

HANGZHOU: THE SUSTAINABLE STADIUM OF THE EXTRA CLASS

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Two new stadiums will be completed this year in Hangzhou, the capital of the Chinese province of Zhejiang. They are part of a 116-hectare complex where parts of the Asian Games 2022 will be held - the largest multisport competition in the world after the Olympic Games. From the very beginning of the plans, the responsible architects **Archi-Tectonics** attached great importance to ensuring that the complex could be used after the Asian Games. Various events can then take place in the large park and nature can be explored.



© Archi-Tectonics

Two stadiums in the Hangzhou Asian Games Park in Hangzhou will soon be completed, designed by the New York architecture firm Archi-Tectonics. As a result, the entire 116 hectare complex, also designed by Archi-Tectonics, is nearing completion. The office developed the master plan and the drafts in cooperation with! Melk Landscape Design and Thornton Tomasetti Engineers. The construction work should be completed in 2021.



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The new stadiums are table tennis and field hockey stadiums, each with a capacity of 5,000 spectators. They will frame the kilometer-long park and will be one of the venues for the Asian Games in 2022 - after the Olympic Games, they are the largest multisport competition in the world.

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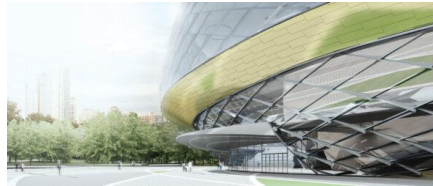
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An important idea behind the master plan is to preserve the stadiums and the park. They are intended to become a unique public leisure complex in the city. To this end, the architecture office has worked through various options for public use. The planners absolutely wanted to ensure that the complex would remain an active meeting place for urban life in the years and decades to come. For example, the table tennis stadium is equipped with a hybrid seating system that combines stadium and amphitheater seating. This means that concerts or other performances can take place there in addition to sporting events. The field hockey stadium, on the other hand, can be converted so that there is also space for night markets and open-air events.



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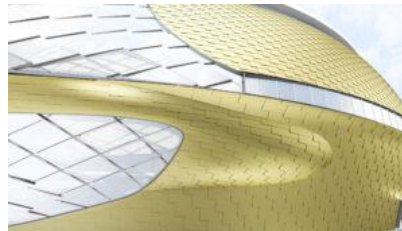


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Overall, the 365,000 m² table tennis stadium forms the architectural heart of the new development. It is optically inspired by the Cong, an ancient Chinese jade stone from the Hangzhou region. Its shape can be described as a square tube with a circular bore. Archi-Tectonics chose this form to enable an efficient conversion of the stadium into an event location. The final design provides for a

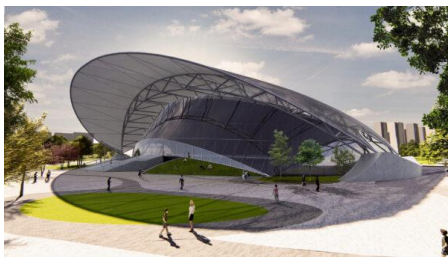
shell clad with bamboo, which makes exactly that possible. The building also includes additional areas for restaurants, VIP lounges and retail areas that create a dynamic environment. A light-flooded lobby wraps the entire building and regulates the flow of spectators.

The stadium has a so-called curved Diagrid facade. Diagrid is an innovative approach that combines the building's lateral and gravity bearing capacity in a single diagonal grid system. This means that no additional columns are required.



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WING ROOF BASED ON A TRADITIONAL PARASOL



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The field hockey stadium on the opposite side is characterized by its translucent wing roof. Here, too, the architects based their structure and materiality on one object: the traditional parasol made of oil paper and bamboo. Like a parasol, the roof provides the stands, the playing field and the entrance area with shade and at the same time represents a sculptural element of the park. An oval lawn area serves on the one hand as a playing field, on the other hand as a landscape element and can therefore easily be converted into an outdoor event

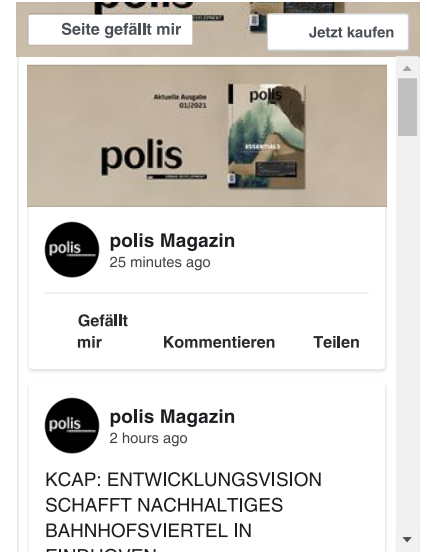
location. A curved glass facade surrounds the lobby, which leads to an impressive interplay of light and shadow. Traditional surfaces such as interior walls clad with bamboo complement these modern elements,

The design also takes into account the infrastructure for subsequent use in order to be able to convert the complex seamlessly after the end of the games. Local public transport is said to be the main mode of transport used to reach the park. There is also a 645,000 m² car park below the park, which can be used primarily for major events, for shopping in the nearby mall, for walks and for nearby leisure activities.



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“Without a plan for the future, projects like this run the risk of becoming unused, expensive to maintain and disrupting the fabric of a city. We planned the Asian Games Park with the future of Hangzhou in mind and designed it to become an



THE COMPLEX IS TO BE AN "ECO-VILLAGE"



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In addition to the sustainable reuse of the stadiums, great importance is also attached to a good energy balance of the complex. For example, special solar wings drive a system for outdoor lighting in the park so that it can be safely and conveniently accessed and used at night.

In addition, the entire Archi-Tectonics concept follows the idea of an "eco-village". Located in a lively high-rise district, the complex is intended to combine social landscapes, community buildings and land forms such

as nature reserves. Since the aim is to integrate the complex closely into the existing urban fabric, the eco-village functions as a kind of urban sponge: it is a green lung that collects rainwater, filters it and then reuses it.

The stadiums should be located at both ends of the extensive, linear area. They will also be connected to a lower promenade that runs under an existing road. There are numerous restaurants and cafés, shops and outdoor lounge areas, which form the social heart of the area. The surrounding park becomes a landscape of small wetlands and rolling hills. The latter partly function as nature reserves and contribute to increased biodiversity.



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