A Study on the Design Possibilities Enabled by Rope-Less, Non-Vertical Elevators Project

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LONDON – The CTBUH team flew to London with a group of students from the Iuav University of Venice for two days of meeting and training with vertical transportation experts and architects involved in research “A Study in the Design Possibilities Enabled by Rope-Less, Non-Vertical Elevators.”

The meeting was kindly hosted at the Architectural Association. The students had the opportunity to follow short lessons held by Tony Sharp and Robin Cheesright (D2E International VT Consultants Ltd), who explained how the building type of the high building has always been deeply influenced by the vertical transport system. A second brief lesson was given by Richard Peters (Peters Research Ltd) who explained to students how to use Elevate™, one of the most popular simulation software for the design of transport systems inside buildings and providing useful information for the sizing of their facilities. Finally, Paolo Zilli and Pierandrea Angius (Zaha Hadid Architects) presented in general the projects of the study and the works they are conducting with the study class of the Architectural Association. After the short interventions of the experts the students briefly presented their projects and discussed some aspects with the experts.

The students are developing projects aimed at experimenting with the application of rope-less and non-vertical transport systems in the design definition of tall buildings. During the months prior to the meeting, the students involved defined the project areas, the functional programs of their buildings and developed the first project schemes arriving in London with advanced models on which to reason with the experts.

The discussion mainly focused on the ways in which the students decided to apply and use the system. The experts helped the students solving some issues they met within the application and suggesting them how to improve the overall management and arrangement of the system. Moreover, the projects have been revised also from a designing point of view, in order to create the best possible balance between the architecture and building transportation, indeed to reach the most efficient and effective solution.

Finally, also the experts found this initiative interesting and stimulating, thanks to the possibility to work on a design project with new goals. Somehow simulate the application of the rope-less and non-vertical elevators to a designing project is helpful in the identification of the main potentialities of the systems but also – and most of all – to detect the issues and the new challenges that the designers and the people involved in the definition of a tall building project will have to face in the near future.
Dario Trabuco (research manager of the CTBUH research office) explaining to the experts the objective of the student works and the expectation from the meeting.

The presentation of the student projects started a proactive discussion between them and the experts involved.