CTBUH Research Division in Japan: Meetings with Designers and Façade Consultants

April 16 – 23, 2018

TOKYO – CTBUH Research Division had meetings with architectural and engineering design companies and façade consultants during its trip in Japan, in order to meet experts in the façade field that are contributing for the research project on Cyclone Glazing and Façade Resilience for the Asia-Pacific Region.

First, they discussed about the role of the professional figures of the designer and of the façade consultant operating in the Japanese market. Angela Mejorin consulted the various parties aiming to confirm the findings of the research activities led during the first stage of the research. The study conducted by the CTBUH and presented in the II Issue of the 2018 CTBUH Journal was shared with the meeting participants. This was the occasion for entering into the discussion of the best practices when it comes for strong winds-resistant curtain walls in the contemporary construction in Japan.

Hiroaki Kunitsu, Senior Structural Engineer at NIKKEN SEKKEI LTD, kindly organized the meeting CTBUH asked for with him and his colleagues from the famous Japanese firm. They hosted CTBUH and Shuji Miyamoto from Trosifol, the research project sponsor representative, at their Headquarters in Tokyo. Hiroaki Kunitsu gave a presentation and showed several projects that Nikken Sekkei designed in Japan and Tetsuo Tsuchiya, Chief Architect, gave a presentation on one of their projects, the Tokyo Sky Tree Tower. He presented façade conception of the building, which is the tallest tower in Tokyo, the design characteristics and its unique safety performances and maintenance procedures. Nobuyuki Mori, Senior Expert of the Engineering Department, explained the best practices for building design in strong wind location in Japan. Finally, Kazuhiko Yoshida, Architect of the Façade Engineering Section, and Kohei Shintani, Structural Engineer, discussed about their safety precautions for the glazed building envelopes of their projects.

Shuji Miyamoto introduced Angela Mejorin to the entire Façade Engineering Department of ARUP Japan. Susumu Matsumobu, the Façade Unit Leader of the Tokyo Office, presented the role of the façade consultants in the Japanese new developments and their principal clients' requests. Furthermore, he explain the minimum design parameters and performances for the projects they are involved in and the additional performances they often provide to the building envelopes they design. This meeting aimed also for a discussion on the different requirements and test procedures in the façade design for the various Asia-Pacific jurisdictions focus of the research (Australia, Hong Kong, and the Philippines). Sasha Tsai, Façade Engineer, briefly shared, compared and contrasted her experience in Japan and Hong Kong.

Drawn to Architecture exposition at the NIKKEN SEKKEI LTD Hedquarters in Tokyo (Monday 9th April 2018 – Thursday 31st May 2018).
ARUP Façade Unit met CTBUH at its Tokyo Office. From right to left: Susumu Matsunobu, Façade Unit Leader; Wataru Kashima, Façade Engineer; Sasha Tsai, Façade Engineer; Angela Mejorin, CTBUH Research Assistant; Hiroshi Amano, Façade Engineer; Katsuya Sakurai, Façade Engineer; Yuki Uehara, Façade Engineer.

The research trip to Japan was the occasion for the Research Division to have a debate with the Mitsubishi Jisho Sekkei Inc at the Tokyo Head Office about their standard procedure for the tall building façade design. In Japan, the official definition of a building higher than 60 meters. Emi Honda, Chief Architect, and Yusuke Hotta, Chief Engineer, illustrated how they define the local pressures on the building envelope, in order to provide the necessary information to the façade suppliers and let them delineate the curtain wall typologies. The Mitsubishi Jisho Sekkei Inc representative explained their role and responsibilities with the client for the curtain wall design, product approval process and installation procedure. Angela Mejorin asked some questions about some of their latest projects, such as The Park House Harumi Towers Tiaro Residence.

CTBUH is working at the technical publication entitled ‘Strong Winds- and Cyclone-Resistant Façades: the Best Practices’ and aims to collect projects for the ‘Building Case Study’ section from the three above mentioned companies.

Tokyo. On the right the entrance of the Toranomon Hills. In the background the Atago Green Hills Forest Tower on the right and the Atago Green Hills Mori Tower on the left.
Tokyo. The Toranomon Hills building.