

a harmony of new and old

Beijing's cityscape is being regenerated with an increasing presence of innovative and modern architecture. These spectacular landmarks breathe new life into the capital city's dynamic growth and add to the appeal of its rich culture



The Bird's Nest

■ Beijing, one of the Four Great Ancient Capitals of China, has a multitude of roles to play nowadays. From a major transportation hub to the political, educational, and cultural centre of the country, the capital city is a place where east meets west in the 21st century, and this is especially true in terms of its architecture where the traditional blends vigorously with the modern.

Against traditional Chinese architecture like Tiananmen Square, Forbidden City, Summer Palace, Temple of Heaven and the Gate of Heavenly Peace, new and stunning landmarks including some of the high-profile Olympic-related developments are rising prominently in key locations – thus adding a contemporary and incredible touch to the cityscape.

THE BIRD'S NEST

The Beijing National Stadium (National Stadium), completed early this year is located right next to the Beijing National Aquatics Centre. It will host the main

track and field competitions for the 2008 Beijing Olympics, as well as the opening and closing ceremonies.

The stadium, commonly known as “The Bird's Nest” because of its unique shape, was officially opened for the 2008 IAAF Race Walking Challenge in April this year.

The project's success was a result of whole-hearted commitment by the Chinese government and world-renowned architects. In 2002, government officials engaged architects worldwide in a design competition. Pritzker Prize-winning architects Herzog & de Meuron collaborated with ArupSport and China Architecture Design & Research Group to produce the winning design. The ground was broken in December 2003, and construction started in March 2004.

Li Xinggang, chief architect of the National Stadium for the Beijing Olympic Games, said reportedly that it was lucky the dialogue between the Swiss firm Herzog & de Meuron and the Chinese side was not “west versus east” or “traditional versus modern”. “Instead, we had the same goal: to work together to create something that had modern flavour as well as conformity with traditional Chinese cultural aesthetic norms,” he said.

In their stadium design presentation to the Chinese jury, the Swiss architects used the analogy of a bird's nest. Everyone loved the idea of a bird's nest. Perhaps, it has something to do with the culinary association in China – a bird's nest is very

expensive and believed to be extremely healthy, something for special occasions.

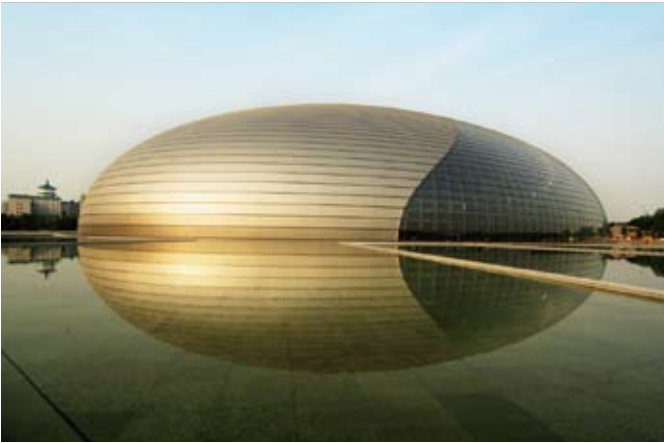
A visit to the construction site of the National Stadium might be as close as one could get in the 21st century to seeing what it had been like to put up the Great Wall of China. During construction, the crisscrossed interwoven steel roof construction of the bird's nest roof was supported by 78 temporary steel columns. For additional stability, the huge ‘twigs’ were welded onto the supports. After completion of the bird's nest construction, the ‘twigs’ had to be cut off the support piers, before dismantling of the piers could start.

The design of the bird's nest is based on three construction circles; an outer circle, a central circle and an inner circle. Each circle has a specific number of supporting piers, varying from 24 for the outer and central circles and 30 for the inner circle.

The stadium has a gross floor area of 258,000 square metres, and 80,000 permanent seats, and 11,000 temporary seats will be added after the 2008 Olympics.

THE PANTS

After Beijing was awarded the Olympic Games, the city authorities, with national encouragement, set out to display the material progress of society. Along with the National Stadium, the headquarters for China Central Television (CCTV), the



The Egg

national television company, is another modern monument built in the city.

The CCTV Headquarters is a skyscraper planned to be completed in time for the 2008 Summer Olympics.

The construction of the building is considered to be a structural challenge, especially because it is in a seismic zone. Because of its radical shape, the project has acquired nicknames such as "Twisted Donut" and "The Pants".

The CCTV Headquarters, when completed, is slated to be among the first of 300 new towers in Beijing's new central business district. It will incorporate the design of a non-traditional, continuous loop in which administration, news, broadcasting and programme production will all take place.

Arup, a UK-based professional services firm, is providing engineering design services for structures, buildings services and security for the new development. The biggest challenge for the Arup engineers is the unique structural form of the CCTV building, which is formed by two leaning towers, bent 90 degrees at the top and bottom to meet and to form a continuous "tube". The construction cost of the project is estimated at US\$600 million.

THE EGG

Another grand architecture that has a stylish look is the National Centre for the Performing Arts, which is colloquially described as "The Egg". The opera house in Beijing, an ellipsoid dome of titanium and glass surrounded by an artificial lake, is designed by French architect Paul Andreu.

The Egg is located immediately to the west of Tiananmen Square and the Great

Hall of the People. Paul Andreu said that although there is indeed value in ancient traditional Chinese architecture, Beijing must include modern architecture as the capital of the country and an international city. According to news reports in the Macau Daily in December last year, the design triggered great controversy right after its blueprint was made known to the public. It was criticised for being out of place as it sits near the Forbidden City. However, some members of the public favour its futuristic style.

At the inaugural concert of the egg-shaped opera house on 24 December last year, promising Chinese pianist Li Yundi gave his unique performance, along with other artists and musicians. About 6,000 Chinese and overseas artists had staged ballets, operas and various performances such as Swan Lake and Othello there as at April this year.

THE WATER CUBE

The National Aquatics Center is another landmark building of the Beijing Olympic Games. Situated next to the Beijing National Stadium in the Olympic Green, the centre will be the venue for swimming, diving, synchronised swimming and water-polo finals during the world sports event. It has earned itself the name "The Water Cube", thanks to its truly remarkable structure.

The Water Cube, chosen from 10 proposals in an international competition, was designed by two Australian companies, PTW Architects and the Arup Australasia engineering group, together with the China State Construction Engineering Corporation (CSCEC) and the CSCEC Shenzhen Design Institute. PTW

and Arup had previously worked together on the Aquatic Centre for the 2000 Olympics in Sydney.

In an interview with The Guardian on the innovative design, Kurt Wagner, architect at PTW, was quoted as saying, "It is an ever-increasing issue for all architects to find inspiration and the basis for design solutions, and often our imagination is just not enough. For this project, we were researching the meaning and relevance of water, and we were intrigued by images of foam, soap bubbles..." In fact, the Water Cube has been designed to be highly energy efficient as swimming pools require a lot of heating. Some 90 per cent of the solar energy falling on the building will be trapped within the structure and used to heat the pools and other areas. In the 2004 Official Awards of the 9th International Architecture Exhibition – METAMORPH, Venice Biennale, the special award for the most accomplished work in the section Atmosphere was awarded to the Australian architecture firm PTW Architects, CSCEC + Design and Arup for the National Swimming Centre Beijing Olympic Green project.

In addition to its rich culture – from Chinese opera to teahouses, traditional arts and crafts, Mandarin cuisine and Peking Roast Duck, Beijing definitely has a modern story to tell about. There are now a growing number of brand new landmarks to complement the historical attractions in the city. Next time when you visit Beijing, or if you are going to join the Olympic excitement, do embrace the spectacular architecture that breathes new life into the capital city's skyline. ■

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