Education, Design and Practice – Understanding skills in a Complex World

• Paper / Proposal Title:
The value of using design competition calls in a “design studio” course

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• Abstract (300 words):
The teaching of design in universities has become increasingly focused on environmental sustainability and enabling students to develop collaborative and productive relationships with practitioners.

This paper is based on the assumption that design teaching in modern cities is best positioned as a joint effort between engineers and architects. It draws on the experience of the Polytechnic School of Brussels and aims to describe the innovative teaching model we developed in the form of a “design studio” course. The unique feature of this course is its use of real design competition calls as the basis for student projects and learning. The “design studio” takes place in the 3rd year of the Bachelors level course in Architectural and Civil Engineering and the teaching framework has 4 main objectives:

To enable students to:
1. Develop a better understanding of the public market,
2. Effectively integrate the views of practitioner experts into their work,
3. Collaborate productively across a project team,
4. Respect the three pillars of sustainable development.

Eighty-five students from the last four years of the course completed a course feedback survey and we conducted semi-structured interviews with ten students from the current year. The surveys and interviews focused on: the impact of the teaching methodology on student learning at different stages of the process; the learning outcomes resulting from the use of a real design call; and the nature of the relationships developed with practitioners.

We concluded that taking architectural design competitions as a start point for the teaching of design studio better equip students to approach professional life. Moreover, embedding the course into a real design competition encourages stronger collaboration with student and teacher. These findings contribute to the debate about the multidisciplinary nature of the architectural design process in a complex and changing built environment.

• Author(s) Biography (200 words each):

Samia Ben Rajeb is architect (graduated in 2007 from ENSA Tunis and ENSA Paris-la-Villette) and Professor in Ecole Polytechnique of Bruxelles - ULB (since 2016). She first worked several years at famous AIA office Studio in Paris (architects and engineers). She obtained a PhD in Architecture in 2012 in Paris and then she got an international post-doc grant at University of Liège to lead research programs on digital environments for collaborative design and to manage several courses, whose "Collaborative design process analysis". Currently, she is developing her research on the participative approaches and the co-design in BATir Department in ULB by COLLAeB research unit, for Collaborative Design and Digital mediations in Architectural Engineering.

Séverine Hermand is a PhD candidate and teaching assistant at the BATir service, AIA (Architecture and Architectural engineering) department of the Brussels School of Engineering, and the Université Libre de Bruxelles (ULB) since 2012. At BATir, she teaches at the “design studio” at Masters and Bachelor level and the “Bioclimatic Design” course at Bachelor level. Séverine Hermand is also involved in different scientific research projects. Her research focuses on energy performance and bioclimatic analysis of the urban form. Séverine holds a master degree in Architecture (Ecole Nationale Supérieure d’Architecture de Montpellier, France, 2009) and a second master degree in Urbanism and Regional Planning (Université Libre de Bruxelles, Belgium, 2010).