

OSKAR VON MILLER FORUM

Press release

Exhibition opening at Oskar von Miller Forum on 6 November 2014

The Oskar von Miller Forum and the M:AI Museum of Architecture and the Art of Engineering of North Rhine-Westphalia present, as part of the exhibition entitled "Bearing lines – bearing surfaces", the design principles underlying the work of Stefan Polónyi. The exhibition will be opened at 6.30 pm on 6 November 2014 and can be viewed, admission free, until 30 November 2014 at the Oskar von Miller Forum in Munich.

Stefan Polónyi counts among the pioneering engineers of the late 20th century. Working in collaboration with numerous prominent architects, the marriage of design and material is the challenge he sets himself in each project. Drawn from a selection of particularly outstanding projects, the exhibition shows unusual solutions for the design of supporting structures.

At the opening of the exhibition, Stefan Polónyi will give a keynote lecture on the topic of "paradigm shift". Ursula Kleefisch-Jobst, general curator of the M:AI Museum of Architecture and the Art of Engineering will then introduce the exhibition.

The exhibition

"It is not the task of the engineer to explain to the architect that it doesn't work, but rather to show how it can work" (Stefan Polónyi).

Among other things with bridge structures for the International Building Exhibition from 1989 to 1999 in North Rhine-Westphalia, Stefan Polónyi showed how design principles can be realized in ingenious supporting structure solutions. The exhibition illustrates how architects' designs are influenced by Polónyi's supporting structure solutions. Visitors can experience a transparent design process. With the aid of interactive models they can also probe the play of static forces.

"Bearing lines and bearing surfaces" as fundamental principles of statics, form the basis of the presentation. It is precisely bearing lines that underlie the design principle of the Wulfen "metacity" complex of buildings, and the curved lines of the distinctive bridge over the Rhine-Herne canal (Nordsternpark in Gelsenkirchen). Polónyi used planar load-bearing structures as steel-concrete pleat constructions for the roofs of numerous filling stations. Curved load-bearing structures, i.e. shells, were used in the canopy over the forecourt of Cologne Central Station as well as the concrete finish of the Church of St. Suitbert in Essen.

The Models

Interactive models help the visitor of the exhibition to understand the fundamental mechanisms of action of support and weights. At the same time they illustrate how they are translated into Polónyi's most important support solutions. How do tensile and compressive forces work, how are they distributed on materials and form? How are the forces of support and weights

optimally realized in a structure? Which supporting structure solution is best suited to realize the architectural design?

All the models in the exhibition are “hands-on”. So, for example, the visitor can see with his own eyes that extreme pressure exerted on a pillar is different to the same pressure exerted on a supporting column, or that a round form can bear five times more weight than a comparable square form.

The engineer of supporting structures

After completing his studies in Budapest, establishing an office in Cologne at the end of the 1950s and a later teaching post at the Technical University of Berlin, Stefan Polónyi arrives at the University of Dortmund in 1971. His “Dortmund Model” developed there represents a new departure in teaching. He combines the degree courses architecture and civil engineering without either discipline losing its distinctive profile. He brings his understanding of the work of a civil engineer to teaching, seeks interaction with architecture so as to merge design and load-bearing structure to create a unique aesthetic. To this day, what he basically demands of his own work is that designs are appropriate for the materials used. His structures and his work have been honoured with many important national and international awards. Stefan Polónyi lives and works in Cologne.

Venue and opening times

Oskar von Miller Forum, Oskar-von-Miller-Ring 25, 80333 Munich
www.oskarvonmillerforum.de

6 to 30 November 2014, Tuesday to Sunday from 12 noon to 6 pm, Thursday 12 noon to 8 pm

Opening: Thursday, 6 November 2014, 6.30 pm