

Final Report

Project AKTION 66p19 - Emerging Digital Techniques in Architectural Design

The project “Emerging Digital Techniques in Architectural Design” supported by AKTION has been successfully realized according to the project proposal without any general changes or problems in April 2013. 10 students and 2 lecturers from the University of Applied Arts Vienna, Institute of Architecture has arrived to the Brno and there, with 10 students and 2 lecturers from the Faculty of Architecture BUT, realized one week intensive workshop on digital techniques and fabrication. During the workshop structure from plywood has been designed, fabricated and build.

In the first part of the week students has been introduced to basics of Grasshopper software platform, than divided in to the four design groups. Based on models and drawings each group devised a design proposal, of which one was chosen by collective vote. Consequently the chosen design has been tuned, fabricated and build in the second part of the week. The Faculty of architecture BUT provided all the necessary rooms and available stuff and equipment including driver, van, CNC mill for testing models, presentational technique etc. Fabrication of the building tiles has partially happened in cooperation with the Mendel University in Brno, which kindly provided additional machinery that was necessary for the fabrication of the proposed design.

The structure has been exhibited and freely accessible for the public for four weeks in the courtyard of The House of the Lords of Kunštát in Brno.

Jan Kristek has also presented the project at the lecture series “2+2” organized by the Department of Architecture at the Faculty of Civil Engineering in Brno.

Besides the new skills in software and contemporary digital design techniques students have gained “real world” project experience with very unconventional structure. They had to deal with problems coming during the building part of the workshop – problems stemming out of material, out of unexpected behaviour of the structure, out of chosen system of assembly and so on. All the complications have solved eventually and therefore beneficiary to the students and lecturers as well. The overall positive ambiance of the workshop is promising for a future cooperation.

The project was partially reassembled and the process of assembly was exhibited as photos and videos, in September 2013 at the Mini Gallery at the Faculty of Architecture BUT





Design process at the Faculty of Architecture, Brno University of Technology



Process of fabrication at the Mendel University in Brno



Assembly of the structure at the courtyard of The House of the Lords of Kunštát in Brno



Exhibition of the workshop at the Mini Gallery at the Faculty of Architecture BUT

List of participants

Institute of Architecture, University of Applied Arts Vienna

Lecturers: Mag.arch. Bence Pap, Univ.Ass.
Sen.Sc. Mag.arch. MArch (Harvard) Andrei Gheorghe

Students: Dmitry Seregin (Matr.Nr.: 1274148)
Melanie Kotz (Matr.Nr.: 9471403)
Eva Blšáková (Matr.Nr.: 1274186)
Kriszti Nagy (Matr.Nr.: 0774034)
Hedye Darman (Matr.Nr.: 828227)
Rodrigo Quiñones' (Matr.Nr.: 1274186)
Lu Jia Xing (Matr.Nr.: 1274197)
Ilias Klis (Matr.Nr.: 11744088)
Nina Kazem Soltani (Matr.Nr.: 1174159)
Bart Chompff (Matr.Nr.: 1274044)

Faculty of Architecture, Brno University of Technology

Lecturers: Ing. arch. Jan Kratochvíl
Ing. arch. MArch Jan Kristek

Students: Veronika Smejkalová
Norbert Obršál
Lukáš Kvaššay
Klára Vejvodová
Roman Ženatý
Tereza Kvapilová
Petra Hůlová
Eva Staffová
Katarína Vankušová
Jaroslav Matoušek