

# ТЕНДЕНЦИЯ

1. Направление развития, склонность, стремление.
2. Замысел, идея какого-н. изложения, изображения

КИЛОМЕТР И ВЫШЕ

Sky City. Китай





# Broad Sustainable Building





360:00:00









Azerbaijan Tower. Азербайджан













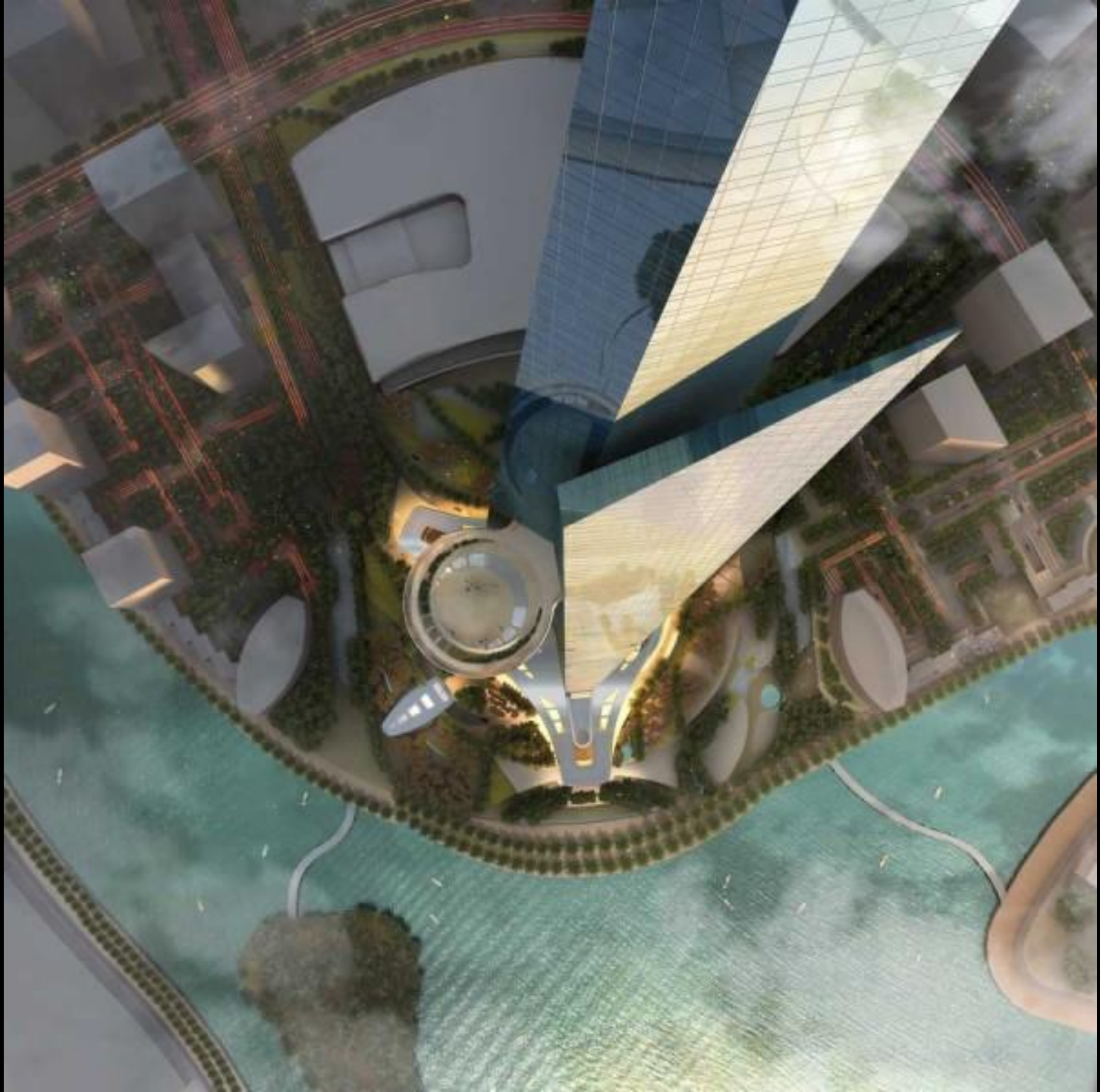
Kingdom Tower. Саудовская Аравия

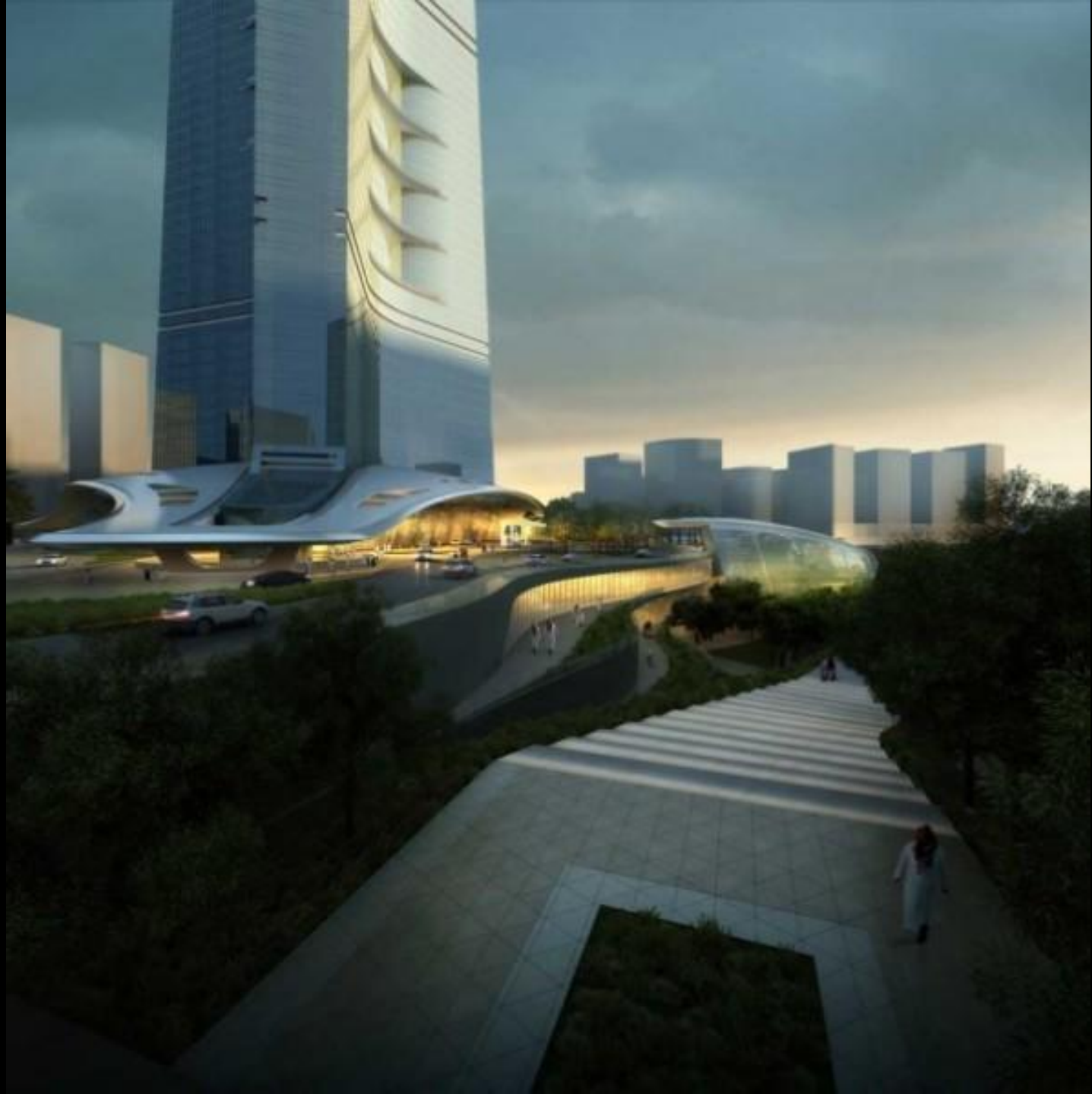














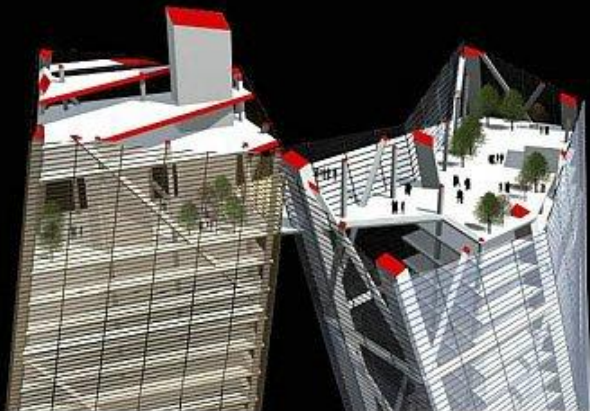
Madinat al-Hareer. Кувейт



Dubai City Tower. Объединенные  
Арабские Эмираты



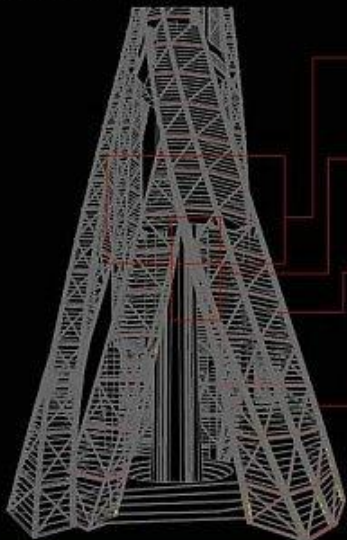




All buildings must be designed for some combination of gravity (self weight and occupancy loads), the moving earth (seismic events), and the moving air (wind storms). For a building reaching 1.6 miles the lateral forces from the wind exceed both the occupancy loads imposed on the floors and the lateral loads from earthquakes. To resist the forces and deflections imposed by the wind, shapes such as that of the Eiffel Tower tend to be the most efficient. This shape is both effective in resisting the forces from the wind and, as well, in distributing the forces imposed by the building on the underlying earth. The Dubai City Tower maximizes the Eiffel Tower shape while breaking up the overall mass into six separate buildings and a central vertical core. Three of the buildings rotate clockwise while the other three rotate counter-clockwise. The individual buildings intersect and are tied back to the central core every 100 stories creating a stable structural web. Internally each individual building is supported by corner super columns and cross bracing angled to resist wind forces. On the lower floors where the distances are too great to span between the walls of the external structure, a secondary line of internal columns braces the floor slabs. Structure within a building of this size is perhaps the most important component to a successful project. Formally the Dubai City Tower celebrates its structural ingenuity allowing the building to soar seemingly effortlessly 1.6 miles into the sky.

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STRUCTURAL WEB



**BUILDING CONNECTION POINT**  
BALANCE HORIZONTAL FORCES OF TWISTING STRUCTURE

**MULTI-STORY ATRIUM**  
DECREASE THE HEIGHT ON THE STRUCTURE WHILE PROVIDING NATURAL RELIEF TO THE BUILDING'S INHABITANTS

**CROSS BRACING**  
RESIST WIND AND BUILDING ROTATION

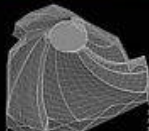
**CORNER SUPER-COLUMNS**  
DISPERSE LOADS THROUGH SUBSTRUCTURE TO THE GROUND

SKY PLAZA 100



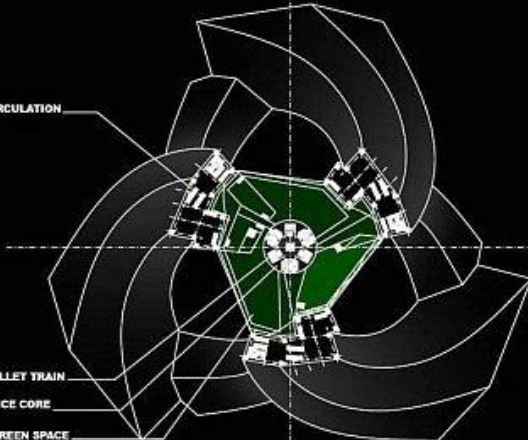
The Sky Plaza is the town center within the vertical city. The tower is broken down into four 100 story neighborhoods that are linked through the central core and Bullet train. Suspended between the rotating outer buildings each sky plaza serves to tie the tower together structurally, functionally, and more importantly socially. The plaza is the main meeting space for businessmen or residents. Large tree lined green spaces offer a park atmosphere in the sky while shops and entertainment complexes provide everything from leisure to necessary goods and services. The lower floors of the plaza act to service the above 100 stories. The vertical core feeds water and electricity upward while waste is transported downward. The experience of the Sky Plaza is like that of a town square bustling with activity and social interaction. These intermediated zones tie the idea of a vertical city together both metaphorically and functionally.

6000 || THIRDS CABLE  
|| || GLASS ENVELOPE



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INTERNAL CIRCULATION



VERTICAL BULLET TRAIN  
TOWER SERVICE CORE  
SKY PLAZA GREEN SPACE

0018 || ELEVATOR  
|| || ROBOTIC  
|| || CIRCULATION  
|| || PATH

0000 || ARRIVAL  
|| || PUBLIC PLAZA  
|| || EVENT SPACE

0000 || TOWER SERVICES  
|| || AND UTILITIES

