

Louis Sullivan and the Birth of the Skyscraper

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AS WITH MANY UBIQUITOUS artifacts, it is hard to pinpoint the precise time and place skyscrapers were born. Tall structures go far back and include Egyptian and South American pyramids; the Colossus of Rhodes, an ancient Greek statue said to have exceeded 100 feet; Gothic cathedrals; and 14-story buildings in Scotland in the 1600s. Louis Sullivan's 1892 Wainwright Building in St. Louis, Missouri, considered by some the first modern skyscraper, is just ten stories high. Two of the precursors to Sullivan's

LOUIS H. SULLIVAN, 1900. SULLIVANIANA COLLECTION, RYERSON AND BURNHAM ARCHIVES, THE ART INSTITUTE OF CHICAGO 193101.LHS_PORTRAIT_1900



high rise were considered such marvels they were classed among the original wonders of the world.

Yet, important features—other than height—set apart American skyscrapers. They expressed a new kind of universal architecture and were a hymn to the civilization of the common man. Nowhere is this as evident as it is in the work of Sullivan.

Sullivan's notable works include the 1895 Guaranty Building in Buffalo, New York; the 1889 Auditorium

Building in Chicago, which provided for a huge theater, a hotel, and offices, including Sullivan's own; an internationally acclaimed contribution to Chicago's 1893 World's Columbian Exposition; and the 1908 National Farmers' Bank at Owatonna, Minnesota. Sullivan's passion was not just to create tall buildings. He had a philosophical vision powerfully linked to the 19th-century concept of American democracy. According to historian H.S. Commager, Sullivan was "the most philosophical of American architects" who "sought to make architecture a vehicle for democracy." Apart from his buildings, his philosophical mission and influence are durably established by his famous declaration "form ever follows function," which became a modernist credo. It was often interpreted in ways inconsistent with Sullivan's intent, however. He was no slave to utilitarianism in the limited sense embraced by many modernists. Sullivan saw decor as part of a building's utilitarian purpose, which included its function as a social symbol. He reveled in decoration in the art nouveau style, and regarded the skyscraper as an exciting new medium in which to bring past and present together in new ways.

Sullivan's life story offers a tapestry of images illustrating the rise of modern America. Born to immigrant parents in Boston in 1856, with the Civil War looming, he spent his boyhood on his grandparents' New England farm and exploring Boston. After high school, he studied architecture for a year at the Massachusetts Institute of Technology, where his tutors included Victorian Gothic specialist William Ware, before joining an architectural practice in Philadelphia. The Great Depression was under way, and he lost his job. But Chicago was being

rebuilt after its historic fire, and he worked for several months in the Chicago office of steel-frame building pioneer William Jenney, then took a ship to France to further his studies at Paris's École des Beaux-Arts, where he was entranced by the Renaissance masters of fine art and architecture and their new expressions of the human spirit.

By the time he left Europe for a drafting position in Chicago, Sullivan's imagination was afire with the possibilities of blazing new paths, just as Michelangelo had done in the 1500s. In view of this ecclesiastical inspiration, it is interesting that among his first work to attract attention was the interior design for a church, the Moody Tabernacle. Then, he changed jobs, moving to a firm where he soon received a partnership and came into his own. This is as much a tale of philosophical growth as of architecture.

Sullivan's personality represents the restless character of late 19th-century and early 20th-century America. He was an individualist and an autodidact, averse to formal regimes and driven to put his own stamp on things. It was natural that he would be drawn to the writings of British philosopher and science popularizer Herbert Spencer, who provides a key to Sullivan's thought.

A prodigiously influential intellectual, Spencer, like Sullivan, was self-taught, an individual with the determination to create his own, brand-new image of the world out of sheer will and audacity. His best-selling books, including a ten-volume *System of Synthetic Philosophy*, were regarded as the last word on a unified, up-to-date conception of the universe based on evolutionary science. This science was popularly identified with Charles Darwin's *On the Origin of Species* (1859), and Spencer coined

the phrase that many still think of as Darwinism's slogan: "survival of the fittest." Ironically, though, Spencer's work did not represent Darwin's ideas but Jean-Baptiste Lamarck's antiquated version of evolution that Darwin had overthrown. Nevertheless, America received Spencer warmly. His philosophy fueled social Darwinism, a world-view that saw free markets, rugged individuals, and technological innovation as linked evolutionary tools for improving our species by favoring the strong. This concept later shaped the Hoover Administration's belief that economic depressions are nature's way of correcting economic imbalances, an idea that persists today.

In Sullivan's time, America was seen as the cutting edge of Spencer's process of global evolution. New York and Chicago served as outlets for the nation's growing inventive dynamism: brash cities on the make, rich with a sense of history being taken in new directions. This gave Sullivan ample opportunity to combine his practical career ambitions with his hunger to make a grand spiritual statement. Chicago's boom brought him work; Spencer's writings, with those of the poet of democracy, Walt Whitman, fed his philosophical instincts. Architect Frank Lloyd Wright, who worked in Sullivan's firm from 1887 to 1893, later recalled that his employer had strongly encouraged him as a young man to study Herbert Spencer's synthetic philosophy in his spare time.

This background of interests and studies equipped Sullivan to think of himself as creating not just architecture but a new dimension of human experience. It explains why he became so excited about tall buildings as he reviewed emerging technologies. Several enthusiasms fused in his mind: his admiration of Michelangelo's defiance of tradition; Spencer's science-inspired cosmology; Whitman's scripture-like odes to the awakening democratic spirit; and new building-related inventions of interest not only to engineers and technologists looking for solutions

to technical problems, but also to designers seeking ways to enhance the look of cities.

Such unions of philosophy and technology were far from new. Similar thinking had motivated John Roebling (1806–1869), designer of the Brooklyn Bridge. Roebling studied in his native Germany under philosopher G.W.F. Hegel, who espoused a doctrine of evolutionary progress akin to Spencer's, believed in the virtually unlimited power of human intelligence, and regarded history as an unceasing march of improvement whose future lay in America. To Roebling, his wire rope suspension bridge designs were not just engineering assignments but enlargements of the human spirit. Sullivan viewed skyscrapers in much the same light.

Sullivan's partner from 1881 to 1895, Dankmar Adler, played a key part in his early accomplishments. Their teamwork is comparable to that of animated film pioneer Walt Disney and his partner Ubbe Iwerks. Disney was actually an indifferent cartoonist; the more technical side of his studio's formative work was provided by the brilliant Iwerks and other technicians. Disney contributed vision and drive. Sullivan appears to have had a similar relationship with Adler, who had served in the Union Army's Engineer Corps, was an expert on acoustics, and was responsible not only for the engineering details of their projects but also for the practical chores of drumming up business.

Born in Germany, Adler was a towering figure in his own right whose full role is still to be documented. What is known of him shows he was integral to Sullivan's success and a seminal presence in his own right. He helped develop American architecture as a learned profession and his multidisciplinary interests, which blended well with Sullivan's view of the social and philosophical meaning of buildings, foreshadowed 20th-century trends.

It would be inaccurate, therefore, to say that Sullivan originated the skyscraper, or even to give him overriding credit for its absorption into our visual vocabulary. The late 19th and early 20th centuries were decades of explosive vigor in American architecture. So many fertile minds were at work that it would be unrealistic to single out any one individual as preeminent. The skyscraper's evolution was advanced by many inventions that together

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made possible multifloor buildings capable of safely and conveniently housing large numbers of people.

The widespread availability of affordable steel and the development of interlocking steel skeletons gave new flexibility to designers who had been constrained by the limitations of load-bearing masonry. Though experiments with elevators date back to ancient Greek mathematician-inventor Archimedes, Elisha Otis's introduction of safety elevators in 1853, incorporating mechanisms preventing rapid fall, was a breakthrough in making multistory buildings usable for general business and residential purposes. Other relevant innovations were mass-produced windows, plumbing systems, and concrete reinforcement.

Equally as important as the availability of technologies are the flair, boldness, creativity, and charisma with which they are used; these qualities strongly influence the

speed and manner with which they become part of a culture. In these aspects, Sullivan excelled. Though not the engineer Adler was, he more than made up for this by his ingenuity in applying his partner's calculations to design buildings that did more than merely repeat on a bigger scale what previous buildings had done. It is significant that the partnership's early reputation was earned largely in the design of theaters, which require both a high order of scientific precision (excellent acoustics) and a mastery of drama: to fulfill its function, a theater must project showmanship and reflect the sensibility of its society.

These qualities carried over into the firm's skyscrapers. Sullivan's decorative designs were not superficial overlays on his partners structural work. They translated engineering into aesthetics with stark originality and force. They presented a style of their own and an appearance and atmosphere unlike anything previously known. Sullivan's Wainwright Building is a standard-bearer of the skyscraper age not just because of its height, but because its vertically streamlined design was calculated to emphasize so dramatically that height.

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Although the incremental nature of much technological and cultural history makes it risky to identify specific individuals or works as the first of anything, it is much easier to identify champions—people whose skilled advocacy made them pivotal in launching a new age. In this sense, Sullivan was a crucial figure in the birth of the skyscraper era. His structures helped establish a look and atmosphere for American

cities that were as distinctive and as expressive of their society as any architecture that any civilization had ever produced. In Sullivan's hands, the skyscraper became an art form, transforming America's urban skyline into an icon for the world. Its striking visual qualities indelibly imprinted an American character on the international understanding of modernism in urban design.

Nevertheless, in spite of his stature as a prime mover in skyscraper history, Sullivan had a relatively brief period of professional prosperity. An economic downturn in the 1890s hit architects hard, and in 1894 Sullivan and Adler closed their doors. In the following decades, Sullivan struggled to find work. He endured financial ruin, pursuit by creditors, drinking problems and other illnesses, the breakup of his marriage, dingy hotel rooms, and humiliation. Societies to which he belonged cut him off for inability to pay membership fees. Like many strong personalities, he inspired devotion in some while alienating others, often coming across as difficult. He made no secret of his low opinion of some peers, such as Daniel Burnham, with whom he crossed swords publicly when Burnham served as director of the Columbian Exposition. He died destitute in 1924, and his funeral was paid for in part by his old pupil Frank Lloyd Wright.

Despite his hardships, his closing years were not unproductive. Sullivan refined his philosophy and found his voice as a writer. His Farmer's Bank commission, which led to other bank projects and introduced a modern ambience for financial institutions, was triggered by an article he published in 1906 in *American Contractor*, entitled "What is Architecture: A Study of the American People of Today." (The title refers to how Sullivan identified architecture with the condition and direction of the nation.) His "Kindergarten Chats on Architecture" appeared in 1901

and 1902 as a series of articles in the journal *Interstate Architect and Builder*, published in Cleveland, Ohio. Later, they were issued posthumously as a book. Couched as a dialogue between a young architect and his master, the articles present an intriguing picture of Sullivan's thoughts on the need to fashion an American style of architecture.

Sullivan also worked on his autobiography, revealingly called *The Autobiography of an Idea*, and the monograph, which was titled *A System of Architectural Ornament According with a Philosophy of Man's Powers* (both published by the American Institute of Architects the year of his death), and *Democracy: A Man-Search* (published by Wayne State University Press in 1961).

In these writings, Sullivan's fusion of political idealism with architectural concerns is clear. They are as important as his buildings in securing his right to be regarded as a key figure in the emergence of skyscraper theory and design. They have yet to be fully studied for their contributions to the intellectual history of their time, as well as to our understanding of Sullivan's influence on other major figures, such as Wright.

Sullivan's lonely death was followed by an outpouring of belated praise. The *New York Times* named Sullivan "dean of American architects" and critics proclaimed his stature. But even then, it was too soon to see him properly as what he was—not only an architect but a tireless campaigner for the idea that architecture expresses both the civilization that exists and the one we hope to achieve. **UL**

N. J. SLABBERT is U.S. representative of the Belgium-based Truman Group, which focuses on geopolitical and economic analysis for business and government leaders.