Tall Buildings: From Post to Sullivan

1867, George Post, a NY architect: the Equitable Life Insurance Building

the company was founded in 1859; the company needed a new building, more space, and an image:

- had a competition to which they invited 8 architects; received plans from 11; all the designs suggest a Second empire style: very popular after the Civil War for public buildings and businesses:
- mansard roof with dormers, rusticated basement or ground level, strongly articulated layers on the exterior; use of the orders to some degree
- the original proposal was for a complete masonry building but this was too expensive; the company brought in Post who proposed the use of iron framing on the interior
- conservative style with a mansard roof, paired columns, an arcaded balcony, but one prophetic decision for future tall buildings was to treat the two stories above the visual base as a single story with the arcaded windows – creating a deceptive sense of the height of the building, so that it appears to have only 5 stories

1884, William Le Baron Jenney: Home Insurance Building, Chicago

- sometimes called the first skyscraper, although it did not use a true skeletal frame, it was an important step toward the creation of a building with a complete iron skeletal framing system
- structural system consisted of iron columns embedded in the wall, iron lintels which rested on the columns but were not fastened with rivets; the system allowed for flexibility as the building settled but without the masonry piers, the iron members would not have worked; the building has terracotta and brick cladding with historical details
- Jenney was not trying to express the structure or the nature of the internal frame but the system he used in his 10-story building did make it possible to contemplate taller buildings; this was not his last building in Chicago and his structural systems evolved to full metal frames; in the course of this evolution, he trained most of the leading Chicago architects of the late 19th and early 20th century, including Louis Sullivan and Daniel Burnham

Louis Sullivan is one of the first architects who does voice an aesthetic position about the tall building; Sullivan has long been associated with the expression "form follows function" – either Sullivan did not meet this demand or he defined function in ways which are not immediately apparent

The Auditorium Building in Chicago, 1886-9 (Patron: George Peck):
a major turning point for both Sullivan and the evolution of the tall building:

- a multi-use space with an opera house, offices and a hotel
- 11 stories
- the kitchen and dining facilities were located on the roof
- the auditorium used folding ceiling panels and vertical screens so that the seating size could vary from 2500 to 7000
- the acoustics, determined by the use of concentric elliptical arches, were superior, and the arches also functioned as part of the decorative system
- based on Richardson's design for the Marshall Field building – a large block, in this case the building occupies half a city block rather than whole; semicircular arches on the base, rock-faced horizontal ashlar, the articulation of the facade are all based on Richardson's building, although Richardson's is more assertively weight-bearing

The Auditorium building is the place where Sullivan lays out the basic animating antithesis of his buildings: **the conflict or opposition between the austerity of the structural mass and the organic, almost mystical, quality of the ornamentation.** For Sullivan, the ornament provides a connection between the practical program of the building, its more objective character, and the subjectivity of the architect, the architect's personal expression, the architect as a poet. What this means though is that Sullivan's ornament relates to its context, which is the building, in a way that departs from or differs from the notion of "applied" ornament – a fairly traditional and conservative understanding – as well as from the art nouveau system in which the building seems to become the ornament or the ornament becomes the building. Sullivan's ornamental system was most likely an expression of ideas, current at the end of the 19th century, about the

synthesis of the arts, the creation of what was thought of as a “gesamtkunstwerk” or the complete work of art. In the Auditorium building interior, the ornamentation included exposed electric lights which provided a dramatic visual equivalent to the music, and allegorical murals which literally declared that “the utterance of life is a song, the symphony of nature.” The theme of the murals was music and dance (painted by Charles Holloway) and the rhythms of nature (painted by Albert Fleury). In addition to the murals, the building contains allusions to nature in the surface ornament on the arches, in the original stained glass skylights, and reliefs which ran along the soffits of the ceiling arches.

If Sullivan’s ornament, at least in this building, did become a synthesis of the arts, then it also became a panorama expressing the “powers of man.” For Sullivan, this was a democratic expression, democratic in the sense that it was not a personal or idiosyncratic vista, as was the case with art nouveau. It probably fulfilled this message in the eyes of its patron as well. Sullivan was particularly interested in tall buildings, the new skyscrapers, and he called for a clear tripartite division in the tall building, a division which would express its height as well as its repetition of spaces.

Wainwright building, St. Louis (1890)

“If a building is properly designed, one should be able to read through that building to the reason for the building”: Sullivan writes about this as a design strategy in his essay on the Tall building, emphasizing the need to express the particular purpose of each section of the building.

- he increased the necessary number of piers to emphasize the vertical thrust, using ornament to emphasize separations, and emphasizing the cornice. These are not structural decisions so his meaning of function is ultimately a more symbolic meaning.
- the heavy cornice or roof slab is unjustified in terms of structural needs; Wright, who worked in Sullivan's office at the time, did not like it, and Sullivan later omitted it in other buildings
- the decoration of the cornice may be inappropriate and unjustifiable in terms of function, since this is where the mechanical housing of the top floor is located but the cornice is the third part of Sullivan's three-part, classical form.

- the building is actually a u-shape with a light court that cannot be seen from the street, so the building hides part of its functional form
- alternate piers on the facade actually contain a steel column; but they do not look different
- the corner piers, which are heavier than the others, are unnecessary in this type of construction
- Although this was not a radical form for the skyscraper at this time, other Chicago architects were responding more to the picturesque elements of Richardson's work and creating undulating walls. The difference does seem to be a lesson in remaining true to the inherent structure of the building.
- the "block" is the basic element here. Again, he has taken it from Richardson's design of the Marshall Field building in Chicago, retained its essence as a block, but modified it. The elevation of the Wainwright building does assert itself, first of all, as a block, but it is a block which is energized "by an intricate play of forces," both linear and organic. Energized, or brought to life: a constant theme in Sullivan's architecture.
- Sullivan asserts the verticals and horizontals more as metaphor than as the revelation of structure. Each element has a primal architectural identity (pier, spandrel, etc.) which is stronger than what might have been obtained if Sullivan had been more faithful to the true structure.
- interlocking form in Sullivan's expressive system: the spandrels appear as a continuous band running through the piers; the ornament on the cornice is an interlocking geometric design which creates visual richness along with ambiguity, and this rich ambiguity makes the building come alive in another way.
- The ornament, rather than superfluous, intensifies the distinction of parts. Yet, even as he does this, he also achieves something else: the building as a "column" – a base, the shaft and a capital. This idea does become standard for tall buildings, but we should also note that in Sullivan's case, this column retains its sense of an animate or sculptural form.

All the same, if Sullivan did believe that form follows function, this is not a building in which the form reflects a set of previously identified and defined utilitarian needs. But Sullivan's concern was always in the realm of the poetic. In this building and in the Guaranty building (1895), we can either recognize Sullivan as an architect who failed at the goal he set or we can try to understand his mindset as one in which function is not the utilitarian activities which take place inside the building and not, strictly speaking, the structural system of the building, but the goal of articulating and expressing the metaphorical truth of the building.

Carson Pirie Scott (formerly the Schlesinger and Mayer Dept Store (1899).

- A steel frame encased in fireproof ceramic tiles
- the horizontal sweep of the building is emphasized by the unbroken lines on the extended facade
- the corner is articulated with the curved bay which acts like a hinge joining the two sides of the store and the two streets
- what we see on the outside is essentially a reflection of what we see on the inside –

large open spaces which emphasize horizontal expansion, rather than vertical articulation

- Although not a skyscraper or tall building, Sullivan does resolve one of the conflicts which haunts the Wainwright and the Guaranty buildings: a conflict between the classically inspired, tectonic look of the building and the more modern look of those buildings which did embrace the curved facade as a realization of the freedom offered by the steel frame.

The lightened weight at the top, replacing a heavy cornice and entablature with a balcony, contributes to the decreased sense of the tripartite composition. The cast-iron screen at the base, with the foliated carvings, further masked the columnar emphasis Sullivan gave to his other tall buildings. Finally, the curved corner, which does not have the heavy corner piers we saw in the Wainwright or the Guaranty, has displaced the doubling of piers onto slender colonnettes which mark the “hinges” of the wings. This is a move which remained true to Sullivan’s principles of design even as it staked out a more modern position.