



German Pavilion at EXPO 2010 in China

Architecture: Schmidhuber + Kaindl/Exhibition: Milla & Partner

# Balancing act for Shanghai

The German Pavilion at EXPO 2010 in Shanghai has been named “balancity”. The basic concept of a modern German city and the balancing act it must master is reflected in the architecture of the pavilion – a three-dimensional, walk-through sculpture that represents the diversity of life in German cities.

Schmidhuber + Partner from Munich developed the project using Allplan.

The German Pavilion for the EXPO 2010 trade fair in Shanghai posed a challenging task for Schmidhuber + Partner GbR. However, Lennart Wiechell, project manager and one of the directors of Schmidhuber + Partner, explains the beauty of the task as follows, "Compared with other projects, we had a lot of design freedom with the EXPO pavilion. We could experiment and managed to create something that was more of a walk-through sculpture than a building." Visitors can explore the pavilion and see what delights it holds.

Lennart Wiechell was also excited to be working in China for this project. In the context of harmonization with the host country, the project drew on two aspects that very much reflect the preferences of the Chinese people: the gardens that are so popular in China and the subject of providing shade, which is especially important in the very hot climate of Shanghai.

The Munich-based company Schmidhuber + Partner specializes in brand architecture and temporary buildings, office and interior design, exhibition design and events. Schmidhuber + Partner were awarded the contract for the architecture and general planning of the German Pavilion by the trade fair organizers Koelnmesse International GmbH, on behalf of the client, the German Federal Ministry of Economics and Technology. The tasks ranged from architectural design to project coordination and supervision of on-site execution. Other partners in the German Pavilion venture included Milla & Partner, responsible for exhibition and media planning, and Nüssli (Germany), which undertook project management and construction work.

Through its project for EXPO 2010, Germany wanted to present itself as a multi-faceted nation that is rich in ideas, as well as an innovative and forward-looking country that also places great value on the preservation of roots and heritage. Diversity and balance, rather than uniformity, are vital for the cities of tomorrow. Hence, the German contribution to the "Better City, Better Life" theme at EXPO is "balancity", a city in balance between renewal and preservation, innovation and tradition, urbanity and nature, community and the individual, work and leisure and, finally,

globalisation and national identity. The Schmidhuber + Partner team were tasked with ensuring this central concept could be sensed throughout the German Pavilion.

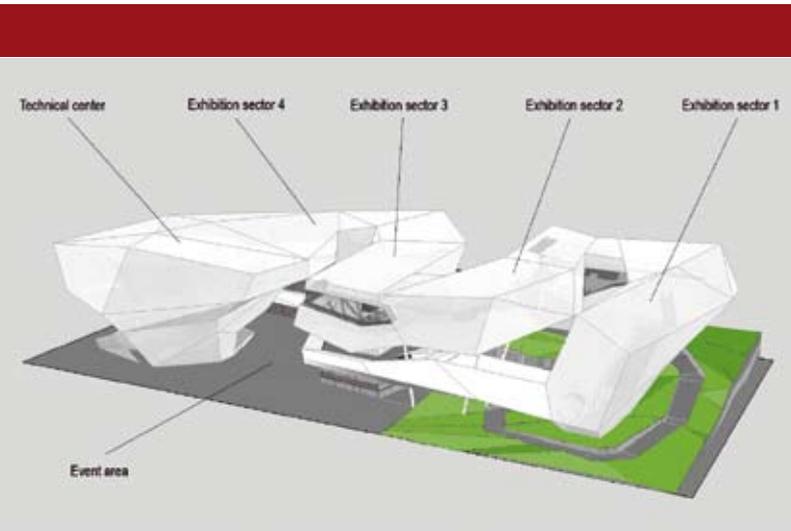
### **Visitors wander through typical urban spaces**

The pavilion is located on a sizeable plot measuring approximately 6,000 square meters and incorporates a variety of functions. The south side contains the basic infrastructure with service and technical support rooms. The north side is the representative side to be experienced by the visitors. The restaurant, the entrance to the exhibition, the souvenir shop and the event area are accessed from the north-west EXPO plaza.

In terms of structure, the pavilion is composed of two key elements: a walk-through, terraced landscape with event area which extends from the ground level up to the third floor and a building structure with four exhibition areas that create a roof, protecting visitors from the sun and rain. These four exhibition areas represent typical urban spaces: spaces for work and thought, spaces for freedom and recreation, places to live in and spaces for culture and community. The route through the building ends in the Energy Centre and, from there, three flights of steps take visitors back down to the event area.

### **Smooth workflows with Allplan**

Lennart Wiechell thought the Allplan software was excellent, especially with respect to exchanging information. The Munich-based architect explains, "Interdisciplinary coordination with structural engineers and building services technicians, for example, presented a real challenge. However, it went very well with the data exchange formats supported by Allplan, especially DWG and PDF – even on site in China." This was not a given because there was a considerable flood of data that had to be imported and processed. Equally smooth was the interface to the Rhino modelling tool. This program was used to create a 3D model that facilitated integration of the steel construction, building services, interior fittings and the membrane. This 3D data had to be continuously re-fed into the 2D plans and therefore transferred back into Allplan.



The second major advantage of Allplan related to working in a team. Lennart Wiechell explains, "We have been working with Allplan for ten years and have put the program the test time and time again. And we always end up choosing Allplan because its options for working in a team are simply unbeatable." During the busiest phases of the project, ten to twelve employees would be working on the 2D plans – all working at the same time but on different sections. The Allplan Workgroup Manager makes it possible for everyone to work on the same floor plan without interfering with each other's work."

### 2D versus 3D

Allplan was used for all the 2D planning for the German Pavilion: floor plans, sections, views and detailed planning – in other words, practically everything that had to be supplied in plan form. Communication between planning partners also took place on the basis of 2D plans. "2D is still important for the development and structuring of a project. However, in recent years, the use of 3D has taken huge strides with respect to design and manufacturing possibilities," says Lennart Wiechell in summary. The EXPO 2010 in Shanghai commences on May 1st. Visitors from around the world will be able to explore the German Pavilion at their leisure and learn about life in German cities.

