



Frankfurt's Skyline from the River Main_Photo Robledo 2017

In einer sich immer stärker urbanisierenden Welt gewinnt das Leitbild der kompakten Stadt eine zunehmende Bedeutung zur Schaffung von gemischten, vielfältigen und integrierenden Stadtquartieren. Dabei kann der Baustein des Hochhauses eine wichtige Rolle spielen, positiv wie negativ. Die Masterarbeit untersucht, zunächst in einem Vergleich weltweiter Metropolen und anschließend an Hand von drei Fallstudien der Städte Frankfurt am Main, Da Nang und Monterrey, unterschiedliche Formen, Inhalte, Potentiale und Grenzen von Steuerungsmechanismen der Hochhausentwicklungsplanung. Dabei zeigt sich, dass es diesbezüglich kein universell anwendbares Regelwerk gibt, sondern nur eine Anpassung an den jeweiligen stadtstrukturellen, klimatischen, politischen und sozio-ökonomischen Kontext einen nachhaltigen Beitrag zu Stadtentwicklung leisten kann.

In a world, which is experiencing an unprecedented urban growth, the compact city model with denser housing typologies has become an alternative for creating mixed, intense and diverse urban environments, which contribute to the development of efficient urban systems. More than being just a matter of tallness or bulkiness, increasing residential densities and mixing of uses can directly contribute to improving the citizens' quality of living. For that matter, even if a tall office high-rise building might increase the job density, if it is not accompanied by the housing component, it cannot be said that is helping reduce the need for commuting. Instead, this building might respond to other aspects such as status, reputation or even real estate speculation.

From all of the different housing typologies, high-rise buildings have the potential to create a public debate around both the positive and negative impacts that they have on their surroundings. Unlike other typologies, high-rise buildings can produce some extra value. Whether it is economic value for the project investors, green value for its generation of energy or efficient use of resources, or urban value for the incorporation of public spaces, affordable housing units or the strengthening of the city's identity, it all depends on the perspective through which it is addressed. However, at the same time, if the construction of this type



Da Nang's Touristic Beachfront Developments_Photo Peterek 2016



Da Nang's View Over the Han River_Photo Sterr 2015



Monterrey's Skyline from the Loma Larga Hill_Photo Eleventy 2015

of buildings is left unregulated or it is not monitored properly, it is also possible to generate a series of urban problems including functional, contextual, environmental, economic, social and safety aspects.

In this regard, the objective of this research was to address the lack of comprehensive high-rise regulations in the existing planning systems, which commonly end up associating a series of negative urban impacts to the high-rise typology. For doing so, a qualitative applied exploratory and descriptive research was employed through four different data collection stages to answer two research questions. Firstly, to identify the existing high-rise regulations being implemented in the most representative cities around the world. These regulations were later integrated into three main categories, for developing, for incentivizing and for implementing and monitoring high-rise buildings. Secondly, to explore if there is a relationship between the implementation of high-rise regulations and the reduction in the negative urban impacts associated with high-rise buildings.

Once the existing regulations were identified, one of the first conclusions was that there are not universal high-rise regulations, which could be identically applied in all cities. Aspects such as the city's planning and government structures, climatic conditions, topo-

graphy and socioeconomic conditions, among others, have a direct impact on their regulations. Rather than being universal, high-rise regulations should be comprehensive. Furthermore, through the analysis and identification of high-rise-related gaps in the three case study cities of Da Nang, in Vietnam, Frankfurt am Main, in Germany, and Monterrey, in Mexico, it was possible to provide some policy recommendations. The former contributed to validating a relationship between the policy implementation and the urban impact reduction.

Evidently not only by existing, regulations will solve all the high-rise related problems, since there are aspects such as the real estate speculation, the lack of political will and corruption, which seem to go beyond the scope of regulations. At the end, more than being a matter of promoting one housing typology over the others, developing a sustainable growth strategy for a city is about improving both the existing and the future citizens' quality of living. The experiences of some reference cities around the world have proved that with proper infrastructure systems, adequate high-rise regulations or plans and the political will to enforce them, cities can set the bases for a better urban future. By doing this, cities will be able to find alternatives to grow in a more organized, efficient and humane way.