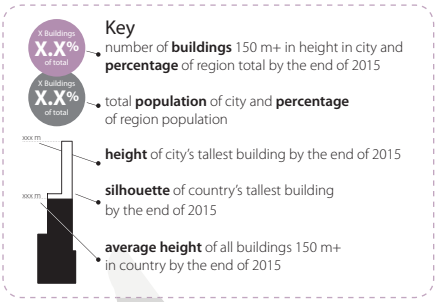
Japan: A History of Tall Innovations

Japan is one of the world's most densely populated nations, at an average of 339 people per square kilometer.[3] It is also one of the world's most active seismic zones. More than 140,000 people died in the 1923 Great Kantō earthquake, which leveled Tokyo. The Tōhoku earthquake and tsunami of 2011 was the world's costliest natural disaster to date, at $235 billion. The combination of these factors has driven sophisticated design and engineering innovations that responded to Japan's uniquely challenging conditions, including in the tall building field, which continue to this day. This survey examines a number of the most significant tall achievements in modern Japanese history.

Mapping Japan: Population and Skyscrapers

Map shows data on skyscrapers and population (see key for details).
Building outlines show the tallest building in each city projected for the end of 2015.



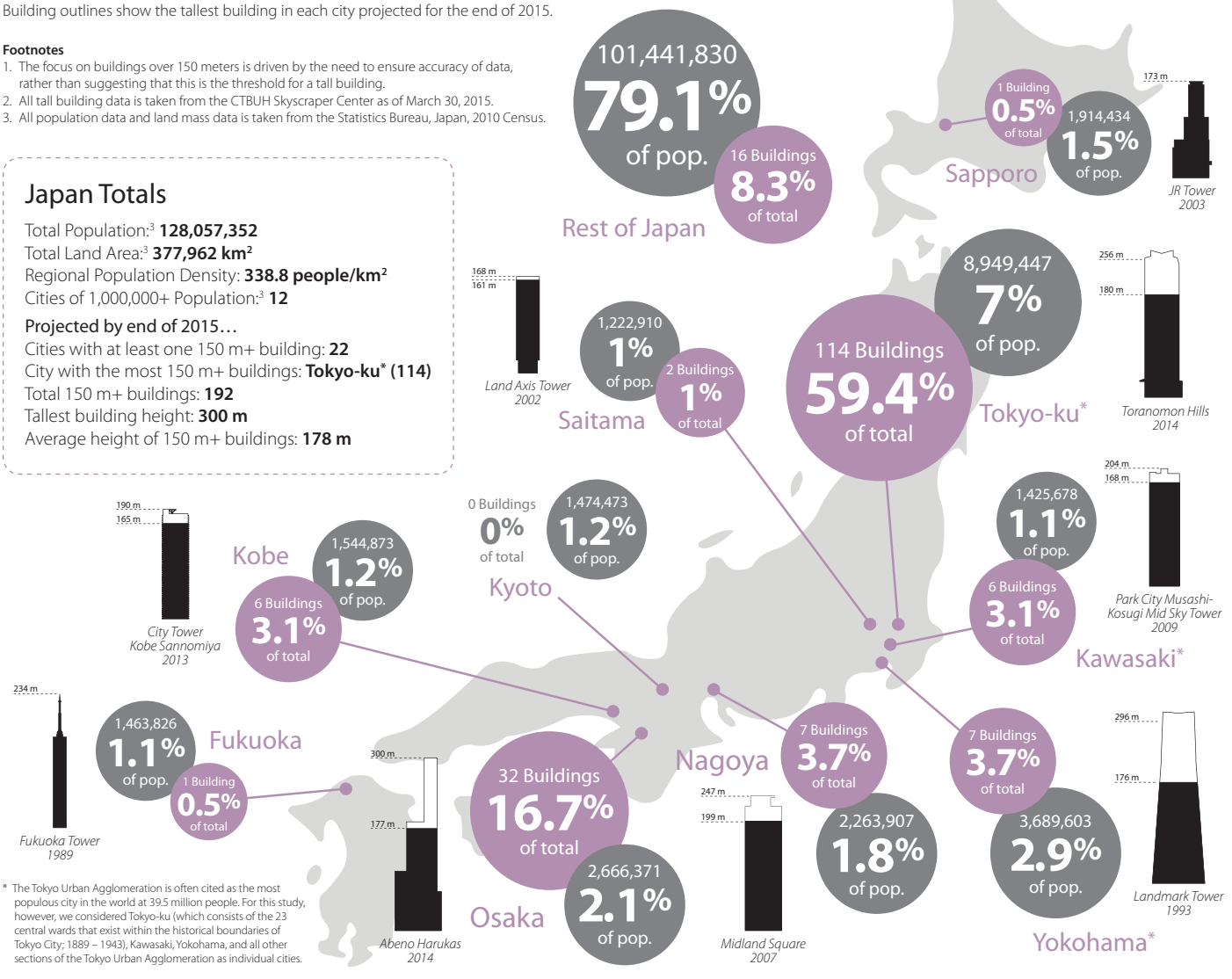
Footnotes

1. The focus on buildings over 150 meters is driven by the need to ensure accuracy of data, rather than suggesting that this is the threshold for a tall building.
2. All tall building data is taken from the CTBUH Skyscraper Center as of March 30, 2015.
3. All population data and land mass data is taken from the Statistics Bureau, Japan, 2010 Census.

Japan Totals

Total Population:[3] **128,057,352**
Total Land Area:[3] **377,962 km²**
Regional Population Density: **338.8 people/km²**
Cities of 1,000,000+ Population:[3] **12**

Projected by end of 2015…
Cities with at least one 150 m+ building: **22**
City with the most 150 m+ buildings: **Tokyo-ku* (114)**
Total 150 m+ buildings: **192**
Tallest building height: **300 m**
Average height of 150 m+ buildings: **178 m**



* The Tokyo Urban Agglomeration is often cited as the most populous city in the world at 39.5 million people. For this study, however, we considered Tokyo-ku (which consists of the 23 central wards that exist within the historical boundaries of Tokyo City; 1889 – 1943), Kawasaki, Yokohama, and all other sections of the Tokyo Urban Agglomeration as individual cities.

Nakagin Capsule Tower, Tokyo, 54 meters, became the world's first example of capsule architecture for permanent use in 1972

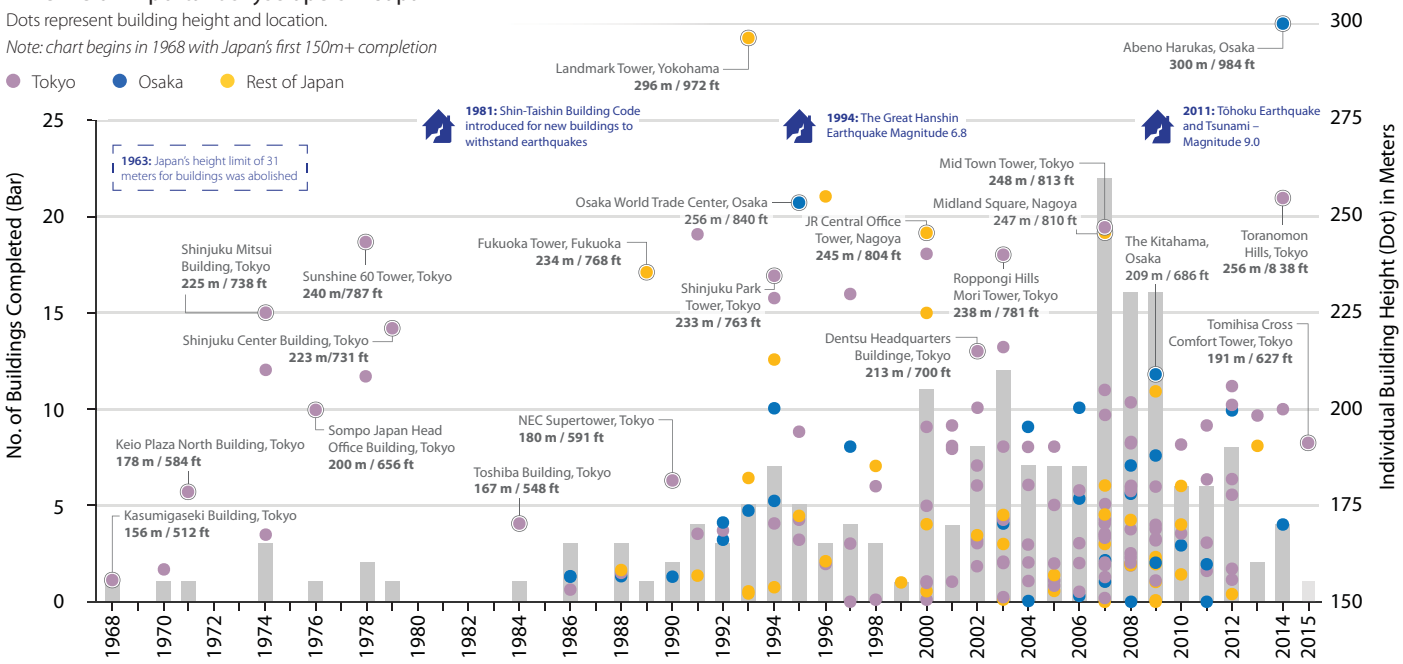
Upon completion in 1993, Landmark Tower, Yokohama, 296 meters tall, contained the world's fastest elevator (12.5m/s) and Asia's highest helipad

Osaka World Trade Center, 256 meters, was completed in 1995 and became the tallest building in Japan outside of the Tokyo-Yokohama metropolitan area

Timeline of Important Skyscrapers in Japan

Dots represent building height and location.

Note: chart begins in 1968 with Japan's first 150m+ completion

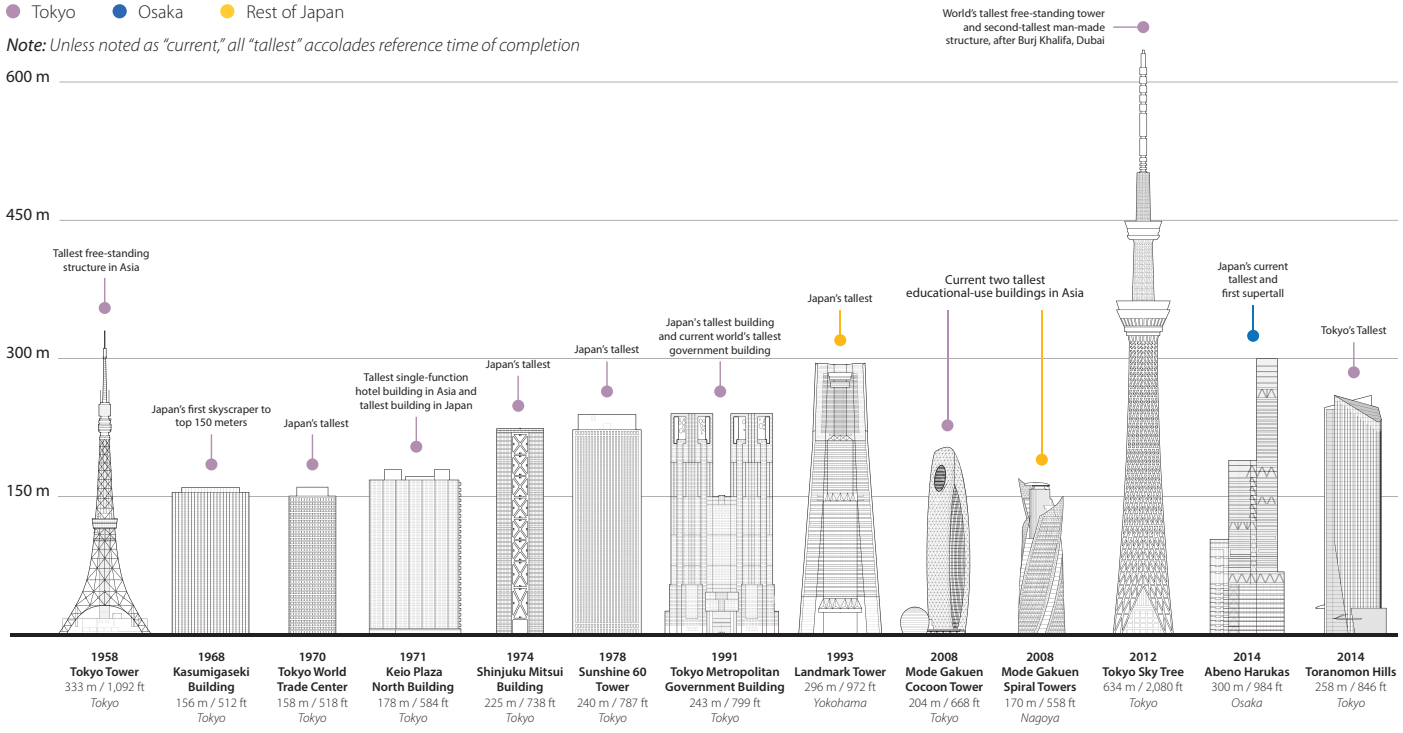


Note: We can predict 2015 building completions with some accuracy due to projects now in advanced construction.

Skyline of Important Skyscrapers in Japan

Tokyo Osaka Rest of Japan

Note: *Unless noted as "current," all "tallest" accolades reference time of completion*



The New York Bar on the 52nd floor of Shinjuku Park Tower, Tokyo, 233 meters tall, was featured prominently in the 2003 film "Lost in Translation"

March 11, 2011 – Tōhoku Earthquake and Tsunami (magnitude 9.0) kills 15,891 people; Tall buildings swayed significantly, but suffered no major damage, due to strict Shin-Taishin Building Code introduced in 1981

Japan has had bold skyscraper visions, including Sky City 1000 (1989) at 1,000m, and X-Seed 4000 (1995) at 4,000m, 224m; taller than Mt. Fuji, it is the tallest skyscraper ever conceived