

# The Pros and Cons of Reaching for the Sky

This issue's cover story on Kingdom Tower details the latest quest for the industry to reach new heights. However taller doesn't always lead to better. This month's debate topic, "Should buildings go taller?"

### NO

**Sharon McHugh**

*U.S. Correspondent, World Architecture News*

Buildings like Kingdom Tower are indeed technological tour de forces with much to be admired. But as buildings grow ever taller, those who bring such projects to fruition should carefully consider the impacts of building tall on the people, the community, and the environment. While tall buildings can indeed put cities on the map, drive tourism, and spark urban regeneration, they can also adversely impact those who live in and around them and disrupt the "urban stasis" – the delicate balance that cities depend on to work efficiently on all kinds of levels. For every argument in favor of building tall there is an equally compelling argument against it.

Take, for example, the benefits of living in tall buildings. While having a room at the top often comes with bragging rights and unobstructed views, living the "high life" is not always all it's cracked up to be. There is vertigo to deal with and concerns for safe egress in emergencies. And living at the top does not come cheap; just ask anyone in New York, where a buyer recently plunked down US\$90 million to live on the top floors of One57, a new 90-story luxury condominium.

Beyond the building occupants, tall buildings can adversely impact their surroundings. Big buildings require bigger bases and mile-high buildings will require even larger plinths. Accommodating these bases will result in the demolition of large swathes of urban fabric and lead to a loss of countless structures that are in perfectly good condition and contribute to the

diverse character of cities. One has to question whether this approach is environmentally friendly or energy conscious.

As supertall buildings cast large shadows, taller buildings will cast even larger ones which will be a challenge. Also of concern is the increased densification that comes with high occupancy buildings and how to deal with it effectively and humanely. Putting more people on the streets will add stress to a city's infrastructure – sidewalks, public transportation, and utilities that are not designed to handle the increased capacity.

While tall buildings can indeed contribute positively to our cities their impacts should be considered. The potential effects of a mile-high building need to be carefully studied and weighed. More planning and guidelines are needed to govern their location and prevent the harm they may cause.

### YES

**Bart Akkerhuis**

*Associate, Renzo Piano Building Workshop*

Living in our ever more fragile world, we have a great responsibility to build in a sustainable fashion. Building tall in our fast-expanding urban centers is the way forward. Around the world we find cities where low density, single family housing has become the standard. With more than half of the world's population living in cities this is not justifiable.

Living in larger, more spread out spaces puts high pressure on infrastructure. Automobile dependency results from building highway and parking infrastructure. Connecting public transport to the suburbs becomes significantly more expensive. The cost and

environmental impact for this type of expansion is no longer sustainable.

Densification of urban areas and city centers is the logical way to progress. Building tall in the right location, in existing cities, close to public transport nodes, and making use of existing infrastructure makes sense.

Of course we need to do this sustainably. Tall buildings are often criticized for their lack of sustainability, but that is changing. For example, with technology available today we can design adaptable façades which react intelligently to the changes of the weather during the day and the seasons, reducing solar gain when necessary and optimizing the use of natural daylight when possible. These types of designs reduce the energy needed for cooling and artificial lighting and bring us closer to the concept of a sustainable tall building.

The good news is that more and more designers, developers, and end-users are demanding sustainable design, incorporating technologies that promote renewables and low carbon energy. In these areas, tall buildings need to set the standards and offer an example for the entire building industry. The scale and potential impact of tall buildings justifies investment and research in new technologies on a large scale.

In 2030 the world population is estimated to reach eight billion with five billion people living in cities. Should we build tall? Yes, definitely. Designers and developers of tall buildings have to lead the way forward to build a sustainable future for an ever increasing world population.