Tall Buildings in Numbers

Vanity Height: the Empty Space in Today’s Tallest

We noticed in Journal 2013 Issue I’s case study on Kingdom Tower, Jeddah, that a fair amount of the top of the building seemed to be an unoccupied spire. This prompted us to explore the notion of “vanity height” in supertall buildings, i.e., the distance between a skyscraper’s highest occupiable floor and its architectural top, as determined by CTBUH Height Criteria.²

Note:
¹Historically there have been 74 completed supertalls (300+ m) in the world, including the now-demolished One and Two World Trade Center in New York.
²For more information on the CTBUH Height Criteria, visit http://criteria.ctbuh.org

World’s Ten Tallest Vanity Heights (as of July 2013 data)
Below are the ten tallest “Vanity Heights” in today’s completed supertalls.

Without Vanity Height, 44 (61%) of the world’s 72 supertalls¹ would measure less than 300 meters, losing their supertall status. The tallest of these is Guangzhou’s 390-meter CITIC Plaza.

According to current CTBUH Height Criteria regarding telecommunications towers, a 50% vanity height would deem any structure a non-building!

At 244 meters, the Burj Khalifa’s Vanity Height would be an impressive stand-alone skyscraper. If built in Europe, it would become the continent’s 11th-tallest building.

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Burj Al Arab
With a vanity height of nearly 124 meters within its architectural height of 321 meters, the Burj Al Arab has the highest non-occupiable-to-occupiable height ratio among completed supertalls. 39% of its height is non-occupiable.

Without Vanity Height, the Burj Khalifa’s 828-meter height would be 585 meters, losing its supertall status. It would become the 11th-tallest building in the world, not the 11th-tallest supertall building.
History of Vanity Height
The graph below charts Vanity Height as a percentage of overall architectural height for some of the world’s 74 completed supertalls.1

Vanity Height in Detail
The graphs below examine the average Vanity Height of completed supertalls by country, date of completion, and architectural height.

With no spire, the Ukraina Hotel in Moscow, Russia (206 m, b. 1955) has 42% Vanity Height – the “vainest” building overall in the CTBUH database.

New York City contains two of the tallest 10 Vanity Heights – and is set to gain a third with the completion of One World Trade Center in 2014.

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