a new generation of water parks and resorts that satisfy an increasing demand for better more immersive experiences.



#### **SPECIAL ELEMENTS**

##### **Not just another hotel pool**

The Water Garden is a jungle sanctuary of tropical plants, water and special features:

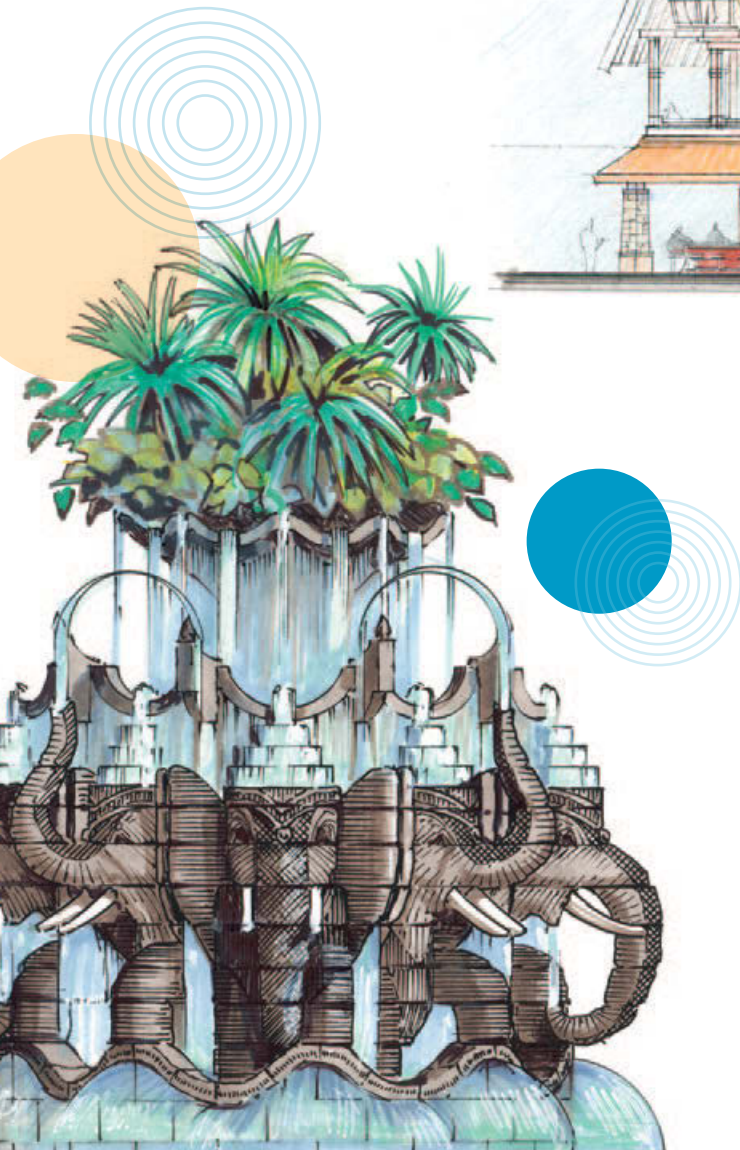
- The Ceremonial Platform, with its sculptured totem, presiding over the park and introducing the jungle adventure.
- White Tiger Falls: a shaded observation platform that overlooks shallow waterfalls and pools interconnected by body slides.
- The Oasis Pool with swim-up bar.
- The Reef: a children's pool and play area.
- The Jungle River Adventure Zone, with its Lazy River tube ride, weaving through the Garden and connecting The Menagerie play structure, Bamboo Chutes and sports pool.

#### **RESULTS**

##### **A real competitive advantage**

The jungle-themed environment was so well received by the client that the storyline was carried through to all aspects of the hotel and site operations, from the entry gateway to the lobby, interiors and even down to the site buildings, signage, graphics, menus and room keys. The final product included the landscaping of the whole site and, of course, one of the most romantic, most exciting, most distinctive water parks anywhere.

With such a strong and romantic identity, Centara Grand Mirage enjoys an enormous advantage over other 5-star hotels in the increasingly competitive Thai hotel market.





Mysterious totems and a torch ceremony continue to honour a long-ago promise of giving the night away to the animals of the jungle.







ENTRADA AL PARQUE

REGGAE CAFÉ

EL GRAN CARIBE


COSTA CARIBE

The New Spanish Benchmark

TOBOGANES ACUATICOS

UNIVERSAL STUDIOS JAPAN 10421 KM



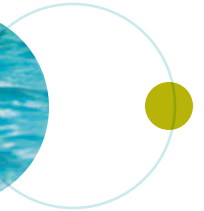


A major objective was to create Europe's first fully integrated water park/theme park.

<b>CLIENT/DEVELOPER</b>	PortAventura Universal Studios La Caixa
<b>LOCATION</b>	Salou, Spain
<b>OPENED</b>	March, 2002
<b>DURATION</b>	16 months from green light to opening
<b>SIZE</b>	34,000 sq. m.
<b>SCOPE</b>	Strategic master planning Expansion concept design and schematic design Detail design On-site art direction through to opening day
<b>CONSTRUCTION COST</b>	\$25 million (\$US)



When Universal Studios asked us to help them create Costa Caribe water park at PortAventura, we looked at the entire scope of the project – the site, the existing theme park and the water park.



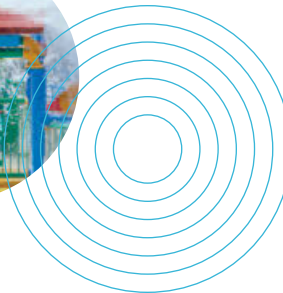
## THE OPPORTUNITY

### A new Spanish benchmark

Universal Studios wanted to develop a diverse world-class destination resort on the Mediterranean coast south of Barcelona. Costa Caribe water park (now called PortAventura Aquatic Park) was designed to increase the draw of the PortAventura Resort by providing a major new facility that would:

1. Operate either as a standalone gated water park or as a complement to the adjacent dry park (with two entries).
2. Appeal to all age groups.

3. Extend the season with an indoor water park, offering hotel guests a desirable amenity during the shoulder seasons.
4. Establish a new benchmark for the Spanish market by creating a level of quality consistent with the PortAventura property.



## THE BIG IDEA

### Second gate. First rate.

The breakthrough idea was to develop the water park as an integral part of the existing theme park: both a new entertainment area AND a new park attraction. To accomplish this, a second gate was added to PortAventura, serving the theme park and the water park jointly. Theme park guests could now enjoy an additional attraction on their single multi-day ticket (increasing the length of stay) and the newly-built resort hotels would have a new draw to increase occupancy, particularly during the shoulder seasons. As a final bonus, the sharing of facilities meant significant cost savings to the client.



The siting of the park presented a considerable challenge – the existing park sits on top of a hill, and the available area was steeply sloped.



## THE MASTER PLAN

### Intended consequences

The overriding planning goal was to increase efficiency. By locating the water park near the existing guest arrival and ticketing areas, it became accessible from outside and inside the park, convenient to the resort hotels and easily available to the existing infrastructure. Furthermore, by reorganizing the existing gate operations, duplicate ticketing processes were avoided. To reduce any possible impact of the new park on the existing operations, the car park area was streamlined and reconfigured, so that future parking demands could still be met as demand increased.

## THE PROCESS

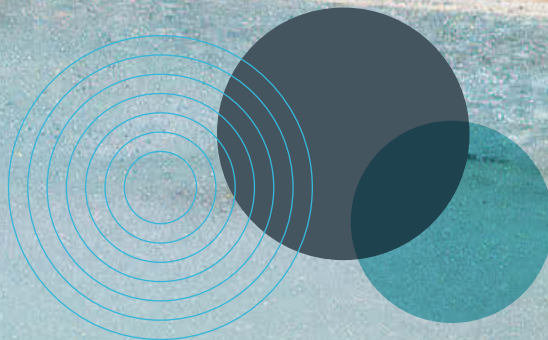
### Working together

Costa Caribe was accomplished through strong collaboration between the FORREC team and PortAventura's in-house New Projects Team. From storyboarding through to construction documentation and site supervision, FORREC's illustrators, storywriters, master planners, landscape architects, architects, interior designers and graphic designers worked hand-in-hand with the client and experienced sub-consultants to deliver a world-class water park.






At the wave pool beach, guests can relax while looking out over the ruins of a Caribbean fort and beyond to the Mediterranean Sea.



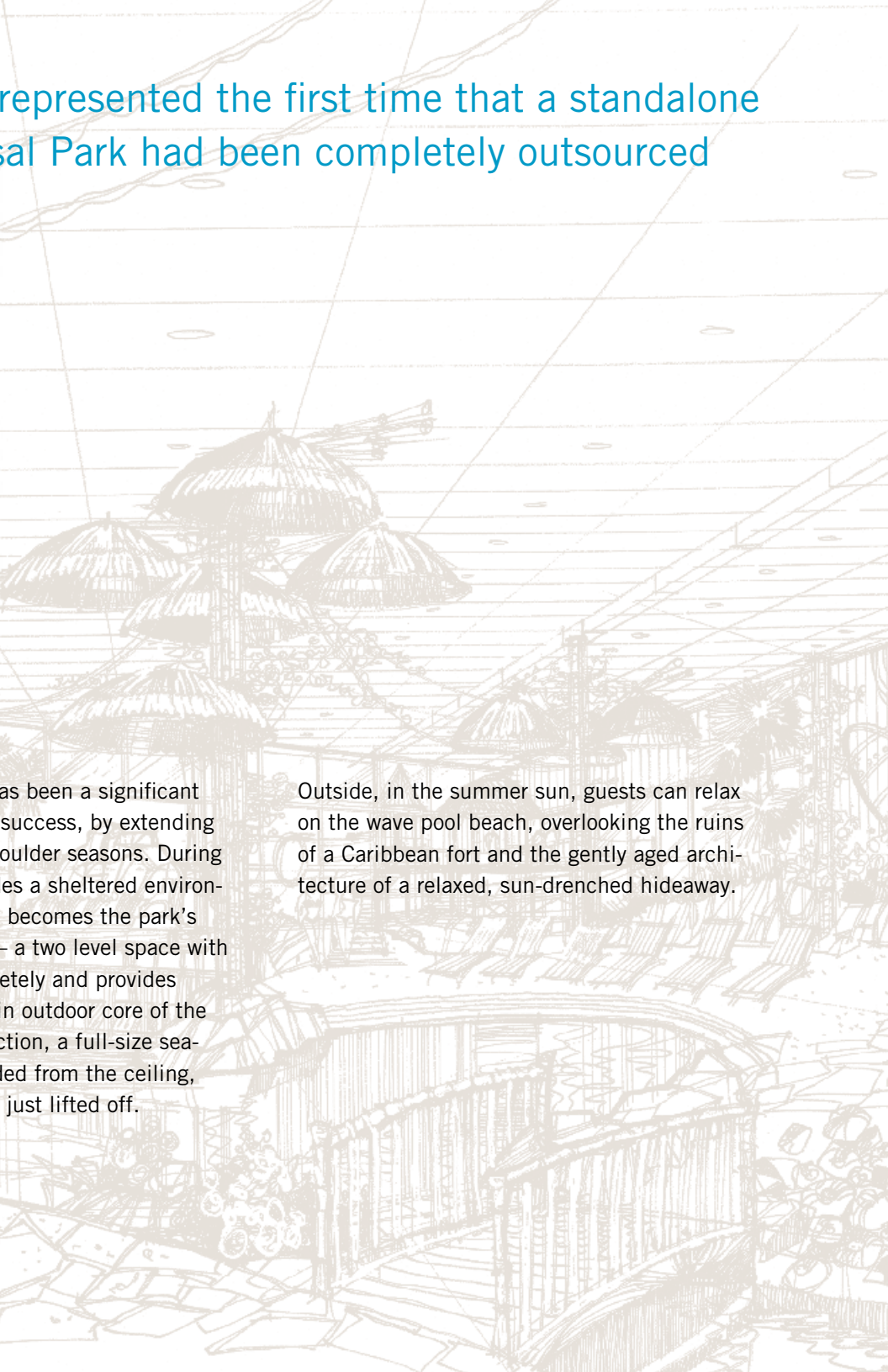




Costa Caribe represented the first time that a standalone gated Universal Park had been completely outsourced for design.

#### **THE ELEMENTS**

##### **Made for some shade**



The indoor water park has been a significant factor in Costa Caribe's success, by extending its operation into the shoulder seasons. During cooler weather, it provides a sheltered environment. In the summer, it becomes the park's largest shade structure – a two level space with a wall that opens completely and provides connection with the main outdoor core of the park. As an added attraction, a full-size sea-plane replica is suspended from the ceiling, looking as though it has just lifted off.

Outside, in the summer sun, guests can relax on the wave pool beach, overlooking the ruins of a Caribbean fort and the gently aged architecture of a relaxed, sun-drenched hideaway.



The focal point is a full-scale replica of a seaplane that has just lifted off.





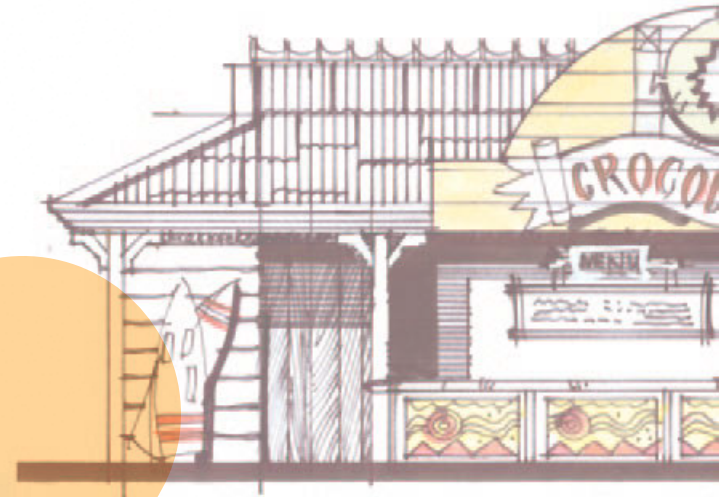
A sloping site might seem like a disadvantage in laying out a water park. But here it created a tremendous opportunity to provide spectacular views while minimizing the costs of excavating for pools and mechanical systems.





“The Caribe aquatic park is a magnificent themed water park in the purest Caribbean style: with palm trees, wave pools, heated pools, slides and the best water rides imaginable.”

– [1st4attractiontickets.co.uk](http://1st4attractiontickets.co.uk)

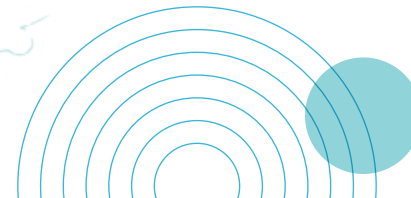


### THE RESULTS

#### On target, on time and on budget

Despite an extremely tight schedule, the project met and exceeded the owner's expectations, opening on time and well within the targeted budget. The owner's on-site team worked diligently to push the project forward and happily took FORREC's lead in applying novel solutions to complex challenges. As an indication of the park's immediate success, it was quickly found necessary to increase the capacity in order to satisfy demand.

A key element in the park's program and design was the understanding of guest expectations, a process that included comparisons with the immediate competition and a feeling for the quality demanded by the market. Balancing a prudent level of investment against the benchmark quality of the adjacent PortAventura theme park, Costa Caribe delivered a first rate water park for the Spanish market.










An aerial view of the Happy Magic Watercube water park. The scene is dominated by a large, multi-level structure with various slides and a large pool area. The architecture is modern and colorful, with a prominent blue and green color scheme. The ceiling is a complex, geometric structure with many large, clear, spherical pendant lights. The pool area is filled with people, and the overall atmosphere is vibrant and playful.

# HAPPY MAGIC WATERCUBE

Re-invigorating  
an Architectural Icon



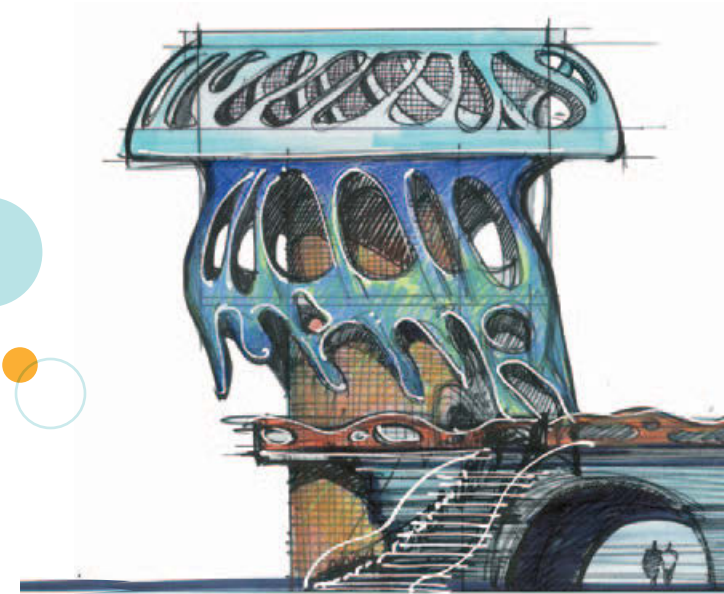


A Family-friendly  
Indoor Water Park  
As Unique As the  
Structure Itself

<b>CLIENT</b>	Tianyou Tourism Group
<b>LOCATION</b>	Beijing National Aquatics Center (The Watercube) Beijing, China
<b>OPENED</b>	August, 2010
<b>DURATION</b>	17 months from start to opening day
<b>SIZE</b>	140,000 sq. ft./1.3 ha.
<b>SCOPE</b>	Concept design through to schematic design: Master planning Interior design Architecture Ride and attraction theming
<b>COST</b>	\$30.0 million (\$US)



The Beijing Water Cube is a modern architectural wonder, recognized around the world as an icon of the 2008 Olympics. Happy Magic Watercube creates a water fantasy land within the simple beauty of this elegant form.



### THE OPPORTUNITY

To create a new legend inside an existing one

Our client, whose core business was spas and resorts, wanted to expand into the growing Asian water park market. By winning the contract to develop their very first park in the world-renowned Water Cube, they had the opportunity to achieve instant recognition. FORREC's creative approach was to develop a theme that took its cue from the stunning interior volume of the building – its form, texture and overall spirit – expanding on its underlying ideas to create a truly unique environment. The Happy Magic Watercube is a convincing demonstration of the amazing power of well-conceived water park theming.

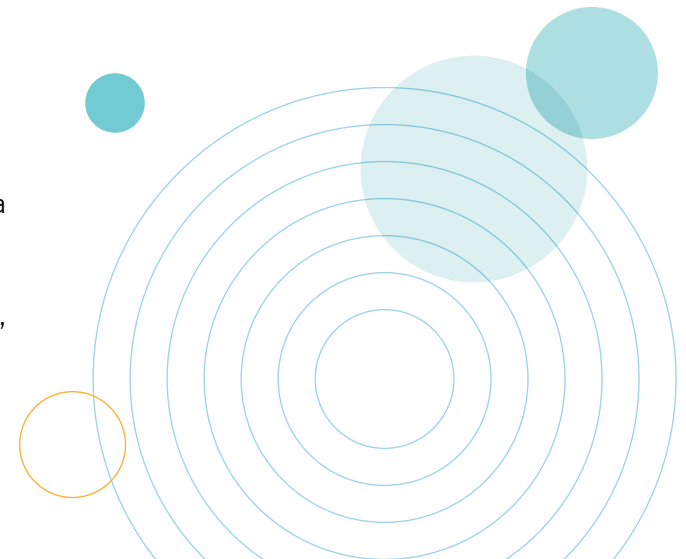
### THE BIG IDEA

To create THE indoor water park in China

With the exception of destination parks, water parks, and especially indoor water parks, are rarely themed. But the Water Cube, with its simple shape, vast open volume and “watery” exterior skin, presented a perfect opportunity to introduce decorative, story-telling elements that would animate the space and create an exciting mood.

To complement the architecture and to create a complete watery environment, FORREC proposed an “underwater” world using abstracted aquatic elements such as air bubbles, seaweed, coral and jelly fish – large colourful shapes and

forms that “float” within the space, creating a dramatic atmosphere that is fun and exciting, but sophisticated enough to complement the architecture.

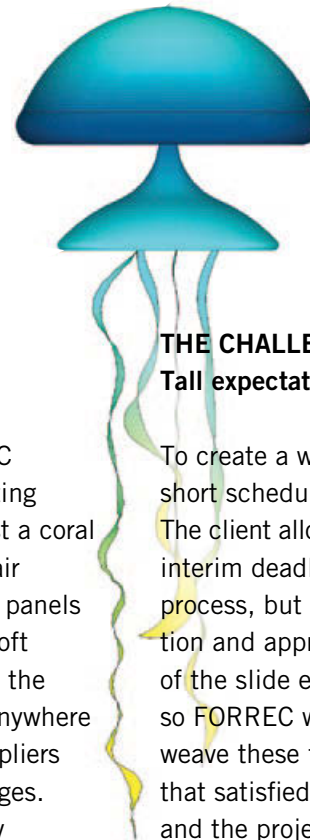
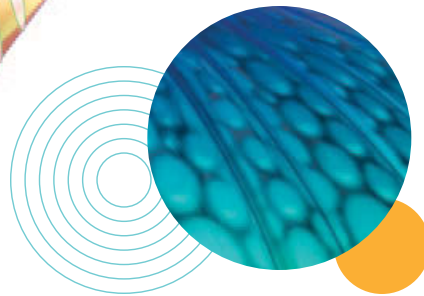
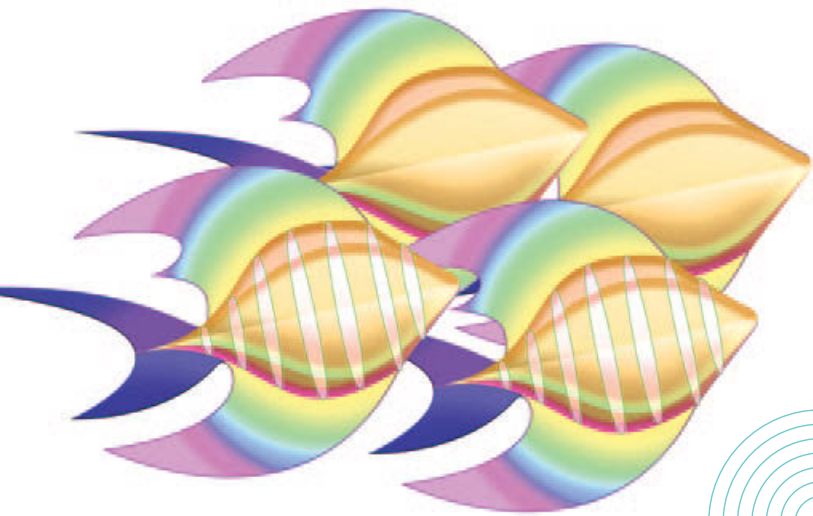




Guests can climb up into the space and be completely surrounded by water bubbles.







## OVERALL APPROACH

### Letting the architecture guide the theme

FORREC's creative design team has combined water park experience with imaginative thinking to produce an exciting environment that is also practical. By taking advantage of the height of the space, as well as its floor area, the volume has been used to the maximum, with attractions and thematic elements woven into a continuous three-dimensional composition.

To take advantage of the excitement generated by the architecture, and to ensure that the Happy Magic Watercube would re-open two years after the opening of the Olympic games, the schedule was kept extremely tight. The team designed the park and guided its construction all within 17 months.

## THE DETAILS

### Creating an underwater world

To create the underwater theme, FORREC combined simple elements with the existing building forms. Column coverings suggest a coral reef, clear plastic balls become floating air bubbles and translucent stretched fabric panels are molded into jellyfish, seaweed, and soft coral. The Watercube introduces some of the newest water park attractions available anywhere – from many of the best international suppliers – creating experiences for visitors of all ages. Some attractions appear here for the very first time.

## THE CHALLENGE

### Tall expectations, short deadline

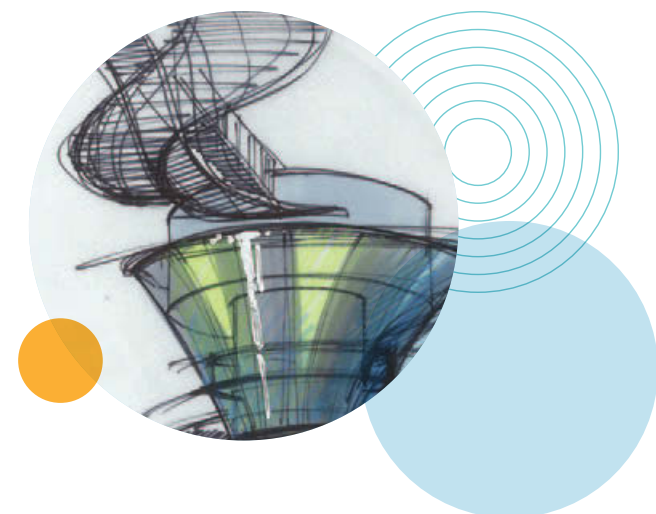
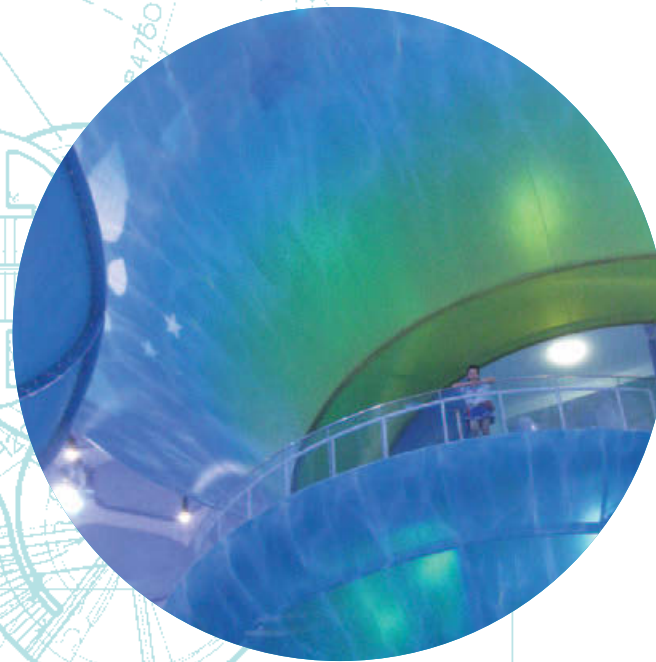
To create a world-class attraction on such a short schedule required seamless collaboration. The client allowed FORREC free rein in setting interim deadlines and coordinating the design process, but was always available for consultation and approvals. Decisions regarding some of the slide elements had already been made, so FORREC worked closely with the suppliers to weave these features into the design in a way that satisfied both the client's financial needs and the project's high aesthetic goals. Throughout the course of the project, the work of the various design disciplines, in different time zones, was smoothly coordinated, so decisions were made quickly and effectively.





THE WATERCUBE IS QUICKLY BECOMING ONE OF THE WORLD'S LEADING INDOOR WATER PARK ATTRACTIONS, PROVIDING A UNIQUE AND MEMORABLE FAMILY EXPERIENCE FOR UP TO 2,700 GUESTS AT A TIME.





## THE ELEMENTS

**Thinking outside the box; designing inside the cube**

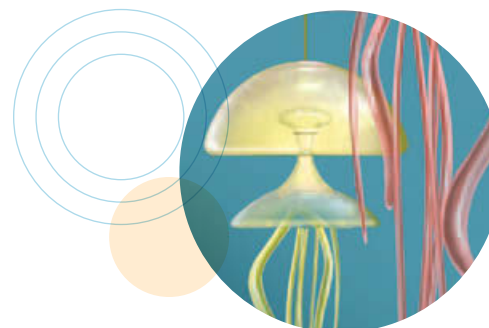
Most indoor water parks maximize space by running portions of their water slides outside the main hall. But the Water Cube's thick and complex structural shell made this impossible – all of the slides would have to be contained within the building envelope, without feeling cramped or crowded. The solution was to carefully consider all three dimensions of the space – not just the plan – and to combine all the attractions and thematic elements into one dynamic and colossal composition.

The innovative use of mezzanine levels helped to improve the capacity of the water park by increasing floor area and simplifying access to some of the slides. It also introduced new and exciting ways to experience the fantastic underwater world.

## RESULTS

**Creating a worldwide buzz**

Even before the opening of Happy Magic Watercube, there was a buzz in the water park industry. Something new and exciting was happening. Since then, the buzz has increased and the park has become our client's flagship project, firmly establishing and defining the brand. The Happy Magic Watercube concept – a high-quality themed water park – has expanded to water parks in Beijing and Nanjing. With the help of FORREC, there are plans to further expand the brand throughout China.





# Selected Water Park Projects



# FORREC's Water Park Experience

## North America

Adventures Island,  
New York City, USA  
American Dream,  
East Rutherford, NJ  
Fiesta Texas Water Park,  
San Antonio, USA  
Medieval Times Water Park,  
Schaumburg, USA  
Nickelodeon Suites Resort,  
Orlando, USA  
Ontario Place, Toronto, Canada  
Poseidon's Adventure Water Park,  
Aurora, Canada  
Rock & Roll Water Park,  
Niagara Falls, Canada  
Sheraton Water Park,  
Niagara Falls, Canada  
Splash Works, Canada's  
Wonderland, Toronto, Canada  
Whistler Wild, Whistler, Canada  
White Water, Atlanta, USA  
Wild Water Kingdom, Toronto,  
Canada  
Wild Waterworks, Hamilton,  
Canada  
World Water Park, West Edmonton  
Mall, Canada

North America

South  
America

Europe

## Europe

Center Parcs Roybon,  
Roybon, France  
Center Parcs Les Trois Fôrets  
Village Resort, Moselle, France  
Center Parcs Lac d'Ailette,  
l'Ailette, France  
Center Parcs, De Eemhof, Holland  
Mszczonow Aqua Park,  
Warsaw, Poland  
Nick Blackpool 2010, Blackpool,  
England  
Universal Studio's Costa Caribe  
PortAventura, Salou, Spain

Middle East

## Asia

Aquamania,  
Bangkok, Thailand  
Bali Action Water Park,  
Bali, Indonesia  
Beijing Longmenzhen Water Park  
& Spa Hotel, Beijing, China  
Berjaya Star City Water Park,  
Kuala Lumpur, Malaysia  
Calypso Beach Water Park,  
New Delhi, India  
Centara Grand Mirage Beach  
Resort, Pattaya, Thailand  
Chandigarh Water Park,  
Chandigarh, India  
Chimelong Water Park Masterplan,  
Guangzhou, China  
Continental Hope Resort,  
Chengdu, China  
Dr. Leo's Big Splash,  
Bangkok, Thailand  
Everland; Caribbean Bay  
Expansion, Seoul, Korea  
Guiyang Water Park,  
Guiyang, China  
Gyeongju World; California Beach  
Expansion, Gyeongju, Korea  
Happy Magic Watercube,  
Beijing, China  
Hyundai Sungwoo Leisure Town  
Water Park, Seoul, Korea  
Kimhae Water Park, Seoul, Korea  
Lotte Waterworld, Seoul, Korea  
Nanjing Longmenzhen Water Park  
& Spa Hotel, Nanjing, China  
OCT Happy Valley, Wuhan, China  
OCT Water Park, Shenzhen, China  
One Mount, Busan, Korea  
Ocean Splash Water Park,  
Johor, Malaysia  
Promised Land Water Park,  
Hualien, Taiwan  
Senbo Green Park Resort, China  
Water World, Tieling, China  
Wanda Xishuangbanna  
Water Park, China

Asia

## Middle East

Qatar Pleasure Project,  
Doha, Qatar  
West Bay Lagoon, Doha, Qatar

Africa

Australia



# A tropical rainforest in Eastern France

## Center Parcs Domaine des Trois Fôrets



**CLIENT**  
Center Parcs

**PROJECT**  
Center Parcs  
Domaine des Trois  
Fôrets

**LOCATION**  
Moselle, France

**SCOPE**  
Master plan and  
concept design

**SIZE**  
5,000 m<sup>2</sup>

**OPENED**  
2010



Inspired by the lushness of a subtropical rainforest, FORREC developed a comprehensive themed concept for this mostly-indoor water park with a relaxed family atmosphere. The project includes lagoons, slides and an indoor/outdoor lazy river ride. Adding to the jungle effect are natural materials, plantings, sounds and aromas. A graceful translucent roof floods the space with light, year-round and for natural summertime ventilation, the facades open to the outdoors.





# Growing a park with Big Idea thinking Everland's Caribbean Bay

**CLIENT**

Samsung Everland

**PROJECT**

Everland -  
Caribbean Bay  
Expansion

**LOCATION**

Seoul, Korea

**SCOPE**

Master plan,  
concept to detail  
design

**SIZE**

2 ha

**OPENED**

2008





One of the most successful water parks in the world, Samsung Everland asked FORREC to help them stay ahead of the competition by applying some Big Idea thinking. Instead of just adding exciting new rides from a catalogue, Everland wanted to expand their park with entirely new experiences. FORREC worked with Everland to develop a comprehensive themed approach and a master plan that would accommodate the park's 30-percent growth in attendance. Everland continues to maintain its position, ahead of the competition, in Korea and the world.





California Beach is a complete redevelopment and re-imagining of a water park that formed part of Gyeongju World: a popular existing amusement park that caters to a wide regional tourist market. The redesign includes a reconfiguration of the main entry plaza and the provision of a separate entry. The new water park includes state-of-the-art attractions and an intensive thematic treatment, unlike any other in the Korean market.



# Added capacity and excitement

## Gyeongju World's California Beach

**CLIENT**

Gyeongju World,  
Asia Cement Co.  
Ltd.

**PROJECT**

Gyeongju World -  
California Beach

**LOCATION**

Gyeongju-si,  
Korea

**SCOPE**

Master plan,  
concept design,  
attraction program,  
schematic design

**SIZE**

8.4 ha

**OPENED**

2008





The Water Park draws inspiration from the lush vegetation, ancient ruins, rushing rivers and crystal pools of the dense equatorial jungle. In the indoor park, pools and streams weave among plants and trees. Here and there, springs burst through fissures in the stone. Amidst overgrown stone temples, waterslides plunge through the jungle foliage into deep pools. On the exterior, the old structures are decorated with ancient motifs and hieroglyphs with water cascading down the facades.



# A lush jungle experience

## Chimelong Indoor Water Park

**CLIENT**

Guangzhou  
Chimelong Group  
Co. Ltd.

**PROJECT**

Chimelong Resort  
Water Park  
Expansion

**LOCATION**

Guangzhou, China

**SCOPE**

Master plan and  
concept design

**SIZE**

33,000 m<sup>2</sup>



# A themed water park in a dramatic setting

## Dawang Deep Pit Water World

The park is part of a recreational development that includes an “Ice and Snow World” that hovers above an abandoned rock quarry, within a strikingly modern structure. The indoor water park is also contained within this structure. The outdoor park, themed as an exotic South Pacific fishing port, takes advantage of the quarry’s depth by creating dramatic vertical elements – slides and funiculars – that connect the rim to the pit.



### CLIENT

Changsha Pilot Land  
Development and  
Construction Co.  
Ltd.

### PROJECT

Dawang Deep Pit  
Water World

### LOCATION

Changsha, China

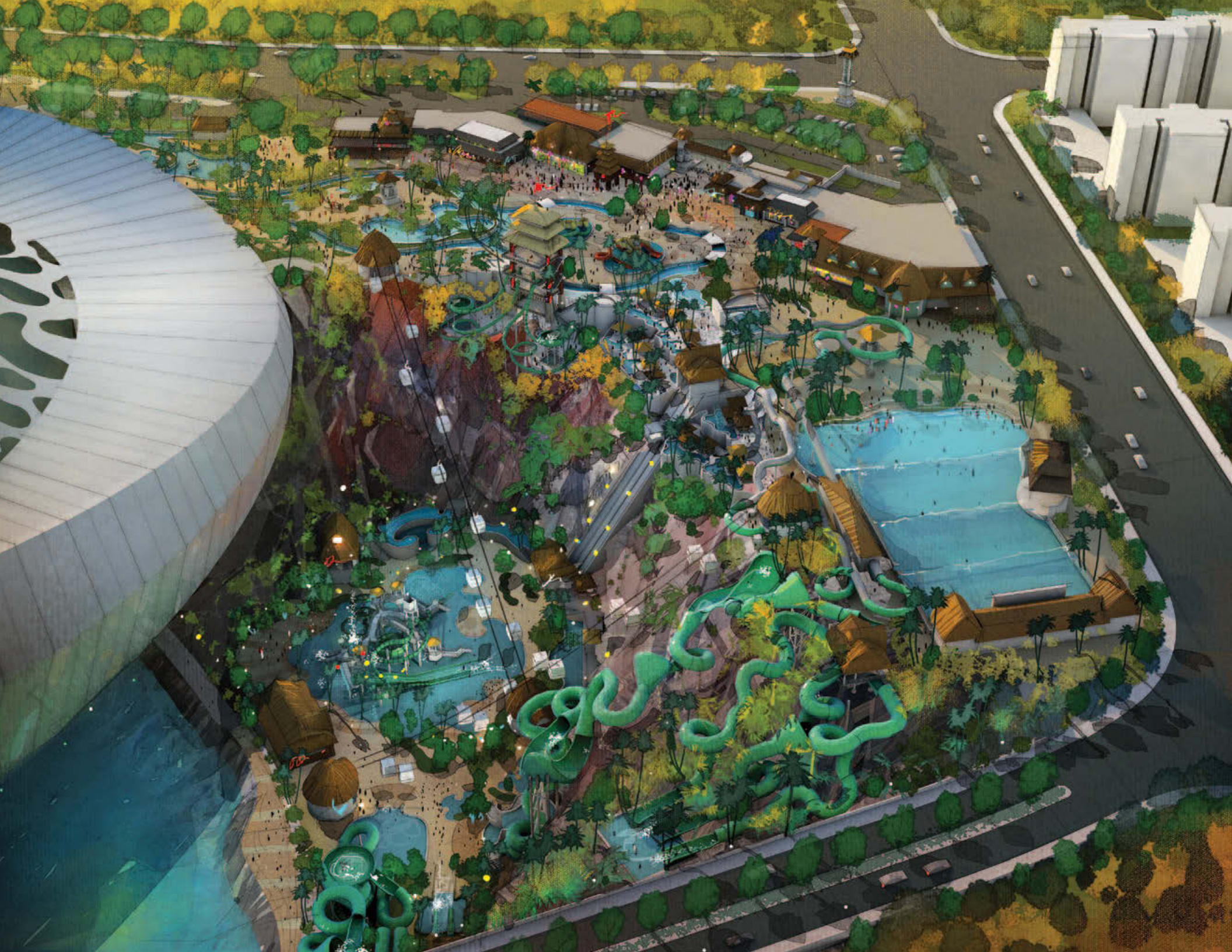
### SIZE

Indoor Water Park:  
6,500 m<sup>2</sup>;  
Outdoor Water Park:  
6.5 ha

### SCOPE

Concept and  
schematic design







# A super-sized jungle waterworld

## Wanda Xishuangbanna Water Park

Throughout the park, super-sized vegetation creates a lush, whimsical tropical environment. Giant flowers become portals for water slides made of enormous bamboo tubes. Visitors can slide from blossom to blossom, or splash down a shaded wild river, on a giant floating leaf. Gigantic jungle vines, oversized mushrooms, intertwining roots and branches form water play structures. And for adult relaxation, there is a quiet tropical spa, with calming pools, thermal baths, and therapy rooms for a truly secluded jungle experience.



### CLIENT

Wanda Group

### PROJECT

Wanda  
Xishuangbanna  
Water Park

### LOCATION

Xishuangbanna,  
China

### SCOPE

Master plan,  
concept to  
detail design



# A respected TV brand gets wet

## Nickelodeon Family Suites Resort Water Park

In 2004, Holiday Inn partnered with Nickelodeon to create a new kind of resort: a highly-themed, branded water park resort destination. The project provided a new way to conceive of a water park and FORREC was asked to visualize this hybrid product. Bringing two-dimensional TV cartoon characters to life in a 3-D world was a welcome challenge that has resulted in a very popular family-oriented one-stop vacation experience.



### CLIENT

Holiday Inn Family  
Suites Resort  
Orlando

### PROJECT

Nickelodeon Family  
Suites Resort Water  
Park

### LOCATION

Lake Buena Vista,  
Florida, USA

### SCOPE

Master plan,  
concept to detail  
design

### OPENED

2005



# A magical undersea adventure

## Guiyang Indoor Water Park

The flowing architectural form of Guiyang Water Park is indicative of the futuristic, high-quality, multi-sensory experience that lies within: a memorable land-and-water environment featuring a host of exciting water park features. Elegant abstract forms, sensory experiences and surprising lighting effects create a unique undersea atmosphere that changes mood throughout the day. In the company of live fish, park visitors can lose themselves in a vast magical tropical lagoon.

**CLIENT**

Guiyang Real  
Estate Development  
Co, Ltd.

**PROJECT**

Guiyang Indoor  
Water Park

**LOCATION**

Guiyang, China

**SCOPE**

Master plan and  
concept design

**SIZE**

14,000 m<sup>2</sup>







# An ancient Mayan park in modern China

## OCT Happy Valley

Some historians speculate that the great Chinese admiral, Zheng He arrived in North America long before Christopher Columbus. A possible landfall for the Chinese fleet would have been Mexico's Yucatan Peninsula, where Mayan culture flourished. Extending this idea to the modern day, OCT Happy Valley represents the re-creation of a Mayan water park based on the imagined discovery of long-lost charts and artifacts from one of Zheng He's voyages. Features include Mayan temples, tropical rivers and a sandy beach.



### CLIENT

Wuhan OCT Co. Ltd.

### PROJECT

OCT Happy Valley

### LOCATION

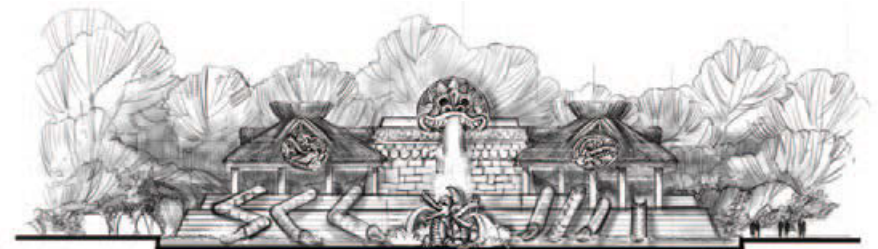
Wuhan, Hubei,  
China

### SCOPE

Master plan,  
concept and  
schematic design

### SIZE

92,000 m<sup>2</sup>





# A destination resort with two themed water parks

## Sanya Water Park

When FORREC was approached by Chimelong Waterpark – the most successful water park in Asia, and one of the largest in the world – it wasn't to expand their water park, but to improve the efficiency of the existing park. The scope of work included the addition of major new attractions, the creation of new park entrances, improvements to circulation patterns and the addition of new change facilities, containing 20,000 lockers. By putting guest comfort first, the park's success continues, uninterrupted.

**CLIENT**

Kasen International Holdings Ltd.

**PROJECT**

Sanya Water Park

**LOCATION**

Sanya, Hainan, China

**SCOPE**

Master plan and concept design

**SIZE**

109 ha;  
Resort: 6,000 keys/  
rooms;  
3 Resort Water  
Parks at 19 ha each



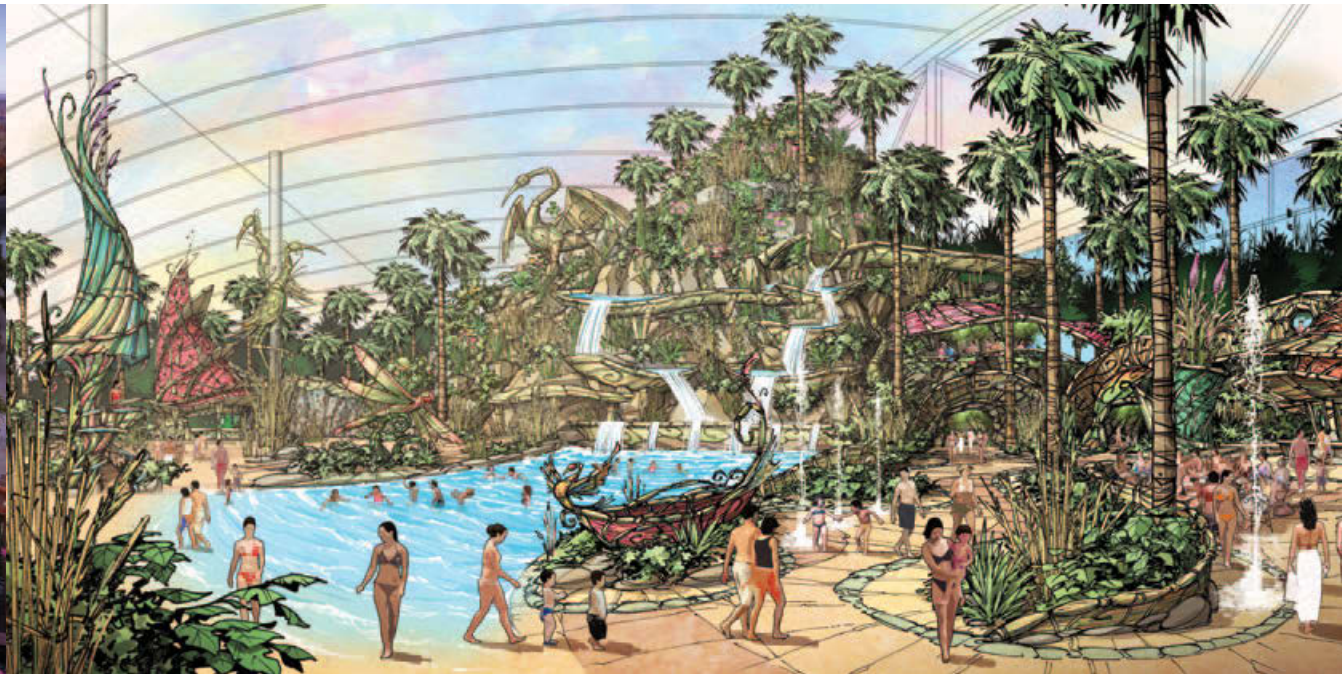




# An old fable inspires a themed water park

## New Century

The giant translucent leaf that covers this indoor water park represents the importance of nature in this ecologically sensitive region, while bringing daylight into interior spaces. At night it glows with a soft light. The fully themed environment is inspired by a story of ancient tribes who lived in harmony with the land, reflected in two zones: the entertainment- and retail-oriented Discovery & Market Dome, and the Water Dome, a large indoor/outdoor water park.



### CLIENT

New Century Real Estate Group Co. Ltd.

### PROJECT

New Century

### LOCATION

China

### SCOPE

Master plan, concept design to detail design

### SIZE

60,000 m<sup>2</sup>





Designing success means creating places and experiences that put people first – and make business sense.





We have succeeded by combining big-picture creative with strict attention to detail. We design and deliver breakthrough projects, where people and their experiences come first. Our vision is a world that works, plays, shops and lives in places that are smarter, more functional and totally people-centred.

FORREC designs success.



**Please contact us to find out more  
about how we can help you realize  
your vision of success.**

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Designing Success