



2020 SKYSCRAPERS: CHALLENGE OR MISTAKE?

María C. PEREZ G.
Dr Architect
CEU San Pablo University
Madrid, SPAIN
cperez.eps@ceu.es



María C. Pérez, born 1973, Architecture PhD from Universidad Politécnica of Madrid. She works as Building Structures Consultant and as Structural Analysis Professor at CEU San Pablo University, Madrid. Her main area of research is related to highrises history.

Summary

Teams of Architects and Engineers are already working in the 2020 skyscrapers. 150 years after the Great Fire of Chicago the average height of the 20 tallest is expected to rise up to 600 meters. The debate is open: Do “Supertalls” help building research? Are they INNOVATIVE or do they just repeat checked solutions? Do we have reasons to build high? Is it a challenge or a mistake? To answer these questions this paper analyzes relevant topics which have to do with economic implications, the symbolism of height, structural developments, vertical transportation systems, safety, location, building systems, facades, recycling, and energy generation. Identifying key factors to consider in the XXIst century highrises design may help us avoid new Babel’s towers. Becoming a landmark as INNOVATIVE DESIGNED requires more than just “being tall”.

Keywords: high-rise, Skyscraper Index, vanity height, structure, safety, recycling, energy generation.

1. Introduction

Building high has always been in human’s mind. We can find examples at any time in every culture: the Babel Tower legend, the ancient Egyptian pyramids, the Indian pagodas, the Middle East Yemeni Towers, the Middle Ages Castle Towers, the Renaissance Period Italian Towers; and finally the skyscrapers born in Chicago at the end of the 19th century, almost 150 years ago.

Why building high has always been in human’s mind? Depending on the type of tower, we can find out three main different reasons: to praise God, to show the owner’s power to the world and to earn money. Although these reasons used to be independent, nowadays they are clearly interconnected; specially power and money.

Although the current financial crisis, the world continues working in building high; in 2020 the average height of the 20 tallest is expected to rise up to 600 meters. What are the 2020 skyscrapers projects purposes? Who are the owners? Where do they build high? Is the construction of these Megatalls worth it? Are they a challenge or a mistake?