Dates and facts

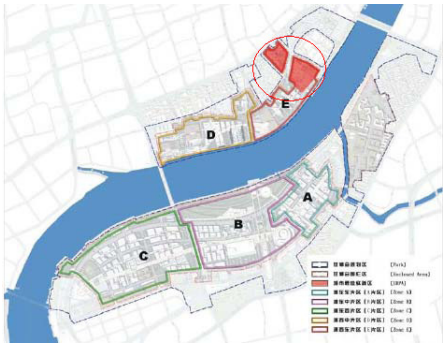
Urban Best Practices Area (UBPA)

Background: The Urban Best Practices Area (UBPA) will be presented for the first time in the context of the International Exhibition 2010. It offers selected projects the opportunity of contributing to the exhibition by presenting urban best-practice projects in Shanghai.

Size: 37.3 acres

Participants: 59 countries

Location of UPBA:



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Location Hamburg House:



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Hamburg House

Hamburg: Right in the north of Germany, directly on the banks of the river Elbe, lies the Free and Hanseatic City of Hamburg, which not only is a city but also one of the 16 states of Germany at the same time. With 1.8 million inhabitants it is the second-largest city in Germany.

Hamburg is home to many of the top-500 companies in Germany. Hamburg's port keeps the economy going. It is the bridge to Europe, overseas and the Far East and is the European centre for trade with China. As the largest European trade partner of China, Germany ranks sixth world-wide. More than half of the German trade with China is handled via the Port of Hamburg. Hamburg's trading houses have been represented in China for more than 100 years, and the number of Chinese companies in Hamburg nearly is the highest in Europe with 400 companies located in the city. Since 1986, Hamburg has close ties with Shanghai due to a twinning project.

Hamburg also has an excellent reputation as a city of culture, mainly due to the especially varied and high-quality cultural offer. More than ten million people visit the theatres and concerts, musical theatres and museums of the city every year. Hamburgische Staatsoper, the state opera established in 1678, is one of the top opera houses in Europe. With Laeiszhalle – Musikhalle Hamburg, the city already has a concert hall of international renown prior to the completion of the new Elbphilharmonie.

However, Hamburg also is Europe's green metropolis on the waterside: lush green areas in the middle of town – along the streets and squares, in the parks and along the channels, nature and urban life are close together in Hamburg. In this metropolis full of industrial facilities, economic activity and traffic, environmental protection and climate protection have top priority. This shows in the comprehensive climate protection concept of Hamburg's Senate, the high air quality and a well-developed public transport system. As an answer to economic growth and the constant demand in housing, Hamburg is growing towards the inside through industrial zones that are refurbished in an exemplary manner. Hamburg proves that people living in an industrial location can also benefit from a high quality of life.





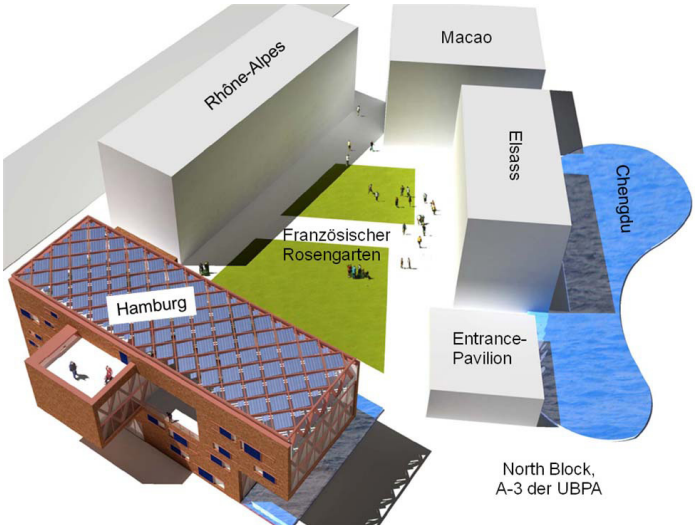


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Expo contribution:

Hamburg was chosen as the only German city by the International Selection Committee to contribute to Expo 2010 with its own building project. It will be the only German contribution with a permanent building which can also be used after the Expo.

Location in UBPA:



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HAMBURG HOUSE · Expo 2010 Shanghai

Hamburg

Ordering party:
Free and Hanseatic City of Hamburg, represented by the Ministry of City Development and Environment

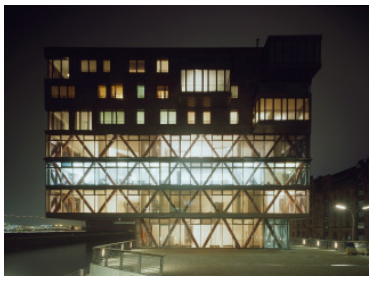
Architecture & building concept:
ARGE Hamburg House:
Spengler • Wiescholek / Dittert & Reumschüssel

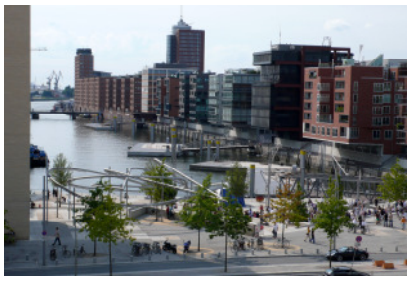
Framework expertise for exhibition concept:
ARGE Exhibition Concept: Hamburger Kuratorenteam Expo Shanghai (HKTES)
Kontrapunkt – Agentur für Kommunikation GmbH / Design Factory International / AHL • Büro für Ausstellungskonzepte

Project description:
Hamburg will be constructing a model building showing top-level environmental technology for Expo 2010 Shanghai, which combines living and working under one roof. The architecture of the Hamburg House combines traditional and modern elements of Hamburg and is an example for sustainable building according to the HafenCity Hamburg Ecolabel, category 'Gold'. It will probably be the first certified new building project for a passive house in China and set new standards. What is special about the Hamburg House is its simultaneous use as an exhibit and an exhibition space. With the reference building in HafenCity and the Hamburg House, Hamburg is a good example for how to implement modern environmental standards in old and new buildings.

Net floor space:
2.300 m²

Reference building in Hamburg's HafenCity:





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Building concept:
The building concept of the Hamburg House develops the principles of energy-conserving construction with the passive-house standard on the basis of the reference building in Hamburg's HafenCity under consideration of the climate in Shanghai.
It offers comfortable living at heating requirements of less than 15 kWh/(m²a) and a primary energy requirement of less than 50 kWh/(m²a). The passive house achieves these amazing savings in energy with the optimisation of the architecture, the building envelope and the energy technology used.

A compact, massive body with a well-insulated, air-tight building envelope free of heat bridges reduces energy consumption in summer and winter for heating and cooling. Passive sources of heat such as the sun, people or household appliances cover the largest part of the heat requirement. The centralised ventilation system supplies heated or cooled and dehumidified fresh air to all rooms in the building.

Energy for heating/cooling the building is produced via a geothermal heat pump for generating hot and cold water. The 35-m pile foundation that is necessary anyway can be used geothermally by laying a network of pipes through the piles.
The building is mainly heated and cooled by adjusting the temperature of the concrete cores of the ceilings.
An added-feature ventilation system with waste heat recovery provides fresh air. The central ventilation system positioned on the roof is equipped with a highly-efficient heat recovery system with an efficiency of at least 90% for heating tasks and 80% for cooling tasks.
A 450-sqm photovoltaic system installed on the roof delivers approx. 80% of the required electric energy for operating and using the building.

EXPO SHANGHAI 2010 上海世博会
HAMBURG HOUSE
汉堡之家
HOME OF HIDDEN ENERGIES 节气博览家园

Topics & content of the exhibition:

Home of Hidden Energies

The Hamburg House is the first passive house in China. In a literal and metaphorical sense, it embodies the “hidden energies” of sustainable building culture and represents the secure, pleasant and human aspects of a sustainable urban society and way of life with its pleasant room climate, human proximity of the units for working, living, catering and economy as well as its comfortable building materials (Home of Hidden Energies/in Chinese “Home of living energies and humanity”).

The visitors to the exhibition will experience themselves being a part of a living organism, which they can influence with their energy and initiative. Buildings and visitors are full of hidden energies that are waiting to be discovered. Passivity now can be understood as the hidden activity of human and architectural potential.

The Expo motto “Better City, Better Life”, supplemented by “Better Building”, will be specified in more detail in the topics of the exhibition of the Hamburg House: the human aspect of the sustainable urban society and the secrets of hidden energies – in life, in the city, in the building.





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