

OSKAR VON MILLER FORUM

Press Release

Paradigm shift From structural analysis to architecture

A lecture by Stefan Polónyi on 6 November 2014 at 6:30 pm at the opening of the “Bearing lines – bearing surfaces” exhibition at the Oskar von Miller Forum

In earlier times, building masters, going only on experience and intuition, made structures of “suitable” materials such as wood, stone and concrete. The use of iron and steel in the 19th century led to the foundation of structural analysis which later became the cornerstone of the building sciences. From the concept of force equilibrium, new support systems were developed whose bearing capacity could be quantified. The steel enabled the supporting structures to be adapted to the theoretically calculated systems, while structural analysis made it possible to break through the boundaries of direct experience. Using today’s computer-based aids, which have made the quantification of all kinds of objects possible, civil engineers can break free of established static systems and design support systems to suit the materials used.

Common to all designs of the distinguished structural engineer Stefan Polónyi is the fact that they are realized using suitable materials. A basic demand he still places on himself as regards his work is to think through the material and to direct the forces in the best way possible using the most appropriate materials. From the shell roof of the Church of St. Suitbert in Essen to the urban train station Reinoldi in Dortmund to numerous bridges in the Ruhr district, not forgetting the new Leipzig Trade Fair – all of these structures were developed by Stefan Polónyi working together with prominent architects.

Polónyis’ body of work can meanwhile be found in the A:A1 of the Technical University of Dortmund. A selection from this extensive material forms part of the exhibition “Bearing lines – bearing structures: Design principles in the work of Stefan Polónyi” at the Oskar von Miller Forum from 6 to 30 November 2014.

About Stefan Polónyi

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. His structures and his work have been honoured with many important national and international awards. Stefan Polónyi lives and works in Cologne.