

Top this one: The continuing saga of the tallest building in the world

By Anthony W. Robins

Donald Trump's recently announced plans for a 150-story tower on Manhattan's West Side have reactivated the seemingly forgotten obsession with constructing "The World's Tallest Building." In this century that title was a New York institution until Chicago stole it with the Sears Tower. American claims for the ability to build it date back at least to mid 19th-century New York, when James Bogardus wrote that, given his novel cast-iron architectural techniques, he could erect a building several miles high.

The Singer Tower (1906) on lower Broadway was the earliest "world's tallest building" to hold a widely advertised claim to that title. It was followed shortly by the Metropolitan Life Tower (1908), which in turn was topped by the Woolworth Building (1913). Woolworth held the title into the 1920s until the Chrysler Building beat out the Bank of Manhattan in a celebrated race to become the new titleholder in 1929. Just over a year later, the Empire State Building opened its doors, and by virtue of the lack of building during the Depression and World War II, followed by a trend of low, bulky office buildings constructed during the 1950s, held onto the title for 40 years. So entrenched was the notion of the Empire State as the world's tallest structure that, when the World Trade Center project was announced during the 1960s, the Empire State Building's owners sued (unsuccessfully) to stop it. The Trade Center sparked a new round of attempts including, in addition to the Sears Tower, a number of unbuilt proposals for 135- to 150-story structures.

The question arises: why? A key, in almost every case, seems to have been advertising, with an eye to the value of public relations.

The quest for the world's tallest building can be traced back as far as the plains of Shinar, where the builders of a certain brick-and-stone tower tried unsuccessfully to pierce the heavens, and had their tongues scrambled. In modern times, however, its source is to be found in the liberating effect of elevators and steel cages on office-building heights.

Until the late 19th century, church steeples and public monuments invariably provided any city's tallest structures. "Skyline" referred to the vista of spires, domes, and obelisks rising above a generally level collection of five-story houses and commercial structures. In 19th-century New York, for example, the succession

of tallest buildings led from the 200-foot spire of St. Paul's Chapel (1794) to the 215-foot St. John's Chapel (1807), and then to the 254-foot-tall steeple of Trinity Church (1846), whose observatory enjoyed wonderful panoramas of the city.

Commercialism did not challenge piety until 1853, when the 300-foot-tall wood-and-iron Latting Observatory was erected at 42nd Street and Fifth Avenue to sell spectacular views to tourists visiting New York's first world's fair. That same year New York's cast-iron promoter James Bogardus staked his prophetic claim, adding that his miles-high tower "would be perfectly safe to visitors, in the face of storm or tempest, though they filled it throughout every story to its utmost capacity." Although cast-iron buildings never rose to the heights of Bogardus's ambition, their steel-cage successors began the ascent. The height of office buildings started to climb shortly after the close of the Civil War, particularly in a cluster around New York's City Hall. From the Equitable Life (1868) at 130 feet, ever taller towers leapfrogged toward the heavens, creating a string of ephemerally titled "tallest office buildings." The mark of the Latting Observatory was surpassed in 1890 when the Pulitzer Building reached 309 feet "from sidewalk to lantern." The Pulitzer's further claim that its height could be calculated at 375.5 feet "from the foundation to the top of the flagstaff" provides some sense of the claimant's mood. Proposals for buildings as high as 500 feet were floated throughout the 1890s. By century's end the Park Row Building (1896) had reached the dizzying height of 390 feet.

None of the 19th-century skyscrapers, however, could claim to be anything more than what the 1893 *King's Handbook of New York* called the Pulitzer Building: the "tallest office building in the world." Neither could the first 20th-century attempt, the 1901 Philadelphia City Hall, atop whose enormous tower William Penn's hat floats 548 feet above Center City. Three major monuments of the 1880s dwarfed them all: Cologne Cathedral, the tallest in Europe, reached 512 feet in 1880; the Washington Monument, the tallest in America, arrived at 556 feet in 1884; and, cruelest blow of all, in 1889 the Eiffel Tower rose to the 1,000-foot mark. The Eiffel Tower could be dismissed (as it was until the Chrysler Building surpassed it) as merely an open "structure," but not so the other two.

The skyscraper as "world's tallest building" emerged only in the 20th century, and the first was heralded in February 1906 by *The*



The Singer Tower, 1906

New York Times, whose headlines blazoned forth:

"TALLEST SKYSCRAPER TO STAND IN BROADWAY
Singer Company's Tower Will Be the Highest by 200 Feet
ONLY THE EIFFEL LOFTIER"

The Singer Company had already occupied its headquarters on the site for some years. As the company grew, it bought up additional frontage on Broadway and then commissioned its architect, Ernest Flagg, to expand the complex and add the tower: 36 stories, plus a four-story dome, a cupola, and, "if that isn't high enough—a flagstaff." Total height, according to the first announcements, would be 593 feet 10 2/3 inches.

The company modestly noted that the new tower would be "higher than all existing skyscrapers by from 200 to 300 feet, and . . . about 40 feet higher than the Washington Monument." Moreover: "It will be nearly 60 feet higher than the Philadelphia City Hall, more than 200 feet higher than the Park Row Building or the Times Building, and over 100 feet higher than any of the famous spires of Europe, with the exception of those of the Cologne Cathedral, which rise 512 feet above ground." Two years later, upon completion, the Singer Tower actually stood a little taller than originally planned: 612 feet, or, by coincidence, exactly 100 feet higher than Cologne Cathedral.

Why so tall? In August 1903, during a lull in the skyscraper business, the editors of the *Real Estate Record and Guide* had forecast the new crop of tall buildings that would eventually start to rise again, describing them as 30- or 40-story buildings put up



Metropolitan Life Tower, 1908

"as much for advertisement as profit. Such very tall buildings do not offer any very considerable chances of profit, . . . but they may have their uses as monumental paths to display financial exuberance." The editors understood their industry. The Singer Tower served as a gigantic flagpole supporting a 30-foot-long banner with the company name spelled out in red on white. The Singer Observatory opened in June 1908, billed as "the highest observation tower in the world." The 40 people it accommodated enjoyed 30-mile views while official guides pointed out the sights.

Even as the Singer Tower was under construction, however, its claims were doomed. Early in 1907 the Metropolitan Life Company announced its plans for a 50-story, 658-foot-high tower. By April of 1908, its proposed height had risen to the rounder figure of 700 feet.

Like the Singer Company, Metropolitan Life intended its tower, designed by Napoleon Le Brun & Sons, to consolidate and complete its headquarters complex, begun on Madison Square in the 1890s. Space needs, though, hardly necessitated a 700-foot tower, and the company's own claims over the years speak eloquently of less tangible necessities. According to one of the building's many official biographies, company president Haley Fiske considered the tower "a magnificent advertisement. It was far less costly, he said, than Prudential's popularizing of the Rock of Gibraltar because the tower's tenants paid the bill." Competition with the Singer Building also seems to have been a motivating force. Another official history rhapsodized over the new observatory that rendered the



The Woolworth Building, 1913

Singer's superfluous, commanding a view of "the homes of over one-sixteenth of the entire population of the United States." The great Singer banner, visible merely from the harbor, was outdone by an enormous "electric beacon" dubbed "The Light That Never Fails."

Was the Singer Company unhappy? Probably. In July 1908, while circulating its building's vital statistics, beyond claiming its height of 612 feet "from the sidewalk to the base of the flagstaff," the company added that not only was the building 672 feet to the top of its flagstaff, but in fact, when measured from its foundations, the tower actually rose to 762 feet. Needless to say, Metropolitan Life was able to cook its own statistics accordingly. Only in the late 1960s was the Singer Tower able to recapture some part of its brief glory, when, replaced by the U. S. Steel Building, it became the tallest building in the world ever to be demolished.

With the completion of the Singer Tower and the topping out of Metropolitan Life, both in 1908, a hitherto unsuspected passion was unleashed in the real-estate and building community. On June 30th, not six days after the opening of the Singer Tower's observatory, the Equitable Life Company provoked the following *Times* headline:

"909-FOOT SKYSCRAPER TO TOWER ABOVE ALL Architects File Plans for New Equitable Life Building Here 62 Stories High 1,059 FEET TO FLAGPOLE TIP"

The skyscraper, to be designed by renowned Chicago architect Daniel Burnham, produced even more outrageous statistics: "The



The Chrysler Building, 1929

towering Singer Building and the Metropolitan Life tower will be put in the shade by the projected new building," half again as tall as either one. "The Washington Monument, only 556 feet in height, will measure scarcely more than half the height of this new skyscraper, and the famous Pyramid of Cheops, now only 451 feet high, will be actually less than half as high." (On the same page, Prince Sidkyong Tulku of Tibet, asked his opinion, replied: "Your building isn't really high. In my country there is a mountain 30,000 feet high rising at my feet. It is Mount Everest.")

The Metropolitan Life had been a blow, but Equitable's announcement was simply too much for Ernest Flagg, architect of the Singer Tower. Two weeks later word leaked to the press of a 1,000-foot-high tower "that will overtop the proposed Equitable Building by about 100 feet, and will put the Singer tower down in a valley." Flagg was unavailable for comment, but at his office it was admitted that "such a project is under way. The matter, however, is yet in the earliest stages. Until Mr. Flagg returns from Europe nothing definite will be done." Nothing, of course, was ever done, nor did Equitable Life's 909-foot tower come into being. The Equitable was built, however, not as the world's tallest but rather the world's densest office building, and the furor it provoked ultimately led to the adoption of New York's 1916 Building Code, which attempted to regulate skyscraper construction.

The Metropolitan Tower emerged from the 1908 scramble as still the world's tallest building, but Frank W. Woolworth was hot on its trail. Woolworth, founder of the five-and-



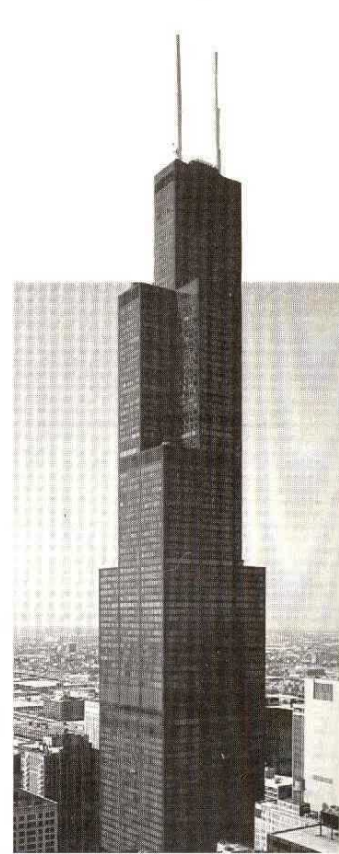
The Empire State Building, 1931

dime store, had consolidated his business into a mass-merchandizing empire, and his stores had become an international institution. Woolworth determined to build himself a suitable headquarters on Broadway, overlooking City Hall Park.

Woolworth began planning in 1910, just a few months after Metropolitan Life's celebration banquet for the completion of its new tower. From initial plans for a standard 12-to-16-story building on a corner site, his concept began growing, in competition with the city's great towers. First he thought about 20 stories to over-top the Pulitzer Building across City Hall Park; then he went to 44 stories and 550 feet. Not satisfied, he asked his architect, Cass Gilbert, how his project compared with the Singer Building and instructed him to raise his projected building to 620 feet. Still troubled, he had a civil engineer measure the Metropolitan's height and told Gilbert to make the Woolworth Building "fifty feet higher." Even that was not tall enough for Woolworth, and in the end his tower reached 792 feet.

Woolworth made no bones about the reasoning behind his decision. Reminiscing to a reporter, he explained that while traveling in Europe, he noticed that "wherever I went, the men with whom I came in contact asked me about the Singer Building and its famous tower. That gave me an idea. I decided to erect a building that would advertise the Woolworth five-and-ten cent stores all over the world."

The outbreak of World War I put an end to the first great flurry of world's tallest buildings, with the Woolworth Building solidly in control of the title. The mighty trio



The Sears Tower, 1972

of Singer, Metropolitan Life, and Woolworth had permanently changed the nature of the skyline. In 1906, on the eve of their construction, the rector of the Church of the Holy Trinity decided against replacing its damaged 309-foot spire, the tallest in Brooklyn. Skyscrapers effectively removed the spire's purpose, and he felt the church should not enter "into competition with the market place." In January 1914 a writer to *The Times* suggested that, to redeem the once-religious character of the skyline, the Singer, Metropolitan Life, and Woolworth buildings each be crowned with an electrically illuminated cross.

The suggestion was politely ignored, but oddly enough the first post-war attempt to top the Woolworth Building included a similar gesture. In 1921, architect Bertram Grosvenor Goodhue (who had just designed the Nebraska State Capitol as a 400-foot-high skyscraper that some termed a "secular cathedral") set the tone and the challenge for the decade by proposing the first 1,000-foot skyscraper of the 1920s. Instead of a commercial office tower, however, he proposed a Convocation Tower, intended to house the offices of all the Protestant churches in America, rising above a vast sanctuary. Hugh Ferriss's rendering of the 80-story structure showed an enormous illuminated cross at its top.

The 1,000-foot skyscraper became the dominant fantasy of the decade's builders and although it was not until the very last year of the '20s that the Woolworth Building and the 1,000-foot mark would be surpassed, the idea was on the city's collective mind, and theories, discussions, and proposals surfaced regularly. Early 1923 saw

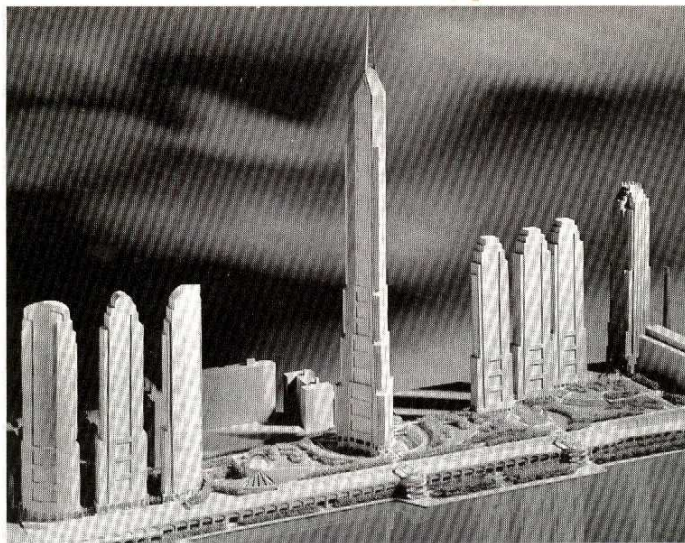
the publication of a hypothetical, 1,000-foot-high skyscraper designed by Helmlé and Corbett, and by the end of that year the possibility of 2,000 feet was being publicly discussed.

The following year, an 88-story project was announced not for New York, but rather for Mussolini's Rome. Mario Palanti, "the noted Italo-Argentine architect," proposed a 1,100-foot-high pyramid, 1,000 feet broad at its base, containing "4,500 rooms, 100 large halls, a huge theatre, a gymnasium for the training of Olympic athletes and a concert hall. It is planned as the centre of Roman culture and athletic life." Its statistics were compared with those of Cologne Cathedral, the Eiffel Tower, and the Woolworth Building, whose "vertical lines" it was said to imitate. New York responded in 1926 with an even taller, but equally imaginary project—the 110-story, 1,200-foot-high Larkin Building, proposed for West 42nd Street. Announced in December by developer John Larkin, it inspired a burst of discussion in the national and international press. News of the Larkin Building continued throughout the decade, as one problem after another stalled the project. When last heard from in April 1929, it was awaiting final fire-insurance rates.

Predictions for 100-story buildings continued throughout the mid- and late-1920s. It was only in 1928, however, that New York saw the beginning of the whirlwind of proposals that resulted in the erection of, first, the Chrysler Building and, second, the Empire State, both of which finally surpassed not only the Woolworth Building but also the Eiffel Tower and the 1,000-foot mark—just in time for the Great Depression to render such projects pointless.

The drama began with yet another wishful project: the Reynolds Building. Announced in the summer of 1928, this was to be a speculative office tower built for state-senator-turned-developer William Reynolds. The "final sketch" published in the August issue of *American Architect* showed the structure "to be 67 stories high rising 808 feet above the street and . . . surmounted by a glass dome, which, when lighted from within, will give the effect of a great jeweled sphere."

Designed by William Van Alen, the Reynolds Building was billed, naturally, as the "world's tallest." Reynolds became sidetracked somewhere along the line, but two months later along came Walter P. Chrysler, who bought from Reynolds the site, the project, and the architect. Chrysler was a self-made man, an engineer who had



risen to head the nation's second largest automobile manufacturer. In 1928 he had consolidated his company by acquiring Dodge Brothers. His position, in short, was not unlike Frank Woolworth's in 1910.

Chrysler's version of Reynolds's project moved along nicely at 808 feet for several months, but soon got caught in a round of one-upsmanship that forced up its height by several hundred feet. In April 1929, it was announced that the new Bank of Manhattan headquarters on Wall Street would become the world's tallest building. Salt in the wound: the architect of the Bank of Manhattan was to be H. Craig Severance, William Van Alen's former partner.

Now New York's major builders began to throw their hats into the ring. Robert W. Goellet, scion of one of the city's oldest land-owning families, announced his own intentions to nip Chrysler's aspirations in the bud with an 80-story skyscraper on a site directly across the street. A. E. Lefcourt then announced his intention to build the world's tallest building—a 1,050-foot skyscraper in Times Square—while Fred F. French began hatching plans to construct an 83-story, 1,100-foot-high tower on Sixth Avenue at 43rd Street.

Watching from the wings, Metropolitan Life apparently felt the itch to recapture its former glory and announced tentative plans to raise its newest 32-story addition to a full 100 stories. All these plans (in what the *Real Estate Record and Guide* referred to as "the autumnal epidemic of world's tallest buildings") paled beside the "premature" announcement that realtor Charles F. Noyes was planning a 150-story skyscraper to span two full blocks of lower Broadway, while skyscraper builder William A. Starrett defended the structural feasibility of 200 stories. As the competition reached its full height, however, the stock market crashed, taking with it all but the most solidly planned towers. With the field cleared, the Chrysler and the Bank of Manhattan began their battle in earnest.

October of 1929 had found the Chrysler Building's announced height as 68 stories and 808 feet,

with the Bank of Manhattan heading for 840 feet. Soon Chrysler was rumored to be working toward a new height of 925 feet; the Bank of Manhattan, in what had become a very public rivalry, in turn aimed for 927 feet. Determined not to be beaten, Chrysler and Van Alen arranged the public-relations coup of the decade. A 185-foot metal spire, weighing 27 tons, was designed to raise the skyscraper's height well beyond anything the Bank of Manhattan could dream of. In Van Alen's words: "It was manifestly impossible to assemble this structure and hoist it as a unit from the ground, and equally impossible to hoist it in sections and place them as such in their final positions. Besides, it would be more spectacular, for publicity value, to have this cloud-piercing needle appear unexpectedly." The spire, made and delivered in five sections, was secretly assembled inside the building. Once it was readied, and attached to a derrick, "the signal was given, and the spire gradually emerged from the top of the dome like a butterfly from its cocoon, and in about 90 minutes was securely riveted in position, the highest piece of stationary steel in the world."

What was in it for Chrysler? He built the Chrysler Building as a strictly personal venture, without involving his corporation. He once claimed that he did it so that his sons would have "something to be responsible for," and his son Walter, Jr. did become president of the building. He claimed, disingenuously, that a trip to Paris had inspired him and that he had "said to the architects: 'Make this building higher than the Eiffel Tower.'"

The tallest building in the world, which bore his name, served principally as a symbol of the Chrysler Corporation, and of Walter Chrysler. It is instructive that the customary observatory at the top of the building had on permanent display, enclosed in a glass case, the workman's tools with which Walter Chrysler began his career.

The building, in short, was an advertisement. Was this a secret? Hardly. While the race with the Bank of Manhattan progressed, one of the many feature articles published on the subject of tall

The most recent proposal to erect the world's tallest building is Donald Trump's Television City, a mixed-use Manhattan megaproject designed by Helmut Jahn that would include a 1,670-foot-high, 150-story tower.

buildings observed that "if the race itself is a competition in advertising, so, in a manner of speaking, have been all the competitions in tall buildings from the time when Pharaoh vied with Pharaoh, matching tomb against tomb, to the pious rivalry of the cathedral builders, each seeking to raise a pointed arch or spire nearer to God."

The public avidly followed the competition in skyscraper heights. In 1930 the *New York Sun* published a list of the 50 tallest buildings in New York, arranged by height, and shortly afterward the architectural journal *Pencil Points* reprinted it, noting that "interest in the heights of New York skyscrapers does not seem to abate, if we may judge by the inquiries concerning them received in this office." A cartoon in the same issue showed an architect with a rendering of a pointed skyscraper and a caption reading: "You see, this spike runs down the entire length of the building and if anyone builds a taller building, we can jack up the spike and still be the tallest!"

The Chrysler Building unfortunately had no such spike, and its brief, 18-month reign as the world's tallest building ended with the topping out of the Empire State Building in 1931. The height of the Empire State was purely a public-relations gimmick. Unlike its predecessors, the Empire State wasn't a corporate headquarters or a personal symbol. Nor was it an attempt by an established developer or builder to enter the fray. Rather, it was a strictly speculative venture by an industrialist, John Jacob Raskob of General Motors, who tried everything he could think of to draw publicity to his building. He used the site of the old Waldorf-Astoria Hotel, he hired former New York governor Al Smith to be the company's president, and he went higher than Chrysler. His strategy was an aggressive advertising campaign to market the Empire State Building as the world's tallest building, headed by the world's most popular former politician and located on the world's most prestigious site.

Raskob initially planned an 86-story office building, 1,050 feet tall or just four feet higher than the Chrysler Building. According to rental manager Hamilton Weber, "Raskob was worried that Walter Chrysler would pull a trick—like hiding a rod in the spire and then sticking it up at the last minute." Raskob's architects, Shreve, Lamb & Harmon, therefore designed the addition of an enormous structure above, intended to be a mooring mast for dirigibles—more public relations—thereby raising the building's height to 1,250 feet. The

mooring mast, housing only an elevator and a spiral staircase, was figured as the equivalent of 14 stories which, added to the 86 office floors, produced 100; Raskob threw in the two basement levels to arrive at 102 stories, a figure that the Empire State Building, somewhat fraudulently, claims to this day. In 1930 architect R. H. Shreve wrote in *ARCHITECTURAL RECORD* that very tall office buildings did not make economic sense unless advertising value was factored in. The economics made more sense than he knew: during the Depression that followed, only the fees collected by the building's observatory kept its skyscraper solvent.

Skyscraper construction continued into the Depression as pre-Depression projects like the Empire State Building and Rockefeller Center went ahead as

planned. Late in 1930, architect Francisco Mujica announced plans for a 100-story building. Optimism about skyscrapers, however, gradually waned. True, Raymond Hood discussed 7,000-foot buildings in 1932, and in 1937 a prediction was made of 2,000-foot buildings by 1960. That same year, moreover, the Kremlin issued an announcement that Moscow would soon build the world's tallest structure. The word in the press about super-tall buildings, however, was that their "day is over," and in 1942, Harvey Wiley Corbett, who had proposed but never built several 100-story towers, predicted the disuse of skyscrapers altogether. With the end of World War II, office-building construction began again, but low, bulky structures became the norm. Skyscrapers appeared to be relics of a bygone age.

While the Empire State Building reigned serenely through the decades, a challenge flared momentarily in the Midwest. Frank Lloyd Wright unveiled a proposal for a "Mile-High Office Tower," in Chicago, to be christened "The Illinois." In 1956, exactly 100 years after Bogardus first announced that his cast-iron structural technique would enable buildings to rise for miles, Wright proffered his own structural rationale concerning the tripod form joined to "new principles of cantilever-steel in suspension."


Where had Chicago been all this time? The Second City possessed the only other important collection of late 19th- and early 20th-century skyscrapers in America. In 1892, Burnham & Root's Masonic Hall there briefly claimed the distinction of "tallest office building," but the

city had then seen the "tallest" potential of its towers stunted by a succession of municipally imposed height restrictions of the kind often discussed, but never adopted, in New York. These were gradually lifted during the 1920s, and in 1928 Chicago entered the race with a proposed 75-story skyscraper to be called the Crane Building. The Crane never materialized, however, nor did Wright's Mile-High Tower, and Chicago's challenge to New York had to be postponed.

The Empire State Building kept its title until the 1960s, when the Port Authority of New York and New Jersey commissioned Minoru Yamasaki to design the 110-story twin towers of the World Trade Center. The Port Authority claimed that its program of 10 million square feet of office space, combined with Yamasaki's desire to put as much of it as possible up in the air to create an enormous open plaza, led to the towers' height. Nevertheless, Guy Tozzoli, the man who developed the project, admits to a "marketing bent," and it is curious that the towers' height of 1,350 feet is just 100 feet taller than the Empire State Building.

Lawrence Wien, chief owner of the Empire State Building, took the approaching loss of prestige poorly and actually sued to stop the twin towers. After he lost and construction of the World Trade Center began, Wien retained Shreve, Lamb & Harmon to study the situation. In 1972 the firm proposed to recapture the title by adding 11 stories to the Empire State, and a number of possible designs were published, including one that squared off the romantic spire into a box remarkably like Yamasaki's towers. Even while the twin towers were still under construction, however, the Sears Company in Chicago announced its intentions to build the Sears Tower—curiously, at 1,450 feet, just 100 feet taller than the World Trade Center. Some cynically pointed to Chicago's supposed "second-city" complex about New York; it didn't help that Mayor Daley took it upon himself to boast that Chicago would soon have even a 250-story building. Yamasaki pronounced himself unperturbed by the loss of the ever-ephemeral title, wisely recognizing that another rush was on. The 1973 recession momentarily ended the madness, but it has resurfaced in the 1980s, with talk of 135- and 150-story buildings, and claims far exceeding them. Whatever the coming years bring, it will be useful to recall the lessons this curious history has to teach us. Despite all the hoopla, only major corporate figures have been able to pull it off—never a lone architect or, Mr. Trump take note, a lone builder. All attempts have been part of concentrated spurts of building—1908-13, 1928-31, and 1966-73—so that most of the title-holders have worn the crown for only a few months. Finally, despite the disinterested rationales that may be offered, there has been and continues to be only one motive for constructing the "world's tallest building": public relations at the highest levels.

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