Trends, Drivers and Challenges in Tall Buildings and Urban Habitat

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Summary

This paper outlines the major influences on tall building design in the early stages of the 21st Century. At this unprecedented time in terms of the scale and number of tall buildings being built globally, the paper charts some of the recent trends in tall buildings, and suggests some of the drivers. It also looks to the growing challenges in the future and, through design-research case studies undertaken by the author at the Universities of Nottingham, UK and the Illinois Institute of Technology, Chicago, suggests design responses to face some of these challenges.

Keywords: Tall Buildings, Design, Trends, Challenges, Sustainability

1. Tall Buildings Trends

We are certainly at an unprecedented time in terms of the development of the high rise typology. Though specific periods in the past 120 years have seen frenzied activity in terms of building tall (for example, late 19th Century Chicago, Art Deco New York, post-second world war western urban reconstruction and the Asian economic boom of the 1980's/90's), most previous periods have been concentrated both geographically and in timescale. What sets the tall building construction boom of the last decade or so apart is the geographical spread and the number and height of tall buildings being built. We are now seeing tall buildings being conceived, financed and built in virtually all corners of the globe, and cities with previously no connection to tall buildings are becoming serious 'hot spots' for the high-rise typology. The following elaborates on some of the specific trends:

1.1 Trend 1: Unprecedented Tall Building Construction

As Table 1 shows, in 1980 there were 324 buildings over 150 metres / 500 feet in height in existence globally (Binder, 2008). In 1995 this number was 820. By the end of 2008, it is expected that this figure will number 2922, an increase of over 350% in just over 10 years. It is clear that the past decade has seen an unprecedented boom in tall building construction.

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