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GEOMETRY OF CONTEMPORARY ENGINEER ARCHITECT

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Within the subject of Descriptive Geometry at the Faculty of Architecture the teaching staff quite often face a problem of a new approach to space - its shaping and transformation. However, there is one thing they are sure of: sticking with traditional methods of object creation, based on projections it is necessary to focus stronger on modelling. There is an issue of subject responsibility for development of skills in using traditional tools for drawing in 2D – projections and 3D – axonometry, perspective as well as preparing models. At the conceptual level of designing, an architect engineer will not give up a piece of paper or a pencil, and abilities to make a model of the object is especially valuable in designing offices and is a favourable way of presenting designs to investors.

Carrying classes gradually – from idea to making a 2-D drawing to presenting a design in a 3-D form leads to better understanding of the relations of mutual location of object elements. It makes one aware of advantages and disadvantages of descriptive and space method of mapping an object.

Education in any domain always aims at developing abilities of rational problem solving, using knowledge on laws and rules governing a given discipline. While teaching descriptive geometry emphasis should be put on knowledge and skills necessary in the future engineering activity, as well as development of creative inventiveness of a future graduate.

The presentation will discuss issues connected with a designing task of construction roofs designed on the basis of Catalan structures.
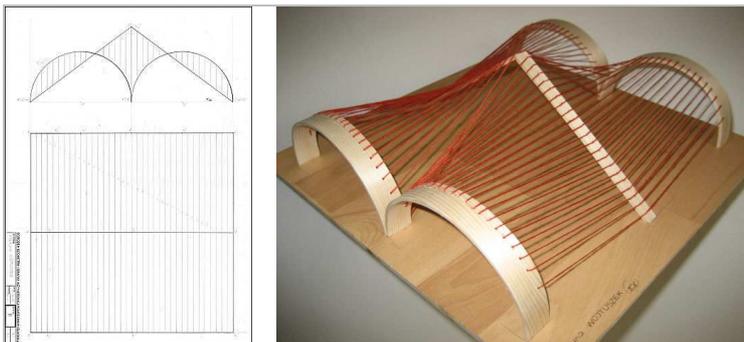
Fig. 1, 2. Two projection and model of Catalan surface made by first year students of Faculty of Architecture
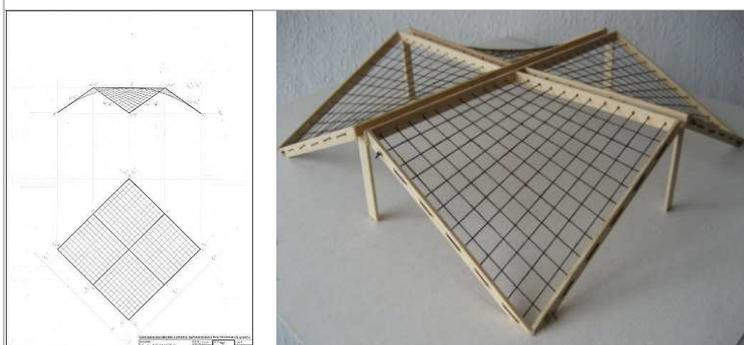
Fig. 3, 4. Two projection and model of Catalan surface made by first year students of Faculty of Architecture

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