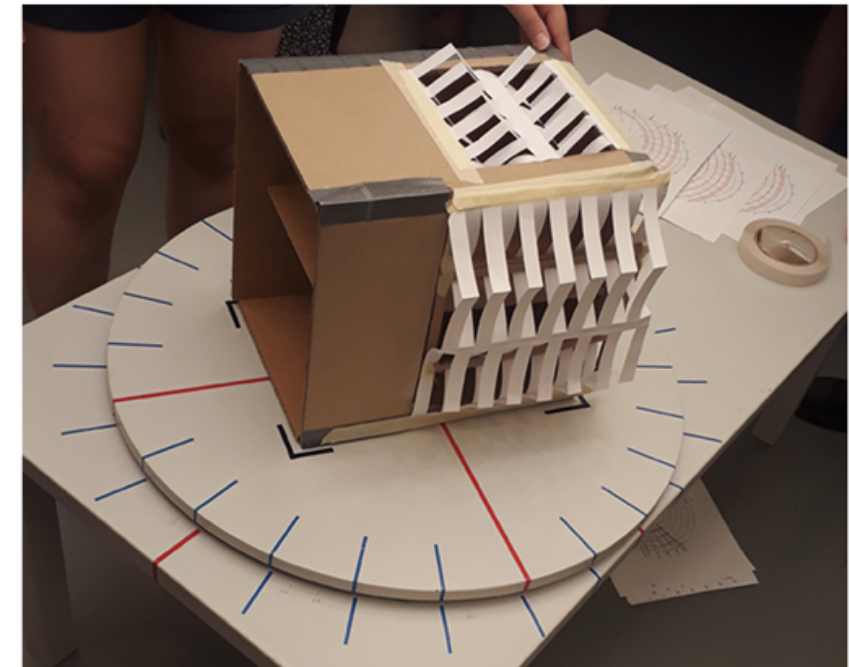
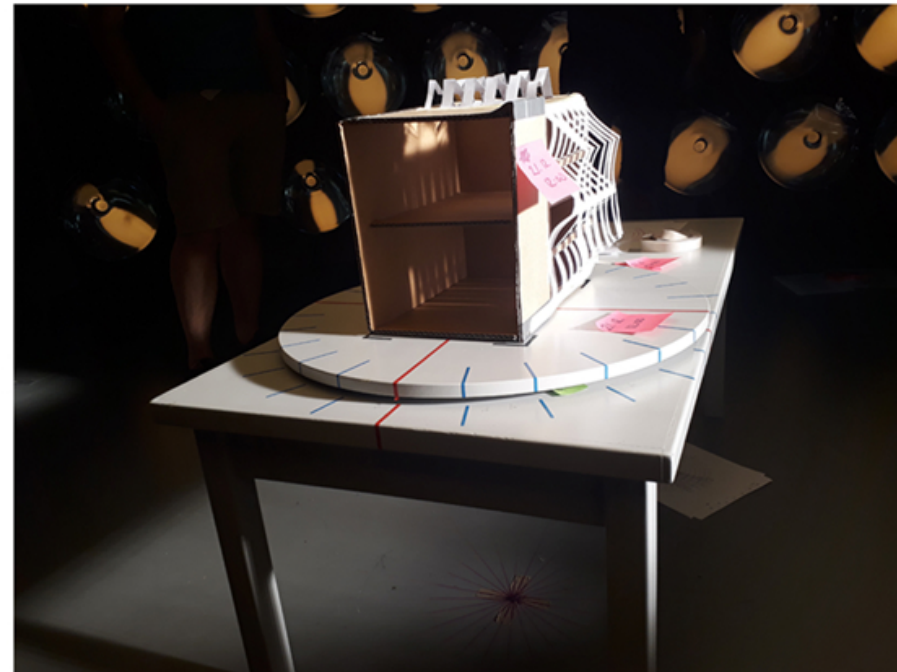




Summer university, 2018S

Green.Building.Solutions. The Simulation of natural light and solar radiation



The correct and attentive use of light has a great importance in the concept phase of the designing process. In order to create the best daylight quality in buildings we need to know how to correctly position the openings in buildings, to select right shading elements and suitable illuminants that efficiently supplement daylight.

During the summer university Green.Buildings.Solutions. we did an excursion to the Danube University Krems where Dipl.-Ing. Gregor Radinger from the department of Buildings and Environment helped us to experience the Simulation of natural light and solar radiation to a model that we designed and built specifically for this experience. This lighting laboratory in the Danube University Krems has basically an artificial sky which is a combination of a sky dome equipped with 230 high-voltage halogen lamps and a movable artificial sun - consisting of a 1000W high-voltage halogen lamp with parabolic reflector. By using sun position diagrams, the construction enables targeted simulations of daylight situations at different times of the year and day; at any point on the earth, under controlled conditions.

www.donau-uni.ac.at/dbu/lichtlabor

