

OSKAR VON MILLER FORUM

Press Release

Opening of the exhibition “Fascinating Construction Process“ at the Oskar von Miller Forum on 29 October 2015

FASCINATING CONSTRUCTION PROCESS

From the idea to built reality – the art of engineering by Bollinger + Grohmann Ingenieure

How are outstanding buildings created? The exhibition focuses on this question and provides unique insight into how civil engineers work. From the first sketch through the building site to the finished building – complex and sophisticated construction processes are made visible and become an experience for visitors.

The Oskar von Miller Forum is presenting this exhibition in cooperation with the engineering firm Bollinger + Grohmann Ingenieure. At the exhibition opening on 29 October, Klaus Bollinger and Manfred Grohmann will hold a lecture entitled “Fascination for construction – just a simple engineering love affair”. The exhibition will then be open to visitors every Tuesday to Sunday from 12:00 midday to 6 pm until 22 November with free admission.

THE EXHIBITION

Focusing on the whole construction process, the exhibition provides answers to the question: “How are outstanding buildings created?” and provides unique insight into how civil engineers work. The centre of attention is not finished buildings but how they emerge. In addition to the process of developing spectacular large-scale projects – such as the ECB in Frankfurt or the Lens-based Louvre branch – the exhibition also documents the development of computer-aided design methods. These are presented in depth on the basis of several selected projects, including the BMW Welt in Munich or – more recently – the ESO Supernova in Garching near Munich.

Visitors can follow the process from planning through to the realisation of buildings and take a look behind the building site fence. A selection of over 2000 worldwide projects of the Bollinger + Grohmann engineering office illustrates the architecture of the structural engineers on large-format panels. In addition, there are films and photos of various building sites to be seen. Visitors can also study the engineers’ working methods at interactive desks and by changing the parameters, generate and recalculate support structures themselves. 1:1 mock-ups of special node details and a selection of 3D models complete the exhibition.

The concept for this exhibition is based partly on the exhibition “Bollinger + Grohmann – Hinter den Kulissen” (Bollinger + Grohmann – Behind the scenes) shown at the Deutsches Architekturmuseum DAM Frankfurt/Main from 15 June to 1 September 2013.

Contents of the exhibition

FROM THE DESIGN THROUGH THE BUILDING SITE TO THE FINISHED BUILDING

Documentation of the development process of the following projects of Bollinger + Grohmann Ingenieure:

European Central Bank and the Frankfurt Großmarkthalle (2014), Frankfurt, Coop Himmelb(l)au

Louvre Lens (2012), France, SANAA Architects

King Fahad National Library (2007 to 2014), Riyadh, Saudi Arabia, Gerber Architekten

Rolex Learning Center (2010), École Polytechnique Fédérale de Lausanne (EPFL), Switzerland, SANAA Architects

Vienna DC Tower (2014), Donau City Vienna, Dominique Perrault Architecture

COMPUTER-AIDED DESIGN OF SUPPORT STRUCTURES

This subject area is concerned with computer-based design methods that have continually influenced Bollinger + Grohmann's work in the past 15 years. At the same time, the firm has actively furthered the development of such tools and processes in practice and in research. This process of the computer-aided design of support structures can be traced using selected projects as an example.

The documentation focuses on the initial attempts at form-finding and form development, parametric form generation, optimisation of support structures, digital production, programming internal software through to coordinated 3D planning.

Selection of the projects presented:

BMW Welt Munich / Coop Himmelb(l)au

PGE Arena, Danzig / RKW Rhode, Kellerman, Wawrowsky

Sphere in Frankfurt / Mario Bellini

Hungerburgbahn, Innsbruck / Zaha Hadid Architects

White Noise, Salzburg / SOMA-Architecture

Deichman Library, Oslo / Lund Hagem / Atelier Oslo

ESO Supernova in Garching near Munich, Architekten Bernhard + Partner

THE SUPPORTING PROGRAMME

29.10.2015 6.30 pm

Keynote lecture on the exhibition opening

Klaus Bollinger and Manfred Grohmann

Bollinger + Grohmann Ingenieure

“Fascination for construction - just a simple engineering love affair“

05.11.2015 6.30 pm lecture

Daniel Pfanner

Bollinger + Grohmann Ingenieure

“Not an end in itself: Innovations in the building shell“

12.11.2015 6.30 pm lecture

Christoph Gengnagel

Bollinger + Grohmann Ingenieure

“Experimental structural design“

19.11.2015 6.30 pm lecture

Klaas de Rycke

Bollinger + Grohmann Ingenieure

“Methodology of design“

LOCATION AND OPENING TIMES

Oskar von Miller Forum, Oskar-von-Miller-Ring 25, 80333 Munich

www.oskarvonmillerforum.de

30 October to 22 November 2015, Tuesday to Sunday 12:00 midday to 6 pm

Admission free

BOLLINGER + GROHMANN INGENIEURE

A passion for high-quality architecture and innovative structures has been the motivation for the structural engineers Klaus Bollinger and Manfred Grohmann since the foundation of their office in 1983. As responsible engineers, their prime focus is the strengthening and enhancement of each individual design. They and their team thus work with many international architectural offices, such as CoopHimmelb(l)au, SANAA, Dominique Perrault, Renzo Piano, BIG, LAVA and Zaha Hadid.

OSKAR VON MILLER FORUM

The Oskar von Miller Forum is an educational initiative of the Bavarian construction industry. As an international centre where people from diverse construction-related disciplines can meet and exchange ideas, the Oskar von Miller Forum contributes exciting ideas and inspiration through its programme to the education of a new generation of civil engineers, environmental engineers and architects at the Technische Universität München and construction technicians at the Städtische Fachschule für Bautechnik. In addition, lectures by internationally renowned civil engineers and architects as well as exhibitions on construction-related topics are held at the Oskar von Miller Forum.