

CTBUH Journal

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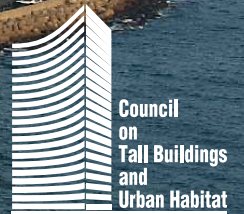
Haeundae I'Park, Busan

Country Report: South Korea

The Subtropical Residential Tower

Integrating Wind Turbines in Tall Buildings

A New Demolition Method for Tall Buildings



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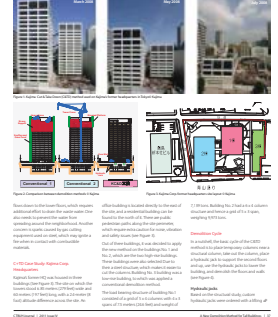
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A New Demolition Method for Tall Buildings Kajima Cut & Take Down Method



“Most of the world’s urban population growth is occurring in subtropical and tropical zones. Designs that oblige people to use air-conditioning for indoor thermal comfort exacerbate the use of fossil fuel energy and CO₂ emissions, and also impose significant long term costs on occupants as the costs of energy rises inexorably.”

Rosemary Kennedy & Shane Thompson, page 24

Talking Tall: The CTBUH Chairmanship

An interview with Professor Sang Dae Kim (current CTBUH Chairman) & Timothy Johnson (CTBUH Chairman-elect) by Jan Klerks, CTBUH Communications Manager/Journal Editor, on the eve of the chairmanship transition.

“In many ways, modern tall building design may be in just its rambunctious teenage years. It’s exciting, naive, and still has room to mature. The future is very bright as the world continues to grow, people continue to flock to cities for opportunity and a lifestyle which is rich in diversity and energy.”

Tim Johnson, NBBJ, CTBUH Chairman-elect

Assuming the Chairman’s position in a not-for-profit organization is always an honorable matter, and especially so when that organization is focused on high-rise building. Since Lynn Beedle laid the foundations for the Council on Tall Buildings and Urban Habitat in 1969, eleven outstanding chairmen have led the Council. This October, the Council welcomes its 12th, as the Board of Trustees inaugurates Timothy Johnson to succeed Professor Sang Dae Kim as chairman, who has now successfully completed his two-year term. Professor Kim will pass the Chairman’s gavel during the 2011 CTBUH Conference in Seoul. In this edition of Talking Tall, we talk with the outgoing and incoming chairman to learn about their experiences and ambitions. Given that both are well-established professionals in the tall building world, we also take the opportunity to reflect on the current and future development of tall buildings in general.

Professor Sang Dae Kim (see Figure 1) assumed the position of Chairman of the Council during the CTBUH Chicago Conference in October 2009, when the gavel was passed to him from then-chairman David Scott. Among his many achievements, Professor Kim significantly expanded the CTBUH brand to many parts of Asia during his tenure, while also initiating projects aimed at encouraging a stronger involvement from tall building research professionals.



Figure 1. Professor Kim speaking at the CTBUH 8th Awards Dinner in Chicago in 2009

Timothy Johnson (see Figure 2) who will assume the position of the CTBUH Chairman in October 2011, was appointed as a member of the Board of Trustees in 2009. Before that, Mr. Johnson was chair of the CTBUH Awards Committee 2006–2008, a member of the Advisory Group and Editorial Board of the CTBUH Journal.

What project established during your term are you most proud of?

Kim: I think that in recent years the CTBUH has become more of an international organization. Since I assumed the position of Chairman, the number of country representatives has increased from 21 to 31. In many Asian countries, and especially in China and Japan, the Council was a relatively unknown organization. Now, our new country representatives are working very hard to successfully promote the Council in their respective countries. One of the most prominent activities I was able to accomplish in this light is the publication of a translated CTBUH Journal in both Chinese and Korean. In South Korea every issue of the Journal is translated and distributed among professionals in the field of architecture.

I am also proud to have overseen the creation of three new Working Groups, which will be

studying the topics of Structural Outriggers, Foundations, and Column Shortening. All three have already worked very hard towards publishing a CTBUH Design Guide, and are expected to present their drafts in the near future. I have also been able to set up the organizational structure for a new research journal, of which the first issue will be published in 2012.

I have also accomplished my goal to help bring in more organizational members. Not only does this benefit the financial stability of the Council, it also benefits through getting more members involved in our activities.

Are there any ambitions which you initiated which need more time to establish themselves?

Kim: The CTBUH was founded by Lynn S. Beedle, who was a devoted professor himself. However, involvement from academia in the Council is currently modest compared to the number of professionals involved. As an academic myself, I hope for the Council to become a gathering place where professionals and researchers meet and exchange ideas, knowledge and experiences. I also hope that the CTBUH Congresses, which are organized every three to five years, will offer great opportunities to present pure research papers.

What established activities of the Council are you most proud of?

Johnson: My first significant undertaking with the Council was to define and lead its annual awards program. Although it existed prior to my role, it wasn't well defined or attracting the kind of projects I would say lead the world of tall building design. Our first mission was to define the parameters in order to attract the top projects from around the world. Then we needed to promote it. The Council staff did a great job in helping to support this. I believe the design fundamentals and quality of the award submissions and ultimately the winners have risen the bar and profile of the Council as a leading building awards program. This has been sustained through recent award chairs as well, which to me signifies that it now has a strong and sustainable foundation.

As the first architect to lead the Council, what is it you are looking for in a tall building?

Johnson: When it comes to the characteristics that I applaud in tall buildings, first and foremost I believe that tall buildings need to integrate well with their urban context. Tall buildings have a major influence on the cities in which they are built, and they should meet the ground plane as significantly as they meet the sky plane. Secondly, as a sustainable strategy, tall buildings need to do everything they can to minimize their effects on the environment. The industry has a lot of room to grow in this regard and some of the most exciting buildings in the future will make great advances in sustainability. And finally, tall buildings need to have a relationship with their location. Every city is unique in its culture, climate, and development conditions and I think it is essential that the building design reflects this. This will then create unique buildings around the world that make their special aspects legible.

While on tall buildings, Professor Kim has already observed in the opening words of this Journal that tall buildings have become taller and more numerous during his tenure. What is your take on the development to build taller and taller?

Kim: I am often asked how high a tall building can go. Now we have a proposed tower that is going to be at least one kilometer tall, the question will be if we can go even taller? This question is a bit tricky to answer. Some people say there is no limit in terms of engineering but one must also realize that it is not easy to predict what difficulties we would be facing when they reach that height. But there are other issues with supertall buildings as well. I would like to offer the example of the Lotte Jamsil Super Tower in Seoul (556 meters/1,823 feet/123 floors). This project was actually initiated 17 years ago, but the design process did not start until recently because it had not been approved by the South Korean government. Rules and regulations posed excessive restrictions. But also other authorities, such as the air force, did not look favorable toward the project either. I realized that the Council could play a part in this, not so much by promoting tall buildings, but more so in helping governments to make decisions regarding tall buildings by providing facts and rational arguments, as these don't always seem to be present in the discussion.

Johnson: The taller you go, the more we all need to work together as a team. Clients, architects, engineers, contractors, and special consultants such as wind tunnel experts, vertical transportation manufacturers, enclosure consultants, etc. need to work together with a common goal. It is not by chance that Lynn Beedle saw the importance of this many years ago when the Council was formed, and I think he would be quite proud to see collaboration as a key to the industry moving forward. The Council embraces this. It is a major strategic advantage of the organization.

Being tall building experts, you both have extensive hands-on experience. What do you think are other timely and interesting topics when it comes to tall buildings today?

Johnson: When you think about it, the tall building has not really changed dramatically in the past 50 years. We are starting to see signs of change for all sorts of reasons. As an example, the multi-mixed-use project is becoming quite common today and I think

that will continue to diversify which will lead to even more interesting tall buildings and solutions offering urban living, working and playing. Although we are somewhere in the midst of the largest construction boom in the history of the world, there are still 3 billion people on the way in the next 40 years. How will we address this fact as we consider the condition of cities and building in general? I think that tall buildings which are successfully integrated into the urban habitat will play a major role in this question.

Kim: My main interests in tall buildings are mostly about design and construction, especially on how to design a tall building both beautifully and safely in terms of structure. Now I see that actual users of the building are as important as its design. As much as tall buildings need to be beautiful, they also need residents in order to realize that beauty. I have a better understanding now of the usability aspects of tall buildings.

How will you stay involved with the Council?

Kim: My two-year term has passed fast. Now that I am stepping down, I have finally got used to it all! But in the mean time I was able to visit many countries and meet with local country representatives. With the comprehensive views and experiences gained during my time as chairman, I am able to continue to assist CTBUH leaders through my new position of Vice-Chair. We have built up a great reputation as an organization. The ➤



Figure 2. Tim Johnson at the CTBUH 7th Awards Dinner in Chicago in 2008