
Visio Series
TEAM VISIO
SKYSCRAPERS
intra

TEAM VISIO

SKYSCRAPERS

intra



Visio Series

Cover: © viktorbond



Edizioni Intra®
www.intrapublishing.com
info@intra.pro

All rights reserved.
Copyright © 2025 Intra S.r.l.s. – Pesaro, Marche, Italy

ISBN 979-12-5991-801-7

Contents

Contents	3
Introduction	7
PART I. Icons of the Past	13
Tower of Babel	14
Home Insurance Building (Chicago, United States)	16
Singer Building (New York, United States)	20
World Trade Center (New York, United States)	24
PART II. Icons of the Present	29
Jeddah Tower (Jeddah, Saudi Arabia)	30
Kavanagh Building (Buenos Aires, Argentina)	34
Q1 Tower (Surfers Paradise, Australia)	38
Eureka Tower (Melbourne, Australia)	42
Edifício Altino Arantes (Banespão) (São Paulo, Brazil)	46
Edifício Copan (São Paulo, Brazil)	50
First Canadian Place (Toronto, Canada)	54
Gran Torre Santiago (Santiago, Chile)	58
Canton Tower (Guangzhou, China)	62
Guangzhou CTF Finance Centre (Guangzhou, China)	66
CITIC Tower (China Zun) (Beijing, China)	70
Jin Mao Tower (Shanghai, China)	74
Shanghai Tower (Shanghai, China)	78
Ping An Finance Center (Shenzhen, China)	82
Lotte World Tower (Seoul, South Korea)	86
Kaktus Towers (Copenhagen, Denmark)	90
Iconic Tower (Cairo, Egypt)	94
Burj Al Arab (Dubai, United Arab Emirates)	98
Burj Khalifa (Dubai, United Arab Emirates)	102
Cayan Tower (Dubai, United Arab Emirates)	106
Tour Montparnasse (Paris, France)	110
Tour UAP (Tour First) (Paris, France)	114
Commerzbank Tower (Frankfurt, Germany)	118
Mode Gakuen Cocoon Tower (Tokyo, Japan)	122
Bank of China Tower (Hong Kong)	126
HSBC Headquarters (Hong Kong)	130
International Commerce Centre (ICC) (Hong Kong)	134
The Center (Hong Kong)	138
Gama Tower (Jakarta, Indonesia)	142

Torrione INA (Brescia, Italy) 146
Torre Piacentini (Genoa, Italy) 150
Bosco Verticale (Milan, Italy) 154
Grattacielo Pirelli (Milan, Italy) 158
Torre Velasca (Milan, Italy) 162
Torre Telecom Italia (Naples, Italy) 166
Intesa Sanpaolo Skyscraper (Turin, Italy) 170
Britam Tower (Nairobi, Kenya) 174
Merdeka 118 (Kuala Lumpur, Malaysia) 178
Petronas Towers (Kuala Lumpur, Malaysia) 182
Torre Reforma (Mexico City, Mexico) 186
De Rotterdam (Rotterdam, The Netherlands) 190
Tornado Tower (Doha, Qatar) 194
30 St Mary Axe (The Gherkin) (London, United Kingdom) 198
Lloyd's Building (London, United Kingdom) 202
The Shard (London, United Kingdom) 206
Lakhta Center (Saint Petersburg, Russia) 210
Marina Bay Sands (Singapore) 214
Torre Agbar (Barcelona, Spain) 218
Torre de Cristal (Madrid, Spain) 222
Torre Picasso (Madrid, Spain) 226
875 North Michigan Avenue (ex John Hancock Center) (Chicago, United States) 230
Aqua at Lakeshore East (Chicago, United States) 234
Marina City Towers (Chicago, United States) 238
St. Regis Chicago (Chicago, United States) 242
Willis Tower (formerly Sears) (Chicago, United States) 246
Wilshire Grand Center (Los Angeles, United States) 250
Panorama Tower (Miami, United States) 254
432 Park Avenue (New York, United States) 258
AT&T Building (Sony Tower) (New York, United States) 262
Bank of America Tower (New York, United States) 266
Chrysler Building (New York, United States) 270
Empire State Building (New York, United States) 275
Flatiron Building (New York, United States) 280
Hearst Tower (New York, United States) 285
Lever House (New York, United States) 289
One World Trade Center (New York, United States) 293
Seagram Building (New York, United States) 297
Steinway Tower (111 W 57th) (New York, United States) 301
30 Hudson Yards (New York, United States) 305
Salesforce Tower (San Francisco, United States) 309
Rainier Square Tower (Seattle, United States) 313
Ponte City Apartments (Johannesburg, South Africa) 317
Turning Torso (Malmö, Sweden) 321
Taipei 101 (Taipei, Taiwan) 325
Parque Central Complex (Caracas, Venezuela) 329

PART III. Visionary Projects 333

Dubai Creek Tower (Dubai, United Arab Emirates) 334

Dynamic Tower (Dubai, United Arab Emirates) 338
Vertical City (Dubai, United Arab Emirates) 341
Shimizu Mega-City Pyramid (Tokyo, Japan) 343
Sky Mile Tower (Tokyo, Japan) 346
X-Seed 4000 (Tokyo, Japan) 349
Palace of the Soviets (Moscow, Russia) 352
Ultima Tower (California, United States) 356
The Illinois (Mile-High Skyscraper) (Chicago, United States) 359
The Tribune Column (Chicago, United States) 362
The Big Bend (New York, United States) 365

Legal Notice 369

Introduction

Humanity's aspiration to challenge gravity is as ancient as civilization itself. From Mesopotamian ziggurats to Egyptian pyramids, from medieval bell towers to Gothic spires, verticality has always evoked ideas of transcendence, dominance, and beauty. The modern skyscraper emerges from this millennia-old tradition, yet it also represents a radical break from it. It is no longer a structure designed to approach the divine, but rather a rational and technological response to concrete needs: urban density, the cost of land, and functional efficiency. It is an architecture of necessity that quickly becomes an architecture of ambition. If its birth was an economic solution, its evolution is a story of global competition, relentless innovation, and a continuous redefinition of what it means to inhabit space.

The Genesis: Necessity and Invention in Chicago (1871–1900)

The skyscraper was not born from a utopian vision, but from a powerful convergence of necessity, technology, and context, which came together in a very specific place: Chicago. In the final decades of the nineteenth century, this young and dynamic Midwestern city became the ideal laboratory for a completely new building type—one that grew vertically not for spiritual display, but for practical and economic reasons.

The catalyst for this revolution was a disaster: the Great Fire of 1871. In just a few hours, flames destroyed the commercial heart of the city, much of it built of wood. Tragedy turned into opportunity. Reconstruction took place amid explosive growth, with land prices in the business district—the "Loop"—soaring. Maximizing usable floor area on increasingly expensive plots became an economic imperative, and the solution was clear: build upward.

Building toward the sky, however, required overcoming technological limits that had previously been insurmountable. The breakthrough came through a double technical revolution. The first was the introduction of the metal frame. Engineers such as William Le Baron Jenney realized that a grid of steel columns and beams could carry the entire load of a building far more efficiently than traditional masonry. The latter—whose walls in buildings like the Monadnock Building (1891) reached thicknesses of over six feet at the base—lost its load-bearing role and became a lightweight enclosure: the curtain wall. Buildings became lighter, brighter, and more flexible. The Home

Insurance Building (1885), fully supported by a metal skeleton, is universally recognized as the "father of the skyscraper," the first to fully embody this conceptual leap.

The second crucial innovation was the safety elevator. Patented by Elisha Otis in the 1850s, its fail-safe braking system made upper floors commercially viable, transforming them from marginal spaces into prestigious ones. This combination of structural frame and vertical accessibility made the invention of the skyscraper possible.

From the fusion of economic pressure and structural innovation emerged a radically new architectural approach: the Chicago School. Its leading figures—including Jenney, Louis Sullivan, Daniel Burnham, and John Wellborn Root—shared a design philosophy grounded in rationality and structural honesty. Freed from load-bearing constraints, the façade could finally express the internal grid, defining a modular rhythm of windows and piers. Ornament, according to Sullivan's famous principle "form follows function," was no longer a superficial decorative layer, but something that had to emerge organically from the building itself. Structures such as the First Leiter Building (1879) and, above all, the Reliance Building (1895), with its almost entirely glass façade, pushed this new aesthetic of transparency and lightness to its extreme, anticipating the language of modernism by decades.

The Golden Age: Symbol and Style in New York (1920–1940)

If Chicago was the pragmatic cradle of the skyscraper, New York became its theatrical stage. Between the 1920s and 1930s, the city transformed verticality into spectacle, national pride, and a declaration of power. The cultural backdrop was the Jazz Age—an era of unbridled energy and economic optimism—during which the skyscraper became the perfect symbol of the new America: bold, fast, and dazzling.

The very form of these new giants was shaped by regulation. The 1916 Zoning Resolution, a pioneering planning law, required buildings to step back progressively from the street in order to allow light and air to reach the ground. This dialogue between constraint and form proved extraordinarily fertile. The necessity of complying with the law produced, almost unintentionally, one of the city's most recognizable aesthetic signatures. The stepped setback form that we instinctively associate with the Manhattan skyline was not born from free stylistic choice, but from pragmatic obligation. A regulatory limitation thus became a creative opportunity, generating daring geometries and layered skylines that defined the visual identity of the metropolis.

The style that best embodied this vertical tension was Art Deco. Its façades emphasized upward movement through soaring lines and ribs, while decoration celebrated geometric forms and machine-age symbolism, executed in luxurious materials such as stainless steel and exotic marbles. Skyscrapers became instruments of "vertical marketing," stone-and-metal expressions of corporate power. Buildings like the Chrysler Building (1930) and the Empire State Building (1931) were not merely architectural projects, but cultural symbols, protagonists of the famous "race to the sky" that captured the public imagination and established New York as the world capital of modernity.

The Postwar Era: Rationality and Reaction (1945–1990)

After World War II, the glittering optimism of Art Deco gave way to an aesthetic of rationality and efficiency. The International Style rose to prominence, stripping the skyscraper of ornament and turning it into a pure object—a "glass and steel box." Ludwig Mies van der Rohe's famous aphorism, "Less is more," became the credo of an architecture that celebrated transparency, structural honesty, and formal abstraction. The Seagram Building (1958) in New York, designed by Mies himself, represents the apotheosis of this approach: a perfect glass-and-bronze prism, set back from the street to create a public plaza, a gesture that defined the corporate skyscraper aesthetic for decades.The history of the skyscraper can be read as a continuous oscillation between two fundamental impulses. On one side lies technological rationalism, seeking universal and efficient form, as seen in the Chicago School and the International Style. On the other is the desire for cultural and symbolic expression, evident in Art Deco. The austere, replicable perfection of the International Style, however, soon provoked a reaction. Its coldness and indifference to context were widely criticized, and in the 1970s and 1980s Postmodernism emerged, proclaiming "Less is a bore" and reintroducing history, color, irony, and symbolism into architecture. Philip Johnson's AT&T Building (1984), with its iconic broken-pediment crown reminiscent of a Chippendale cabinet, became the manifesto of this shift—a deliberate return to narrative and ornament in a landscape dominated by modernist abstraction.

The New Millennium: The Global Race Upward (1990–Today)

For nearly a century, the skyscraper's story was largely an American one. As the new millennium approached, the center of vertical competition shifted decisively toward Asia and the Middle East. The skyscraper became a socio-economic barometer, its global distribution mapping changes in geopolitical power. The dominance of Chicago and New York mirrored American industrial and financial supremacy. The construction boom in Kuala Lumpur, Taipei, Shanghai, and Dubai from the 1990s onward represents the physical manifestation of Asia's economic rise and the ascent of the Gulf states. Building the world's tallest structure became a geopolitical statement, a showcase of modernity.

This new era introduced unprecedented scales, with the categories of "supertall" (over 300 meters) and "megatall" (over 600 meters). Engineering pushed the limits of the possible, developing increasingly sophisticated structural systems and materials to counter wind and seismic forces. Yet this race for height was accompanied by a powerful desire for roots. New towers are not merely vertical machines, but monuments that engage with local culture: the plan of the Petronas Towers (1998) draws on Islamic geometry, the form of Taipei 101 (2004) evokes a bamboo stalk, and the silhouette of Merdeka 118 (2023) in Kuala Lumpur abstracts a historic gesture of national independence. In this sense, the story of a single building can sometimes embody the trajectory of an entire nation. Ponte City Apartments in Johannesburg, for example, stands as a concrete allegory of South African history—conceived as a luxury residence for the white elite during apartheid, descending into decay and violence in the post-apartheid era, and later embarking on a complex path of renewal that reflects the challenges and contradictions of contemporary South Africa.

The Contemporary Challenge: Sustainability and Vertical Humanism

In the twenty-first century, the measure of a skyscraper's success has changed radically. Height alone is no longer the primary metric; environmental performance has taken center stage. The "race to the sky" has been joined—and in part replaced—by a "race to sustainability." Buildings today are evaluated by their carbon footprint, energy efficiency, and resource management. The Commerzbank Tower in Frankfurt (1997) was an early pioneer of this approach, but certifications such as LEED Platinum have since become global benchmarks of excellence.

This green revolution finds radical expression in projects like the Bosco Verticale in Milan (2014), which transforms the façade into a living ecosystem capable of producing oxygen and increasing urban biodiversity. Vertical architecture is no longer merely an act of consumption, but a potential tool for environmental regeneration.

Finally, perhaps the greatest challenge is the human one. Living and working hundreds of feet above ground involves psychological paradoxes: expansive views contrast with the risk of social isolation, while the efficiency of density can generate sensory stress. The architecture of the future is called upon to respond with a form of "empathetic verticality"—buildings designed not only to function, but to foster well-being and community. The skyscraper, born as a pragmatic solution to a spatial problem, continues to evolve, reflecting our ambitions, our fears, and above all, our vision of the city to come.

The World's Tallest Buildings – Record-Holding Structures

Building	City	Height	Year	Years
Singer Building	New York	187 m	1908	1908-1909
Metropolitan Life Tower	New York	213 m	1909	1909-1913
Woolworth Building	New York	241 m	1913	1913-1930
40 Wall Street	New York	283 m	1930	1930 (one month)
Chrysler Building	New York	319 m	1930	1930-1931
Empire State Building	New York	381 m	1931	1931-1972
World Trade Center	New York	417 m	1972	1972-1973
Sears (Willis) Tower	Chicago	442 m	1973	1973-1998
Petronas Towers	Kuala Lumpur	452 m	1998	1998-2004
Taipei 101	Taipei	508 m	2004	2004-2010
Burj Khalifa	Dubai	828 m	2010	2010-Present

Shanghai Tower (Shanghai, China)

The Shanghai Tower represents the symbolic and structural pinnacle of China's rise in the era of globalization. At 632 meters tall, it is the tallest skyscraper in China and the second tallest in the world. Opened in 2015 in the heart of Lujiazui, Pudong's financial district, it completes a monumental trio with the Jin Mao Tower and the Shanghai World Financial Center, together narrating three generations of vertical ambition.

Designed by the firm Gensler, with Jun Xia as lead architect, the Shanghai Tower is a paradigmatic example of sustainable neofuturism. Its sinuous, spiraling profile is not merely an aesthetic gesture: the nearly 120-degree twist along its vertical axis reduces wind loads by up to 24 percent, allowing significant structural and energy savings.

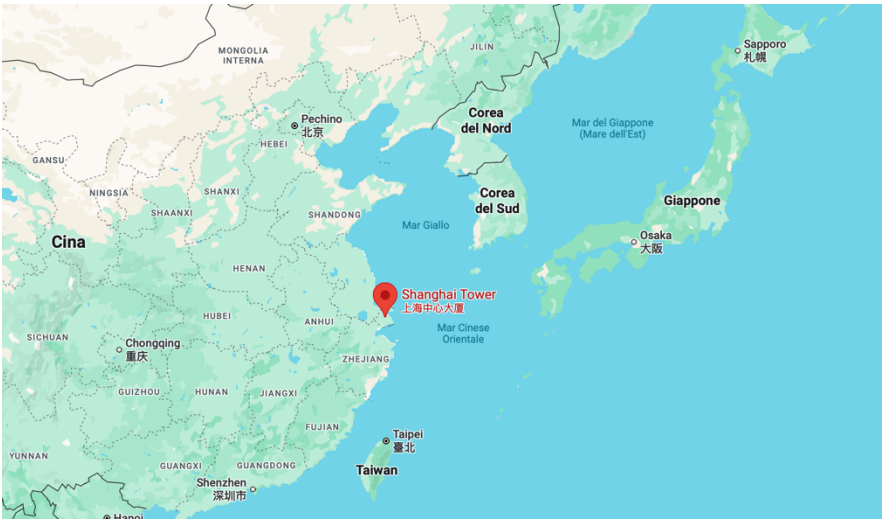
The most distinctive innovation, however, lies in its double-skin façade. The tower consists of an inner cylindrical structure—housing offices, a hotel, and commercial spaces—wrapped by an outer glass envelope that spirals upward around it. The space between the two skins forms a vast vertical cavity, subdivided into nine "sky gardens," each rising between 12 and 15 floors. These atriums function as vertical plazas, featuring cafés, greenery, meeting points, and relaxation areas for occupants. Environmentally, they act as a giant thermal buffer, dramatically reducing heating and cooling demands by moderating heat exchange between interior and exterior.

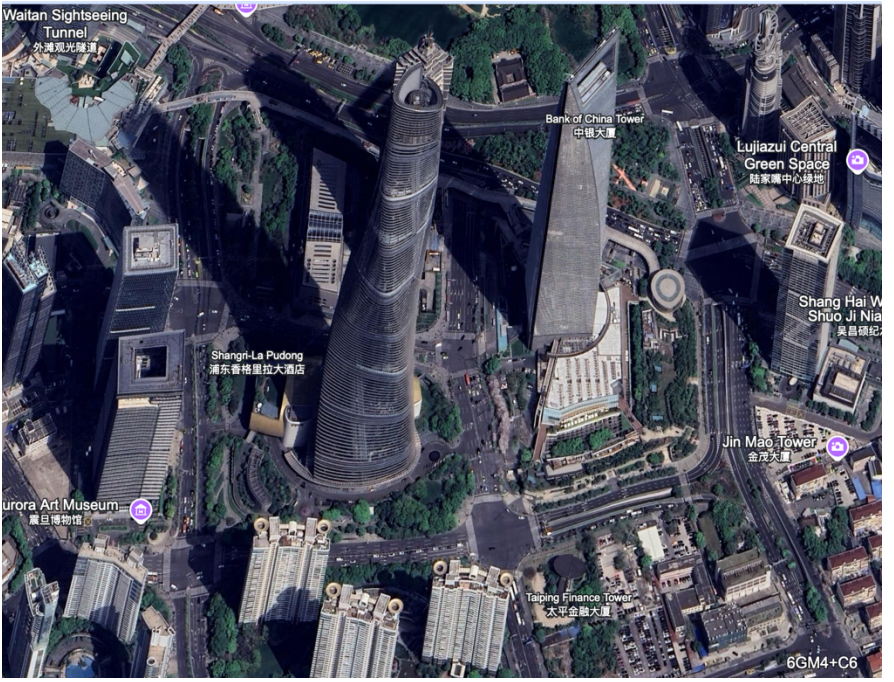
The building also incorporates cutting-edge technologies, including wind turbines, rainwater harvesting systems, photovoltaic panels, high-performance glazing, and some of the world's fastest double-deck elevators, capable of reaching speeds of up to 74 km/h. Together, these solutions earned the tower LEED Gold certification, a benchmark of excellence in sustainable design.

On a symbolic level, the Shanghai Tower embodies the concept of a multilayered vertical city—self-sufficient and community-oriented—aligned with traditional Chinese values of harmony and flow. Its design, evoking the helical movement of energy, merges cultural heritage, technological innovation, and urban soft power, making it a reference model for 21st-century architecture.



Shanghai Tower (Shanghai, 2015) – Photo: 2016, Stefan Fussan/Wikimedia





Source: Google

Name	Shanghai Tower
Location	Shanghai, China
Height	632 m
Floors	128 floors (plus 5 underground levels)
Year	2015
Architect	Gensler (Jun Xia)
Style	Sustainable neofuturism
Function	Offices, hotel, commercial spaces, observation deck
Features	Helical wind-reducing form; double façade with sky-garden atriums; ultra-fast elevators; wind turbines
Accessibility	Public observation deck on the 118th floor
Trivia	Second tallest building in the world

501 Yincheng Rd (M), Lujiazui, Pudong, Shanghai, China, 200120

31°14'10"N 121°30'05"E

Shanghai Tower Videos and Documentaries




Over 500 full-color images and QR codes
An interactive volume
intra
Visio Series