

Architecture at Expo 2010 Shanghai



Prunus Press



China Architecture & Building Press

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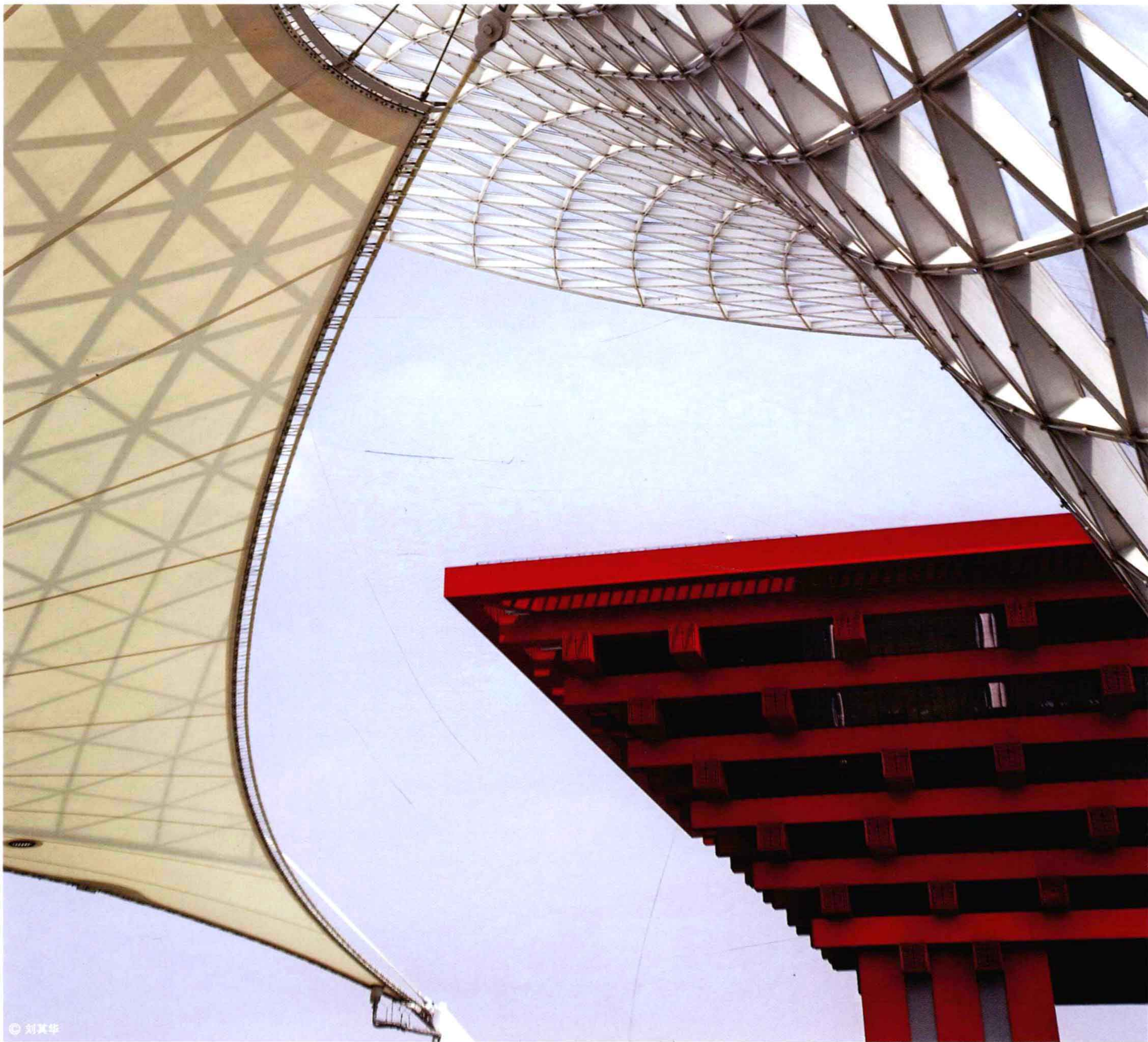
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A corner of the China Pavilion

World Exposition has provided golden opportunity to conduct great experiments in human society. It symbolizes the progress of the world, embodies the ideology of society and the human race, and promotes development and dissemination of people's ideals. The 21st century is a century of the city. Based on this premise, the theme of this Expo has been defined as "Better City, Better Life," the core value of which is the sustainable development of harmonious cities. Paying attention to city, and to the relations between it and nature, and to our living condition, we can build and create a much better city, pushing forward the sustainable development of all the cities in the world, when and if we spare no efforts to explore the idealistic city in the future to pursue a good, quality life by way of describing, displaying, studying and discussing and exchange of ideas on the theme. How to build a city in the balanced development between its natural ecology and social ecology has become one of the key curriculums of the theme deduction of the Expo. It is not only a problem that the developing countries have to put it on the list of priority for consideration, but also one the developed countries have to face and solve.

The world expo has made all the people of the world united to explore this problem and aspire for the future. The Japanese architect Kenzo Tange who was in charge of the planning and pavilion design of the Expo Osaka 1970, believed that "the chief purpose of the modern expositions should get together those people worldwide who represent the wisdom and cultural crystal of human kind, and exchange ideas and feelings face to face with each other." World expo encourages people to advance forward, promotes the fusion of cultures, and creates the exchange space and platform.

World expo has promoted the development of urbanization in the world. It has not only fully promoted the development of constructions in the world expo park, making a new city space take shape, but also renovated and reformed the old city on a large scale. The park is just like a city, developing from its first layout to an important part of the city space, from the earlier single buildings to groups of exhibition constructions, in addition to a great deal of other auxiliary ones, such as the conference center, art performing center, multifunctional center, as well as various service facilities, involving all kinds of activities of urban life. The world expo park has become a small city fully equipped with various facilities. Bridges, tunnels, subways, bus stations, and parking lots and many other large traffic services are part of the constructions. Even the whole city that hosts the World Expo has built up a great number of various constructions so as to upgrade their quality.

World expo is also a world architectural exposition with various pavilions and constructions in the park as its exhibits. It is a stage for master architects to develop their wisdoms and gifts, and for future masters to fully demonstrate their talents. It has become a classroom and laboratory to cultivate world-class masters of architects. Under the condition of not taking into account of the surrounding situations and the complex functions of constructions, architects can create a totally new construction space, fully developing their imagination and creativity. World expo acquaints the world with architecture as well as with architects. It popularizes the conception of architecture, laying a foundation for building more beautiful architecture in the whole world.

World expo constructions are pioneer of the future, epitomizing the cultures of various nationalities and countries, and symbolizing the times and the culture. They lead the development trends of ideology

and technology of the world architecture. Some of the constructions embody a new technology or a new type of construction in experiment, or some are typical of different world outlook and values in different countries and regions, or a high level of artistic value. These constructions are representatives in appearance of the cultures of various countries and regions, becoming the symbol of a particular country. The creations of these constructions in architectural space and technology have changed the urban lifestyles to a certain extent, or changed the people's space idea and experience. Moreover, all the hosting countries and cities have shown different styles and features, lifestyles, aesthetic tastes and values in different historical stages in terms of their constructions, planning and layout.

Although these constructions were mostly temporary, remaining a short period of time in history, and would be demolished, or damaged, or taking on an itinerant exhibition after the world expo. Only a few could be left over forever or reconstructed, while most of them merely remaining in people's memory, in the press reports, photos, or cinema files. They usually passed away silently before people could have known them much. However, they would become eternal monuments in people's mind and in the historical records.

In history, many such constructions have not only become the symbols of that particular world expo, but also landmark constructions of the city, even of the country. Because of its grandeur and large scale, since more than one hundred pavilions were built, polycentric samples of constructions in this world expo have appeared. The age marked by only one landmark and heroic construction has gone forever. Every country now pays more attention to the intrinsic quality of its pavilion, and to its ecological value.

In history, Shanghai had been honored as a universal architectural exposition. The present world expo has drawn more participants into it than in any other expos in its history. And the number and scale of constructions, or the extent of their diversifications, are also the greatest ever seen in its history. In the Urban Best Practice Area in Puxi district, the best and top green constructions are aggregated, becoming the creams of constructions in the expo. The Shanghai World Expo, following the Expo 2000 Hanover, has been devoted to the practice on experimentalism of world architecture as well as its embodiments of vanguard and criticism, showcasing the creativities of architects in various countries.

This World Expo has hit records in history in many aspects. Apart from the largest area of its park, the ever largest number of participants and visitors, and pavilions in the greatest quantity, the number of publications released for this expo is also the most ever seen in its history. The China Architecture & Building Press published this album of Architecture at Expo 2010 Shanghai in advance of the opening of the world expo is intended to help visitors have a good admiration and more complete knowledge of its constructions, opening a door for building more beautiful constructions in China and the world in the future and for keeping an everlasting memory of the architecture at the World Expo 2010 Shanghai.

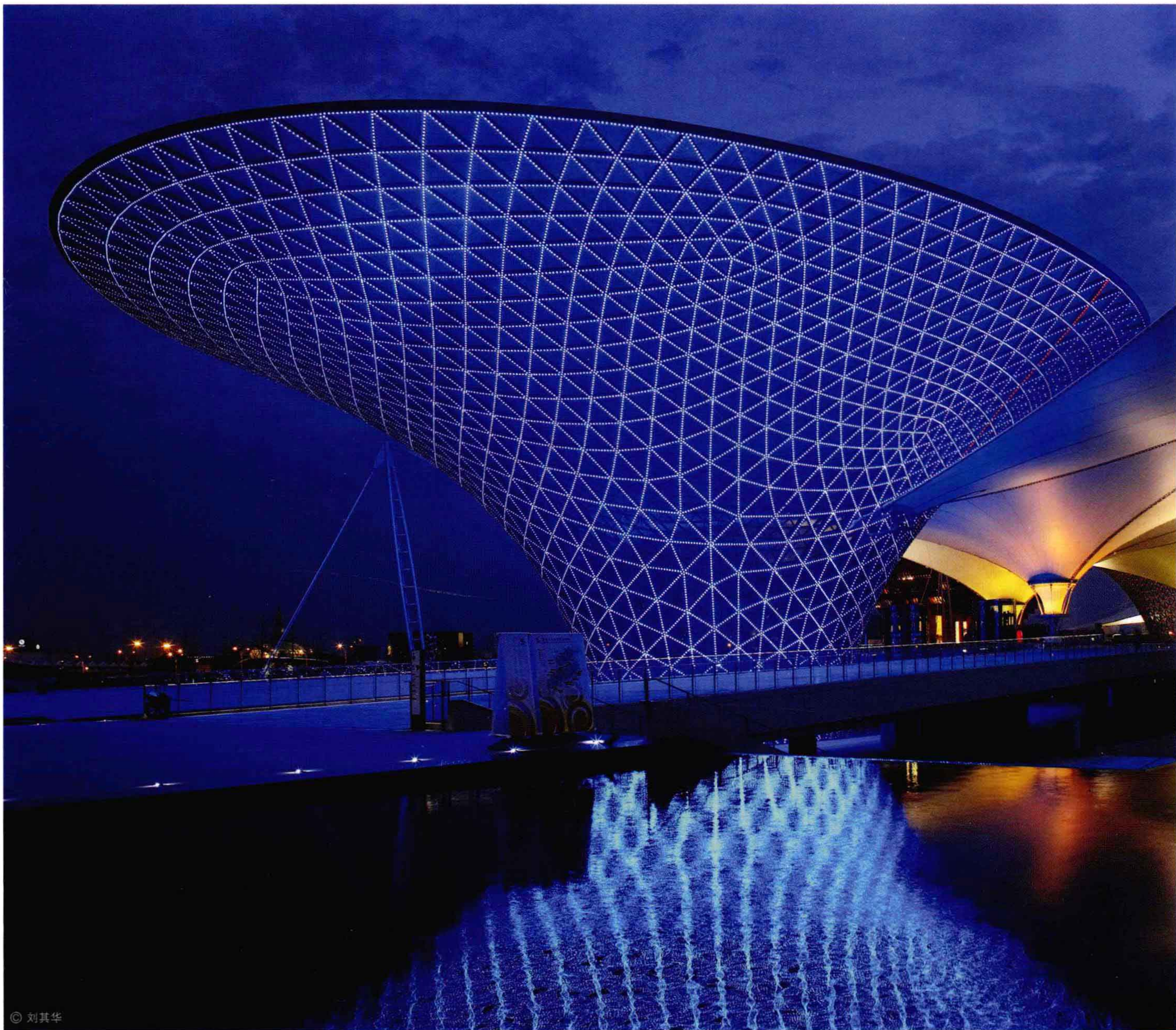


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Advisor on the theme deduction to the Expo 2010 Shanghai

April 20, 2010



Night view of the World Expo Boulevard

Architecture as the solidified bearer of the development of the material civilization and spiritual civilization of human kind, has recorded the civilization development of different regions and nations. In the history of World Expo, this comprehensive bearer of architecture embodied its advantages as the “exhibit” of the world expo. It was mostly concerned by the world in advance of the inauguration of the expos. The crystal palace of the 1851 London World Expo, the Eiffel Tower of the 1889 Paris Expo, the Atomium tower of the 1958 Brussels Expo, the space needle tower of the 1962 Seattle Expo, the Lisbon eastern station of the 1998 Lisbon Expo, and the Finland Pavilion of the 2000 Hanover Expo, all represented the highest level of the architecture technologies and design concepts of human kind at that time and attracted widely interest of people as soon as they were built up. Constructions at the 2010 Shanghai Expo had become the exhibits of an architectural expo in advance of it was officially opened with features of their diversity, conceptualism, nationalism, and futurism.

The theme of the 2010 Shanghai Expo is “Better City, Better Life.” The urban problems and the sustainable development of human civilization which are the focuses of the theme become the typical features of the architectural design principle of this expo. No matter what they might be like, an abstract construction with strong conceptualism such as the ROK Pavilion that embodies the patterns of Korean alphabets; or the Germany Pavilion floating in the air, or the image constructions embodying national cultural features such as the Poland Pavilion covered with paper-cutting patterns of its folk arts, or the renovated pavilions on the basis of old workshops such as the Jiangnan Shipbuilding Works; or the newly designed pavilions embodying the updated science and technology of architecture such as the sunny valley of the World Expo Boulevard, and the solar energy panels of “double-layer glass elements” of the China Pavilion, all of them represent the most advanced products of human civilization embodied by the constructions of this Expo, and the trends of the fusion of multi-cultures in the situation of globalization. Just as the past expos, the participants and international organizations of this expo attached importance to the constructions, engaging the world famous architects to design the pavilions. All the final designs are carefully screened and examined from candidates, making the expo an arena for competitions among world designers, and the architecture expo to exhibit the latest architectural conceptions and technologies. With diverse models, these constructions have all adopted the latest design concepts, materials, and technologies, and blended them with the traditional culture of various countries, becoming the unique landmark construction respectively of each participating country and jointly constituting this “world architectural gala.”

As the key element of the expo site, the constructions are either the venues for holding exhibitions and activities, or are glistening exhibits

themselves. Five permanent pavilions along the “one boulevard and the four pavilions” lead the groups of constructions on the site, most of which were designed by Chinese domestic designers in the steady and imposing styles, proper and restrained. Foreign self-built pavilions, small-sized and simple of functions as temporary constructions, were designed in unconventional way, bringing the creativity of architects into full play. Each country, region or organization has its own aspect of concern, such as low carbon emissions, environmental problem, and equality and slum problems. Each participant hopes to express its own cultural spirit and conception of value by means of the Expo and mingles them with its design of pavilion. It is worth noting that the “Urban Best Practice Area (UBPA)” has provided a chance for the cities around the world for the first time to join in the exhibition independently. Visitors will observe the city theme of the 2010 Shanghai Expo being deduced and the green constructions are practiced. The organizers establishing this UBPA itself was also a process of practice in reference: the ratio of the number of pavilions renovated from old workshops is more than 50%. The historical and industrial heritage constructions used, protected and added by this Expo cover a total ever largest area since the first world expo in 1851.

As for the architectural and building industry, this Expo is a gala of world new architecture, and it will make an important historic record in the world architectural development. Owing to most pavilions to be removed after the world expo, to record all these fine constructions will be the unshirkable responsibility of the Chinese architectural industry. China Architecture & Building Press, one of the largest in the country, has always been devoted to the development and protection of Chinese outstanding architectural culture, promotion of the science and technology of the industry, and popularization of achievements of constructions in China. During the process of preparations for the Expo, CABP has always been concerned about the planning, design and construction of the pavilions and organized a great number of architects who were involved in the design of construction for the Expo to write articles to introduce in detail the pavilions of various countries and regions. Any readers, public or professional, can observe a panorama of architecture of the Expo through this album. It is not only a feast of vision for readers, but also leaves an architecture cultural heritage for the world architectural industry to remember.

This album, through the design and recollection of professional designers, and illustrated with a great deal of refined photos and detailed plane, elevation and sectional line drawings, will introduce the advanced architectural concepts to the masses of professionals. We hope the descriptions of pavilions provide not only information on the individual technological development of each one, but also unfold and forecast the new tendency of technological development in the future.

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World Expo Boulevard

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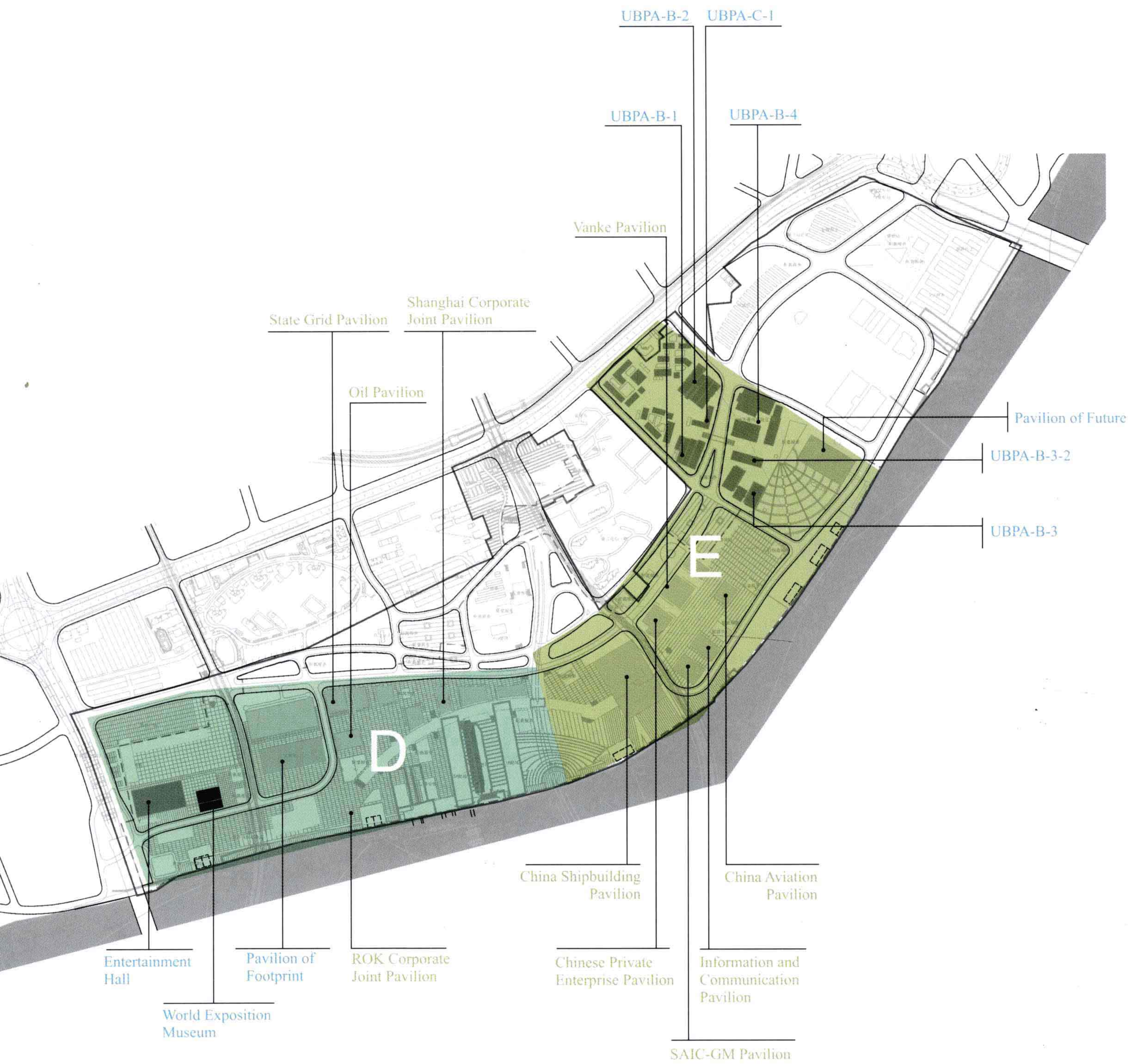
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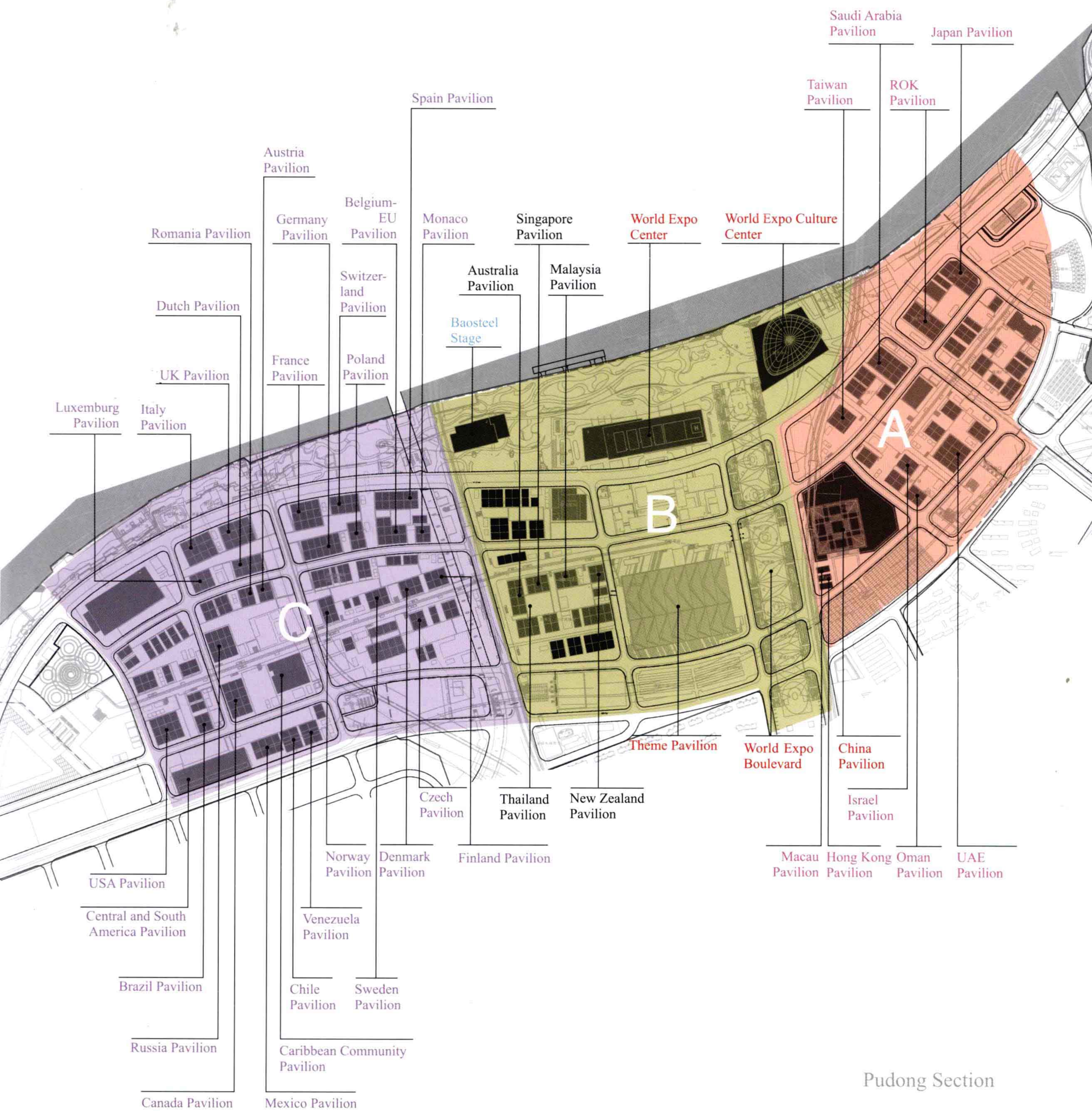
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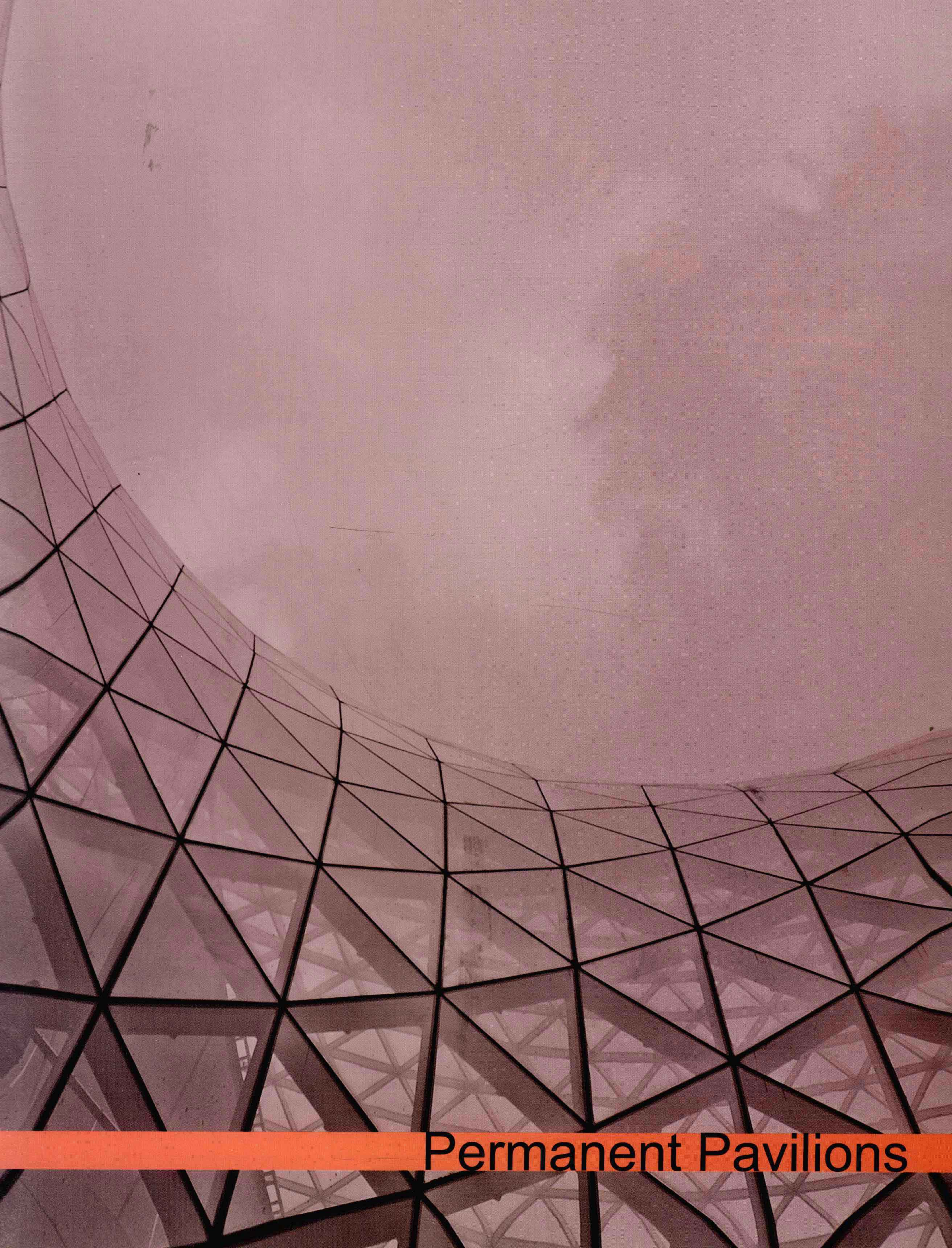
Tour Map of the Expo Site



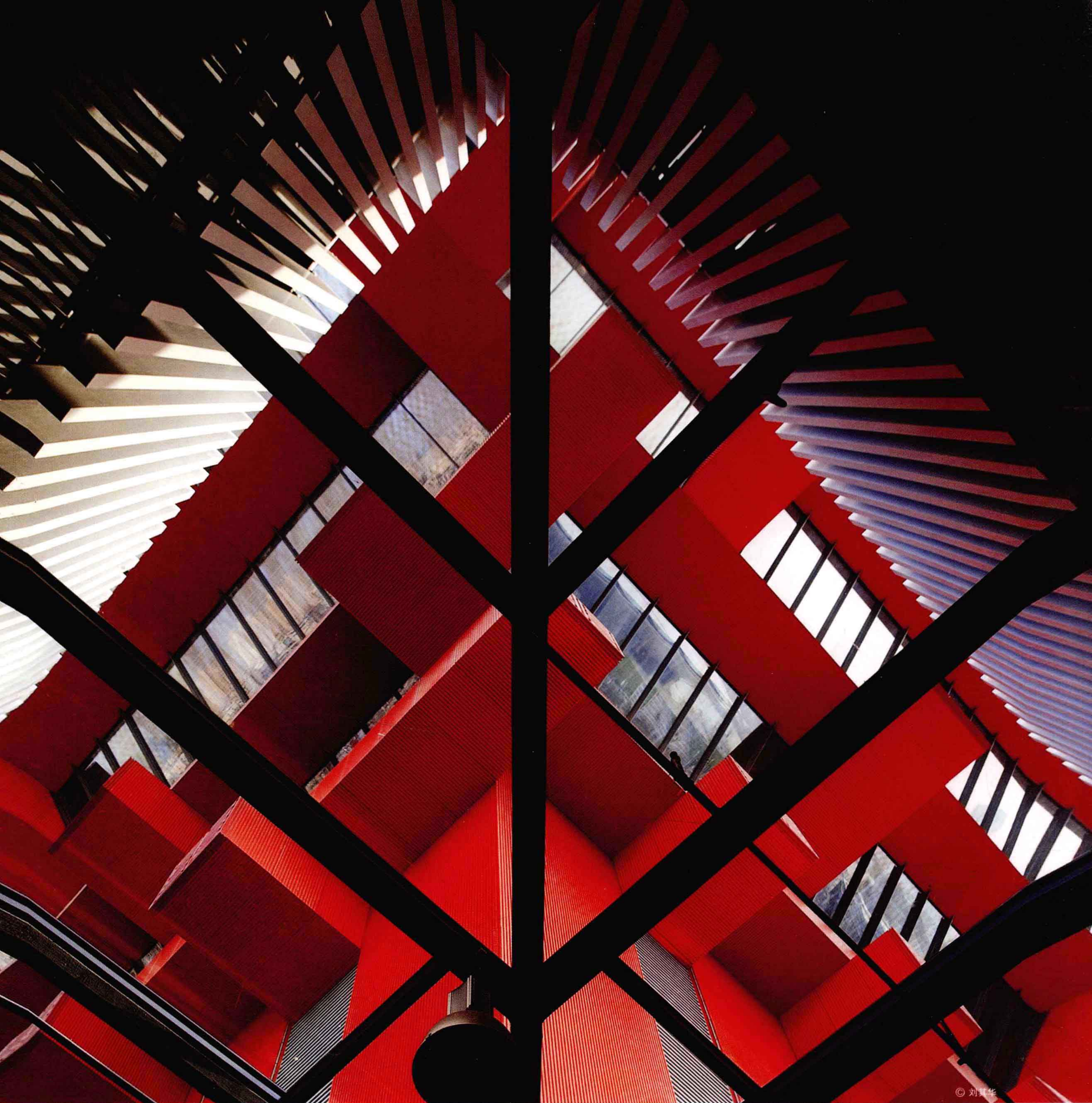
Puxi Section







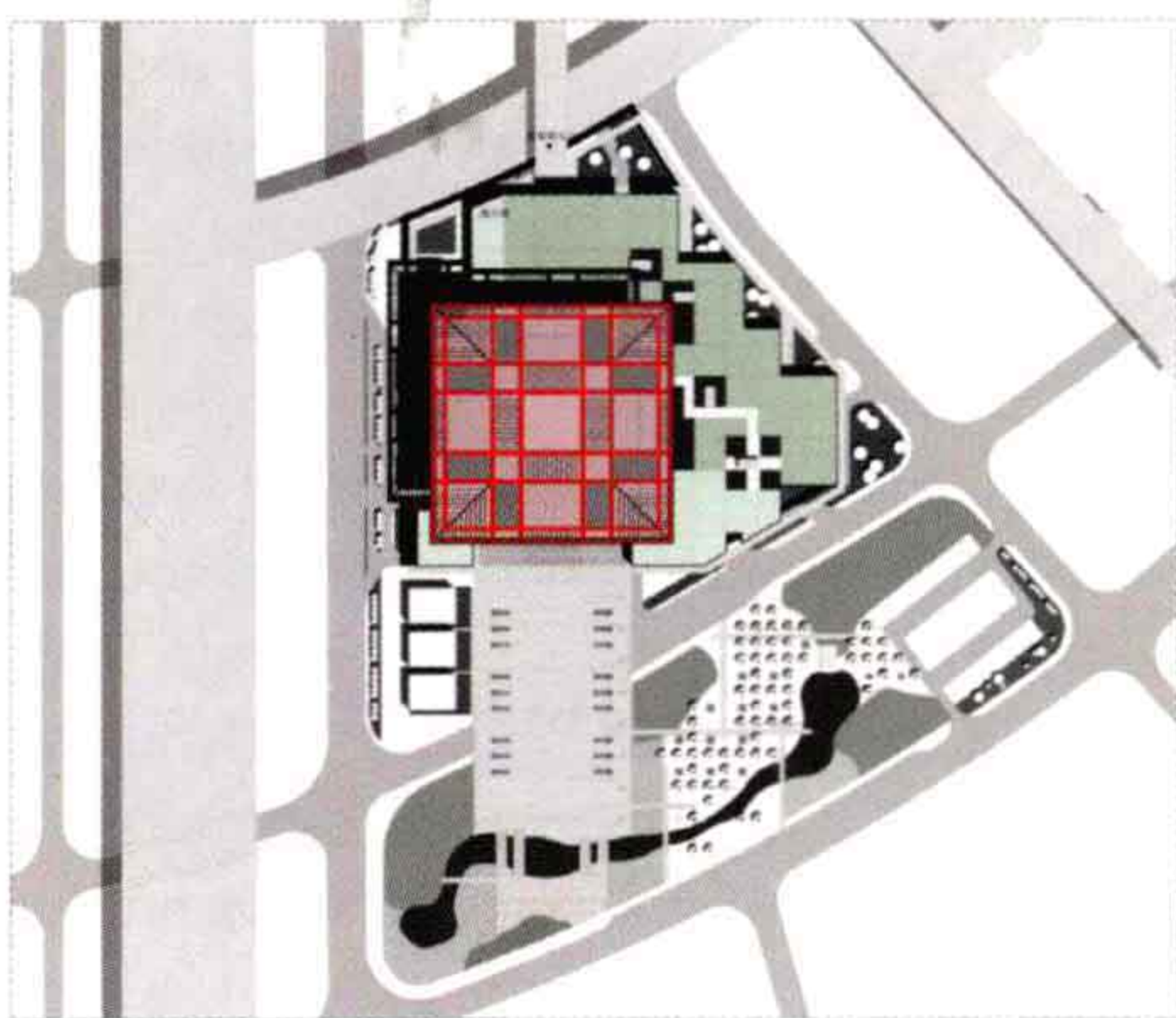
Permanent Pavilions



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China Pavilion

Zone A



Site plan

Location: Pudong Zone A

Covered Area: 7.14 hm²

Construction Area: 160,000 m²

Height: 60.6m (eaves), 69.9 m (the highest point), 25.2m (overhead platform)

Number of Floors: 3 (State Pavilion), 1 (Regional Pavilion)

Designers: Architectural Design Research Institute of South China University of Technology (ADRI, SCUT)

Beijing Tsinghua Andi Architectural Design Consultancy Co. (BTAndi ADCC)

Shanghai Institute of Architectural Design & Research Co. Ltd. (SIADR)

Head of Project and Chief Architect: He Jingtang, academician (ADRI, SCUT)

Deputy Chief Architects: Zhang Li (BTAndi ADCC)

Ni Yang (ADRI, SCUT)

Yuan Jianping (SIADR)

China Pavilion with its model of “bracket crown,” typical of Chinese architectural element, and covered with seal characters on its surface as the theme, uses the unique architectural language in which numerous Chinese people placed their aspirations and dreams for the World Expo.

With the theme of “Oriental Crown” to express the spirit and qualities of Chinese culture, the design idea can be described as “crown of the East, a prosperous China, a barn of grains for the whole world, well-off people.” It is 63m high, with overhanging floors looking like a city sculpture, being a landmark of the pavilion. The regional pavilion is 14 m high, spreading horizontally, as if to extend the grains of city, which serves as the solid base of the construction and the space for city public activities.

The pavilion absorbed the laws for building traditional Chinese cities, the grains of composition and the framework system of traditional constructions and the features of bracket model to make up its shape. Using the execution of the modern three-dimensional composition of interlocking, a cubic spatial model system with a modular figure of 2.7 m of closely structured and over-hanging floors is thus composed. This system looks majestic as a whole with a sense of overwhelming power and meets the requirements of exhibition space as well as of the mechanic taste of modern engineering and technology.



Bird's eye view of the China Pavilion

In the design, the “China red” boards fitted onto the outer walls had been a major subject of study. China red has always been an indefinite idea of red color. It denotes different colors in different time and space, such as cinnabar, vermillion, and bright red. Red color displayed in the Hall of Supreme Harmony involves five kinds. After an overall analysis of the color, the designers adopted the proposal made by professors of the China Academy of Art that “China red” can be produced by mixing up various kinds of red colors that are of little difference. The red color painted on the pavilion is a mixture of four different red colors, applied onto the construction progressively from a thicker color to a thinner color down to the bottom from top to suggest a feeling of layers upon layers.

China Pavilion is composed of the State Pavilion and the Regional Pavilion. The State Pavilion is designed to arrange its exhibition under the theme of “Better City, Better Life”, and focusing on the content of “Chinese wisdom in the development of cities.” The Regional Pavilion will provide exhibition halls for the 31 provinces, municipalities directly under the central government, and autonomous regions (not including Hong Kong, Macau and Taiwan) to display different customs and ways of the multinational China. After the World Expo, the State Pavilion will be used as a base to display the country's history, culture and art. And the Regional Pavilion will be turned to be a standard exhibition hall, and developed as a modern service center together with the Theme Pavilion, star



Entrance of the China Pavilion

hotels, the World Expo Center, the World Expo Boulevard, and the Culture Center in its surroundings, mainly for holding conferences, exhibitions, business activities, and accommodations.

To distinguish the theme of city and the publicity, the designers not only pay attention to the planning of urban public spaces, but also to the outstanding problem of limited land in cities and they give a definite response to it. They in the design make the State Pavilion raise up with overhanging floors opening up a series of city square spaces starting from the front square to the overhead platform and roofing garden for visitors and urban residents.

Vertical traffic service in the pavilion is also planned by designers for visitors. Through four vertical passageways to link the Regional Pavilion, State Pavilion and the overhead platform, visitors can reach various halls on the upper floors.

- 1 Exhibition halls of the State Pavilion---split-level layout, spiral ascending, and gradual expanding
- 2 Sightseeing terrace of the China Pavilion
- 3 The city garden of the China Pavilion
- 4 China Pavilion square
- 5 Exhibition halls of provinces, municipalities directly under the central government, and autonomous regions

