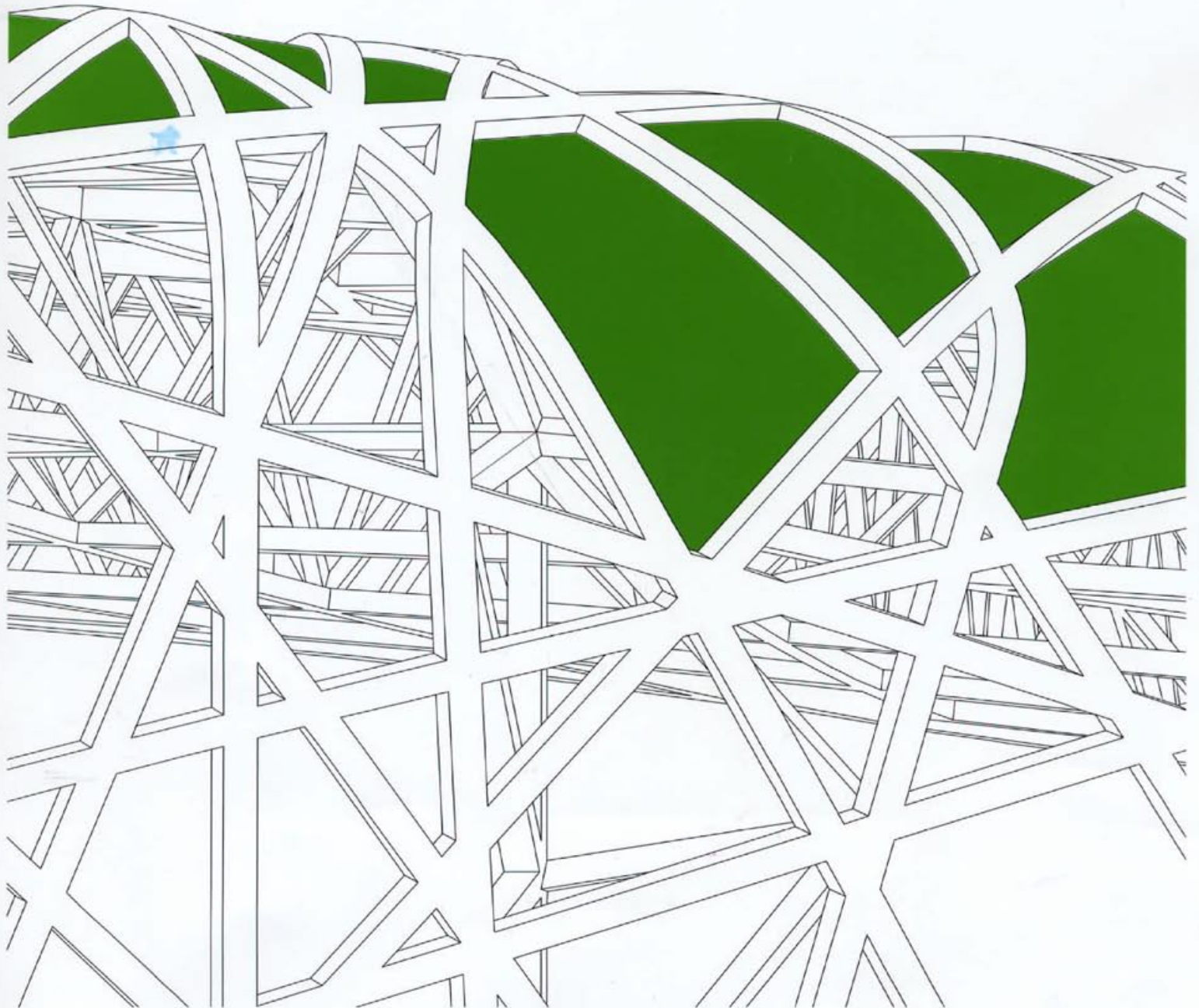


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## One World – One Dream? New Buildings for the New China

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For over 2000 years China's biggest and most famous built structure has been the Great Wall. At weekends and on holidays the Badaling section of the wall attracts as many as 60,000 Chinese and foreign tourists. Here, in the middle of the countryside, spelt out in 15-metre high letters fixed to a steel frame, are the words "One World One Dream", the official motto of the Olympic Games 2008 (ill. B). The comparison with the "Hollywood" sign at Beverley Hills is unmistakable. Yet, unlike the Californian dream factory, the stage set for the Olympic Games in China is not made of papier maché and plywood, but steel, concrete and glass. China had set itself some ambitious goals so as to be sure of winning the bid for 2008, following its narrow miss in 2000. The country wanted to show the world that it was now a full member of the international community, culturally, technologically, ecologically and in terms of human rights. It was time to replace the horrific images of 4 June 1989 when armoured vehicles ran down students on Tiananmen Square with pictures of happy sportsmen and women and splendid stadiums.

### Green Games?

China's campaign slogan in its bid to host



B

the 2008 Olympics was "The Green Games". The buildings were to be state of the art and constructed in line with sustainable principles. According to official statistics, the environmental protection programme alone has cost 11 billion euros. To the north of Beijing a reforestation programme was started, the underground railway network was extended and industrial operations moved out to the edge of the city, if only to make space for the much more profitable office towers. In the hutongs, the traditional districts with mostly single-storey courtyard houses (or at least those that survived the demolition programme), a proper sewage system was installed. Despite all these measures, however, few cities in the world have poorer air quality than Beijing. Never before has a host country undergone such radical change for the Olympics. In 1990 cars were a real rarity in Beijing – five years later drivers were sitting in traffic jams on the motorway from the airport to the city centre. A visible sign of this development are the ring roads which have been built like the rings of a tree, at ever increasing speed and in ever wider circles around the Forbidden City. In 1992 the third outer ring road was completed, in 2003, the fifth. At present the seventh ring road is currently forming the city limits of Beijing (ill. C). The ongoing building boom and the rapid pace of development have had a direct effect on the architecture, even down to the small details. Often specified materials are simply not available on the market, specialist building workers are in short supply and the planning and execution phases reduced to an absolute minimum, which often leads to less refinement in the details and poor workmanship. On government building sites, however, there seems to be an unlimited supply of workers. Any delays on the National Stadium were quickly compensated for by bringing in hundreds of soldiers to mix concrete at short notice. One aspect that must not be underestimated is the effect of the aggressive air on the facades. Rendered facades become dirty in a short space of time, adding to the

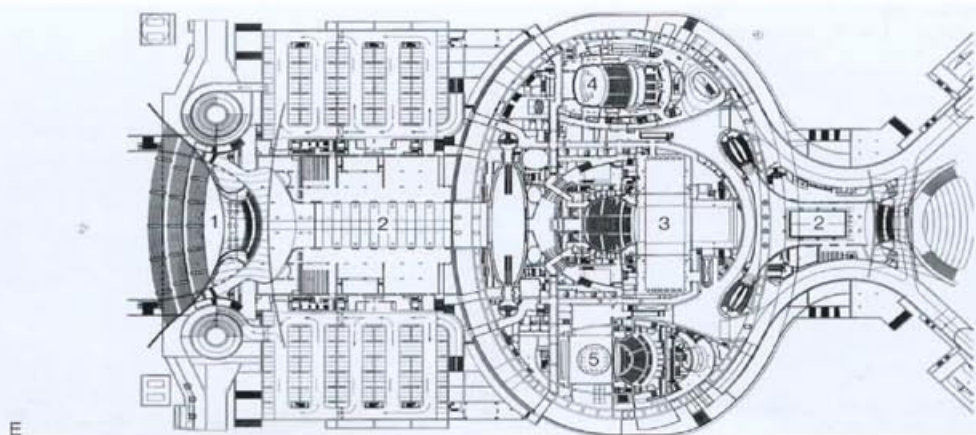


C

grey impression of the city. At night, however, the cityscape is ever brighter. The Greenpix Zero Energy Media Wall, designed by the New York firm of architects Simone Giostra & Partners and completed in June 2008, lights up in competition with the headlights of the cars. As the "first digital art space in Beijing" the 2,200 m<sup>2</sup> media facade is the first media wall in China to supply its energy needs from integrated photovoltaic cells.

### Showcase for a whole nation?

Olympic buildings have always been a chance to show off, they are a kind of corporate advertising for a whole country. Yet only seldom so far have these become successful symbols, symbols that endure as timeless unique incunabula of architecture. Werner March managed it in 1926 with a design for the Neoclassical Deutsches Sportforum, which as the stadium for the Berlin Olympics in 1936 was misappropriated by the Nazis and degraded into a National-Socialist party building. In 1964 Kenzo Tange's successful urban ensemble consisting of elegantly curved suspended concrete swimming pool and stadium proclaimed to the world that Japan had now found its way back to the league of industrialised nations following the Second World War. Then in 1972 Günter Behnisch, Frei Otto and Günther Grzimeck and team came up with the Olympiapark in Munich, for the "Happy Games", designed to celebrate the open, democratic face of Germany, a welcoming face that was also presented to the world at the 2006 World Football Championships. Still today the flowing, open way the undulating tent roof of the stadium blends into the rise and fall of its park setting is quite unique. For many foreign participants in the competition to build the facilities in Beijing the primary concern was to solve the insoluble issue of on the one hand creating a distinctive structure which would celebrate the Olympic idea and appropriately represent the host country, while on the other hand not allowing itself to be misused for propaganda purposes by nationalist interests.



*The tradition of the grand scale*

The task was even more complex, if the urban environment is considered. Here, attention focuses entirely on Beijing, because the riding facilities in Hong Kong, the sailing facilities in the coastal town of Tsing Tao (Quingdao) and the cities for the preliminary rounds of the football competition – Shanghai, Shenyang, Tianjing and Quinhuandao – have been excluded from any pre-Games reporting and international debate. Anyone planning to build a symbolic architectural structure in Beijing is confronted with one of the most amazing urban complexes ever built. In just 14 years, from the year 1406, the Forbidden City with its 800 palaces was built along a central axis. The first government building programme following the Imperial era came in the 1950s when Mao had ten monumental buildings constructed on the Stalinist model, each with over 100,000 m<sup>2</sup> of built space – each planned and built in less than a year. The most well known is the Great Hall of the People on Tiananmen Square with a congress hall for 10,000 delegates.

*Unpopular colossus*

The first Western-design building in Beijing was commissioned in 1999 direct from

French architect Paul Andreu. His National Center for the Performing Arts, opened in January 2008, comprises the National Opera, a concert hall and two theatres for a total of 6,500 people. These three facilities are gathered together as separate building volumes under a single giant dome (ills. D, E). The glass and titanium dome, however, looks unapproachable; it is surrounded by a water channel and only accessible via a tunnel on the north and south sides. The first signs of wear on the surfaces, occurring only four months after the centre was partially opened, raise questions as to just where the 300 million euro building costs went – for China an enormous sum. From the start this first major project by a foreign architect was not popular with the local population. In particular they did not consider it appropriate that a foreigner should be building in close proximity to the Great Hall of the People at the point where the north-south axis of the government buildings crosses the east-west axis of Tiananmen Square. And indeed, when surveying the Forbidden City, the gleaming dome does indeed disturb the silhouette. International competitions were held to find architects for the mega projects of the CCTV Tower

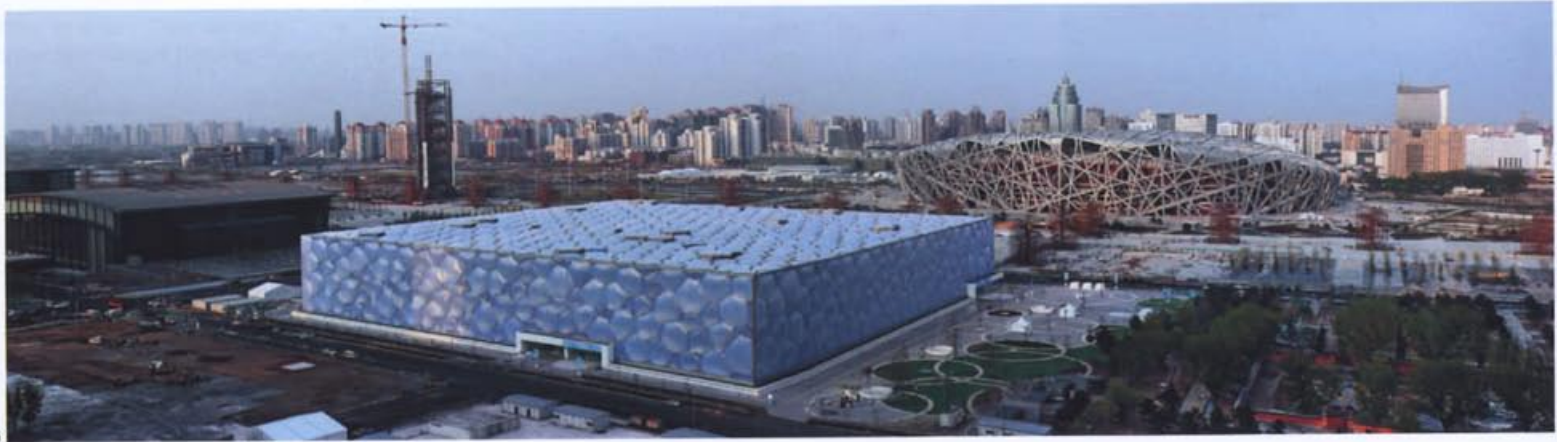
(2001), the new airport terminal T3 (2003) and the Olympic Buildings (2003).

*The reinvention of the skyscraper?*

On schedule for the start of the Games the state-run TV station China Central Television (CCTV) wanted to show the world that technological progress had also reached the media landscape in China – its groundbreaking new building could be interpreted as a bid to cast off its image as a state-censored organ. Human-rights activists point out that the land and apartments that had to make way for this project in the profitable central business district were bought at well below market levels. The finished tower is a landmark with a unique presence and will almost certainly enter the annals of global architectural icons. Rem Koolhaas and Ole Scheeren have tried, in the face of the global trend towards ever higher high-rises, to find a specifically Asian character for this type of building. Despite its unique form, it is a building that would without doubt have found a suitable home in the West, too. The incalculable moment in the design is the space in the middle of the ring, the hole in the house with its encoded symbolism. This multi-layered character makes it difficult to

- A "Digital Beijing", Arch.: Studio Pei Zhu
- B Great Wall at Badaling
- C Plan of Beijing scale 1:500 000
- D,E National Centre for the Performing Arts, Arch.: Paul Andreu, ADPI, BIAI background: Great Hall of the People
- E Entrance storey, Level -1 scale 1:3000
- 1 Main entrance
- 2 Access with glass roof and water channel
- 3 Opera, seating for 2416
- 4 Concert hall, seating for 2017
- 5 Theatre, 2x 1040 seats
- F Central Business District, 3rd ringroad and CCTV under construction, Arch.: OMA, ECADI





find a nickname that has a positive ring to it – and this aspect is very important in China. There is an undeniable poetry in the shape of this hard-edged CCTV Tower, and it emerged for the first time when the two free-standing towers, like two torsos leaning towards each other, first connected, 160 metres above the ground (ill. F). Perhaps CCTV really has decided to accommodate only commercial broadcasters in its new home, and to beam the politically censored content out from its hermetically sealed old HQ a few kilometres away. Certainly this would very much help the image of the building as an open media centre, but this step alone would not change much in the present practice of limiting press freedom.

#### *Gateway to the world*

In terms of size, the CCTV Tower in Beijing is beaten by only one other building – the new Terminal 3 by Norman Foster (see pp. 503). The dimensions of this airport terminal, however, can only be appreciated for a few seconds, from the air, during landing or taking off. At night it is illuminated in the national colours of red and yellow, like a gateway to the new China. The architectural quality of the terminal, however, lies not in a spectacular visual impact or in sophisticated details, but in the calming effect generated by its broad expansive design. All-powerful red and white columns allude to the “Hall of Supreme Harmony” in the Forbidden City, one of the world’s largest wood-built structures, in which the Imperial throne stands. Norman Foster has solved the problem of the “junk spaces”, as Rem Koolhaas calls these labyrinthine places selling perfume, cigarettes and whisky, in a simple but highly ingenious way: with space. The concept was robust enough to cope easily with certain details having to be carried out with less sophistication. In most airports around the world travellers arriving by air are channelled into the country via low corridors one floor below the privileged departures area; in Terminal 3 visitors are greeted by the grand gesture of the hall. The cathedrals of the 21st century look set to be its airports.

#### *Building with the axis*

For the Olympic buildings themselves a site in the north of the city between the third and fourth ring roads was cleared. This area lies precisely on the central axis of the Forbidden City. In the initial urban design competition, the international participants were free to decide whether they built on the axis or next to it. However, designs that placed buildings on the main road were eliminated straight away, as the axis is reserved for the Imperial throne and Mao’s mausoleum on Tiananmen Square. Herzog & de Meuron, with whom Ai Weiwei had worked closely on the design of the open spaces, leaves the axis free as a boulevard, which is accompanied by a winding water course (ill. H). The Olympic Green shows initial signs of being like Central Park in New York. The surrounding development is growing gradually into a wall of high-rises. The rounded “Bird’s Nest” stadium and the cuboid Aquatic Centre, “Water Cube”, form the centre of the complex, like the opposing antagonists of Yin and Yang. In Chinese tradition the circle stands for the heavens and the square for the Earth. In place of balance, however, what dominates here is quite clearly the steel corset of the stadium, not least because of its height of almost 70 metres, contrasting with the only 31-metre high sea of cushions marking out the swimming pool.

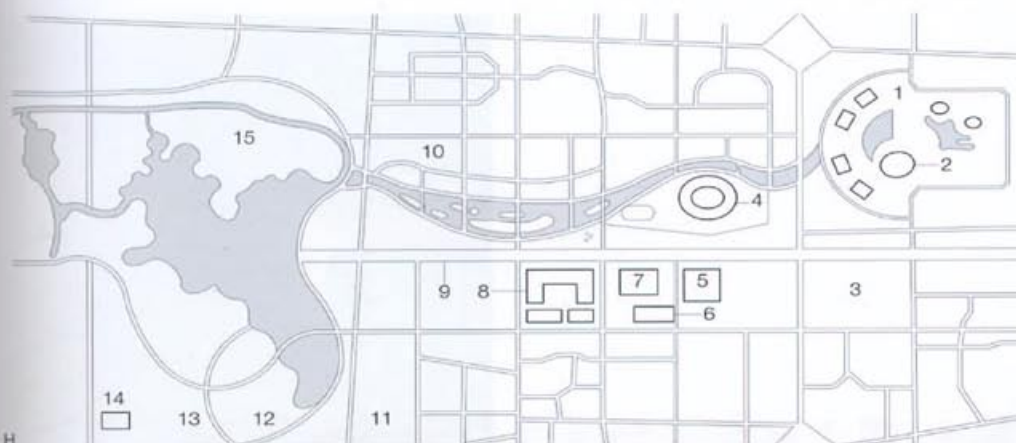
#### *Bird’s Nest and Water Cube*

All the more surprising is the impression the visitor gets on site, as in the context of broad empty spaces and the adjacent city motorway, the stadium does not look clumsy, oversized or monumental. As one gets nearer, the building volume turns into a woven structure which seems to suck the visitor into the inside through a network of struts rising up from their base at different angles. The greatest strength of the design is seen in the spatial quality of perimeter galleries. Via broad staircases that follow the diagonal struts upwards, the visitor arrives on these zigzag platforms that do not give a view of the ash track, but of the surrounding area, captured like in a kaleidoscope through the

open steel structure. In the interior it’s all about optimum lines of sight, something which Jacques Herzog in the Munich Arena called the “perception machine”. The fascinating space of the stadium is in the end reserved for the audience. Like a depression in a glacier the roof dips from east to west and, with its 1.20 m wide steel girders, offers arrow-straight rising or descending walkways between the transparent membrane bays, each affording a different perspective across the city. While the stadium as an open complex structure is arranged around a clear interior space, the interior of the swimming hall is an open, complex structure of different rooms, enclosed in a soap-bubble-like exterior which discloses nothing of its content. Even at night, when lighting further underlines the depth effect of the neighbouring Bird’s Nest, its steel struts silhouetted against the red core, the Water Cube remains opaque from the outside, like a glowing blue lantern. All the more overwhelming is the impression when you step through into the interior through one of the four entrances where the white base line seems to push the membrane structure upwards. The double facade cuts out all perception of the outside; the white structures within seem to be shrouded in fog in front of the white membrane. The only colour and fix point for the eye is the swimming-baths blue of the water pool. From the spectators’ gallery from which the athletes’ level is separated, you can see into the competition hall, the warm-up pool and a play pool with water slides. Particularly exciting are the view upwards into the 30 m high canyon above the gallery, the view of the overlaid membrane layers and the lines of sight across up to three halls. In the bar the soap-bubble structure breaks free of the constraints of the rectilinear walls and floors. Only here the crystalline structure of the frame truly becomes a three-dimensional water bubble.

#### *Olympic Green*

Leading off from the Water Cube, on the north side, is a line of further Olympic buildings, like a rope of pearls. However, these



- G National Aquatics Centre and National Stadium
- H Site plan Olympic Green scale 1:50000
- 1 China Sports Museum
- 2 Olympic Sports Centre Stadium
- 3 Ethnic Culture Park
- 4 National Stadium "Bird's Nest"
- 5 National Aquatics Centre "Water Cube"
- 6 Information Centre "Digital Beijing"
- 7 National Indoor Stadium
- 8 Fencing, National Convention Centre
- 9 Olympic Axis
- 10 Chinese Science and Technology Museum
- 11 Olympic Village
- 12 Olympic Hockey Stadium
- 13 Olympics Archery Field
- 14 Olympic Tennis Centre
- 15 Beijing Olympic Park
- I National Aquatics Centre, swimming pool, Arch.: PTW, CSCEC, Arup

structures are all too different in style and too conventional to be described as an exciting ensemble. They include the media headquarters "Digital Beijing" by Zhu Pei, which is the most ambitious among them (ill. A); this is a ten-storey block which is cut open into massive slices with atria between them. The long facades are designed like the lines in a bar code: towards the road as window slits in a close stone facade; towards the park as the exact opposite in the form of profile strips in a glass facade the height of the building. The first to follow the Water Cube in this line of buildings is the National Indoor Stadium designed by the Nuremberg architectural practice of Glöckner Architekten. The curved roof is meant to epitomise the lightness and rhythm of the athletes with the all-round glazing making the interior closed main hall and the adjacent hall clearly visible from outside. Despite the effort to make a symbolic connection to

sport in the architectural form this building, like most of the Olympic buildings that were completed in a more pared down form to that set out in the competition, remains conventional, and pales against the Water Cube and the Bird's Nest. To the north of the National Indoor Stadium is the National Convention Centre with its temporary facilities for fencing, the temporary Hockey Stadium, the archery field and finally, at the northernmost end of the Olympic Green, the extensive tennis complex. In the latter the platform for the covered centre court takes the abstracted shape of a twelve-petalled giant lotus flower, the neighbouring court being an equal-sized copy but without a roof. Just to the south of the Bird's Nest, across the city motorway, is the Olympic Sports Center Stadium which was built for the Asian Games in 1990 and has now been completely refurbished and extended for the events of the Olympic pentathlon. The re-

maining 31 venues for the Games in Beijing are distributed in the northern part of the city, along the ring roads.

*A symbol, but of what?*

In most countries around the world, the venues in which the Olympic Games were held were called Olympic Stadiums. And still are. China, however, has called its Olympic Stadium the National Stadium, and in doing so has consciously claimed the event for itself. Jacques Herzog had the vision that the galleries of the stadium would become a public place after the Olympics were over, a place where local people meet – as in the parks in the city – to dance, eat and climb up (as happens also with the Eiffel Tower). Let us hope that this stadium, like the monument in Paris, will still be a magnet for the general public in one hundred years' time. Perhaps by then it will bear the name, in Chinese, of Olympic Stadium.

