

Design Surveys on 21st Century Skyscrapers Abroad and Proposals on High-rise Environments and Urban Dwelling in Japan

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[SYNOPSIS]

Since the beginning of the 21st century, major areas of construction of skyscrapers have moved to Middle East and Asian cities from advanced countries such as the United States, but construction of skyscrapers is still prosperous also in advanced countries including Japan. This research, done under collaboration of three researchers who major respectively in architectural design, city planning and environmental engineering, aims to grasp the actual condition and the trend of the overseas example of "the 21st century type skyscrapers" and to acquire useful knowledge for considering high-rise environments and urban dwellings in Japan. Although now high-rise buildings are becoming a more important urban issue than before in respects of the contribution to urban space and environmental considerations, the academic research considering scientifically high-rise buildings from synthesized various points has been very scarce.

In this research, in order to grasp actual condition of "the 21st century type skyscrapers", the field surveys in Europe (London, Paris, Moscow), Middle East (Dubai, Doha, Abu Dhabi), and Asian cities (Beijing, Shanghai, Hong Kong, Shenzhen, Guangzhou, Singapore, Kuala Lumpur, Hanoi, Ho Chi Minh City, Taipei, Taizhong, Kaohsiung) were performed including a research preparation period. By these field surveys, the fundamental database about the actual condition of the 21st century type skyscrapers was able to be obtained. Furthermore, by analyzing this database, useful knowledge for considering high-rise environments and urban dwellings in Japan could be acquired.

The result of research was summarized in four pieces of master's theses and 14 pieces of papers presented at annual conventions of the Architectural Institute of Japan. After performing more field surveys, the result of research will be published in the form of a book in the near future.