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RARE AIR: ORIGINS OF THE COUNCIL ON TALL BUILDINGS AND URBAN HABITAT

For a brief few days, the nation's greatest debate did not center on affordable health care, same-sex marriage or the questionable talent of Miley Cyrus. It centered instead on height, as in, which state now lays claim to the country's tallest building. The battle pitted New York City with its nearly-completed **Freedom Tower** and Chicago's **Willis Tower**, known by most as the Sears Tower.

The Freedom Tower took the crown this month after the Council determined that its antenna was technically a part of the entire structure, thus capping it at a patriotic 1,776 feet. This makes it 47 feet taller than the Willis Tower. (And by comparison 322 feet taller than the Empire State Building. The world's tallest building is still the Burj Khalifa in Dubai at 2,722 feet.)

But for many, the most surprising aspect of the debate was that there existed an institution whose job it was to decide these things at all. That institution, the **Council on Tall Buildings and Urban Habitat**, began at Lehigh University.

Founded in 1969, the CTBUH had a mission to spread information and share research on tall buildings and sustainable urban environments, maximizing the international interaction of the people who created them. A not-for-profit supported by architects, engineers and construction professionals, they quickly became the world's leading body on skyscrapers.

The Council was founded by Lehigh's own **Lynn S. Beedle**, who joined the university as an instructor in 1947 and five years later received his doctorate in structural engineering. His groundbreaking studies on the properties of steel structures and his creation of the Council (born during a meeting of the International Association for Bridge and Structural Engineers in which Beedle noticed a surge in tall building research still lacked international coordination) helped Lehigh become a center for civil and structural engineering research. In 2003, it moved to the Illinois Institute of Technology in Chicago, proving the recent decision was clearly non-partisan.

The Council came about at the right time. Before 1950, there were very few tall buildings but by the 70s everything was pointing skyward. The trend stemmed from growing populations in cities, the need for greater economy in construction, what the Council called a "frequent neglect of human factors at the expense of livability and the quality of life," and the need for new research required in the field.

In the past 40 years, the CTBUH has been the recognized arbiter on tall building height and the body that determines the title of "The World's Tallest Building." The organization maintains three definitions for measuring height along with definitions for function and materials. The official "height" Committee was formed in 1993, but the function of determining height, data and "tallest" titles pre-dates this, with the creation of the first official "CTBUH 100 Tallest Buildings in the World" list first appearing in the 80's and now published in numerous reference books and periodicals each year: **The Skyscraper Center**.

Despite no longer housing the Council, Beedle's legacy continued at Lehigh with the creation of the **Fazlur R. Khan Endowed Chair of Structural Engineering and Architecture**. Shortly after the death of his long-time friend and colleague, **Dr. Fazlur Khan** in 1982, Beedle proposed endowing a chair in civil engineering and architecture to honor Khan's achievements. The endowment became a reality in 2006 when **Dr. Dan Frangopol** joined Lehigh as the first holder of the Fazlur R. Khan Endowed Chair of Structural Engineering and Architecture. In 2007 Frangopol initiated the **Fazlur R. Khan Distinguished Lecture Series**.

Co-sponsored by the Departments of Civil & Environmental Engineering and Art, Architecture & Design, the lecture series has been host to 22 of the top structural engineers and architects since its inception. The lecture series

honors Khan, who received an honorary doctorate at Lehigh and was one of the foremost structural engineers of the 20th century, who helped design the 100-story John Hancock Center in Chicago and the Willis Tower. Khan, a Fulbright Scholar and lover of interdisciplinary work, helped the Council elegantly define what would constitute a tall building. “It is a building whose height creates different conditions than those that exist in common buildings of a certain region or period,” he said.

The series started with Mark Sarkisian, a Lehigh graduate and a partner in Skidmore, Owings, and Merrill. This year, the lecture series features James R. Harris, Jon R. Magnusson, and Charles H. Thornton as the distinguished speakers. To attend a Khan Lecture is to share an audience with some of the world’s preeminent civil and structural engineers and architects. For a complete list of speakers, both past and upcoming in the spring semester, visit <http://www.lehigh.edu/frkseries>.

For those who may want to question the Council’s decisions, or definitions, there is little recourse. The Council is the arbiter and they’ve been through media firestorms before. Beedle wrote that, It was the successful challenge by Petronas Towers [Malaysia] for 'the world’s tallest building' title that opened a floodgate of media. In 1996, the Council had the unenviable task of transferring the title of world's tallest building from America’s Sears Tower to Malaysia's twin towers—again over an antennae. Beedle received calls and letters, even from children (mostly in Chicago) asking for a recount. Ever a professor, he personally visited one third-grade class to face his accusers. But Petronas still won.

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