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CAAD Education at Sint-Lucas Brussels-Gent

Stefaan Van Acker, Johan Verbeke, Johan Verleye

Higher Institute for Architecture
Sint-LucasPaleizenstraat 65-67B-1210
Brussels, Belgium

Main Objective

The CAAD group at our Institute decided to use computer and CAAD-software in a creative way. For this reason we choose CAAD-software which is open, flexible and does not impose strict limitations on design exploration. Our primary goal is to investigate the use of the computer in the very first stages of the design process (upstream). Hence we are interested in ways to make CAAD-software more 'architect-minded' (i.e. the operational structure should be as close as possible to the thinking of the architect and the logic of the creative design process) such that it stimulates the creativity of the architect.
In order to reach these goals, we try to stimulate the reflection of the students about these items.

Education

In our curriculum, starting in the second year, we use software which was especially developped for architects and which is full 3D (from the first lesson on) helping us to develop the spacial understanding of the students. In addition we stress the importance of a visual approach and the communication with the computer on the basis of concrete forms and not in an abstract way. Hence we do not teach the students ways to draw projects, but try to teach them how to use software by modelling, starting with easy objects and very quickly evolving to houses and finally to more complex buildings.

Design Studio

During the academic year 93-94 computers were uses in a fourth year architecture design studio in the context of an urban design studio. Students were urged to introduce design 'problems' and design ideas in a CAAD environment. Issues of importance were categorisation (structuring of ideas), visualisation and abstraction. The computer was intensively used during the phases of analysis, design exploration and external communication.

Research

The group is starting up research projects on the following three themes: a) the interaction and manipulation of objects in which we try to investigate and create tools which are easy to use while designing, b) adding knowledge and heuristics to a CAAD-system and c) the definition and use of entities other than volumes and the objects used today. It is always our main goal to stimulate creativity and to make the use of computers more suitable for the design process (a more extended description is available on simple demand).