New York and the Skyscraper

GB Post and the protoskyscraper
Corporate headquarters and the race for the sky
The role of code and zoning regulations
Modern New York skyscrapers, Architecture and structure
1870-1901
New York,
Post
Chicago,
Root
First Equitable Building
George Browne Post
(1837-1913)
Western Union
Building
1875
230 feet tall
Woolworth 792 feet
Chrysler Building
1930
1046 feet
The Modern Era
World Trade Center
1977
1368 feet
gravity load
upper stories
lobby
transfer system
Green skyscrapers of the 90’s-00’s
Modern towers of the 90’s and 00’s
Hearst Tower

Arch: Norman Foster
Eng: Cantor Seinuk

Try to describe the load path for gravity forces in this structure. Comment on advantages and disadvantages.
New World Trade Center original proposal

Freedom Tower’s Evolution

New World Trade Center as-built

David Childs and SOM
80 South Street
Santiago Calatrava
Proposed
Plans abandoned
Repurposing the waterfront
What do each of the new buildings have in common?

What are the technical challenges in connecting buildings at such heights?