

Adler and Sullivan: the Auditorium and the high rise 1886–95

With his entry into teaching, Lethaby shifted his attention from poetic content to the problem of developing the correct method for the evolution of form. Thus, by 1910, he was arguing against poetic self-consciousness:

Building has been and may be an art, imaginative, poetic, even mystic and magic. When poetry and magic are in the people and in the age they will appear in the arts . . . there is not the least good in saying let us build magic buildings.

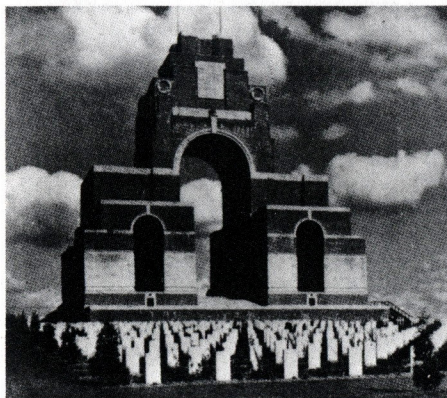
For Lethaby, the tradition of which he had been a part appeared quite suddenly to be played out. The last in a long line of 'Gothic Revival' socialists, he was by the turn of the century arguing for pure functionalism. In 1915, while helping to organize the foundation of the Design and Industries Association, he was urging his colleagues to look to Germany and the Deutsche Werkbund for the way to the future.

As the first waves of the 1914 war broke across Europe, that golden age of dreamlike English country houses, ushered in by Webb, Shaw and Nesfield and rendered at its most exotic in the elaborate *Country Life* creations of Edwin Landseer Lutyens and Gertrude Jekyll, came definitely to a close. Yet this era had effectively ended even earlier, in a spate of large Neo-Georgian houses, built, as Robert Furneaux Jordan has remarked, for 'those aesthetic rich who after the Boer War had beaten their swords into gold shares'. Irrespective of this triumph of Neo-Palladianism in Edwardian

taste — Lutyens's passion after the turn of the century for what he called the 'Wrenaissance' — it is unlikely that the forms and ideals of the English Arts and Crafts movement would have survived the socio-cultural trauma of the first large-scale industrialized war. Something of this can be sensed from the fate of Liberty & Co. after the war, for the holocaust of 1914–18 effectively divided the craft output of the firm like a guillotine. In the space of some five years, the inventive rigour and brilliance of its Art Nouveau silverware gave way to a décor of banal blue china, Tudor furniture and the pastiche production of pseudo-Pre-Raphaelite stained glass. Liberty & Co. were to opt for this degenerated style even in their new premises built in 1924 to the designs of E.T. Hall and E.S. Hall. This half-timbered department store epitomized the so-called 'Stockbroker's Tudor' that in various debased domestic versions was to line the newly built by-passes linking London to the suburban commuter regions that were to become its life's blood.

In the interim, Lutyens, now elevated to the position of being the unofficial 'architect laureate' to the state, found himself suspended in an aftermath that could not even afford the relatively modest luxury of his early country houses, with their small but complex gardens designed by Jekyll (e.g. his Prioresque Tigbourne Court of 1899). As the century advanced, Lutyens's taste for Palladianism, first wittily expressed in his house, Nashdom, of 1905, was to find its estranged fulfilment in the solemnity of his Somme memorial to the British dead, at Thiepval (1924), and in the superannuated monumentality of his masterly Viceroy's House, New Delhi, 1923–31 (ill. 200). In these two brilliant Neo-Classical monuments, Lutyens ruthlessly renounced his Arts and Crafts heritage. It would be hard to imagine anything more removed from Morris's utopian vision than these austere monuments isolated in the midst of flat and alien landscapes. 'Nowhere' was now to be embodied not in Morris's homely revival of the medieval guild, but rather in an arch raised to the memory of a martyred generation, and in a Baroque vista opening onto an empire that was already on the edge of being lost.

30 Lutyens, Thiepval Arch, Picardy, 1924.



I should say that it would be greatly for our aesthetic good if we should refrain entirely from the use of ornament for a period of years; in order that our thought might concentrate acutely upon the production of buildings well formed and comely in the nude. We should thus perforce eschew many undesirable things, and learn by contrast how effective it is to think in a natural, favorable and wholesome way. . . . We shall have learned, however, that ornament is mentally a luxury, not a necessity, for we shall have discerned the limitations as well as the great value of unadorned masses. We have in us romanticism, and feel a craving to express it. We feel intuitively that our strong, athletic, and simple forms will carry with natural ease the raiment of which we dream, and that our buildings thus clad in a garment of poetic imagery, half hid as it were in choice products of loom and mine, will appeal with redoubled power, like a sonorous melody overlaid with harmonious voices.

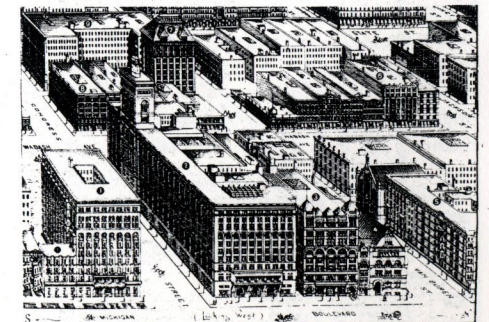
Louis Sullivan
Ornament in Architecture, 1892

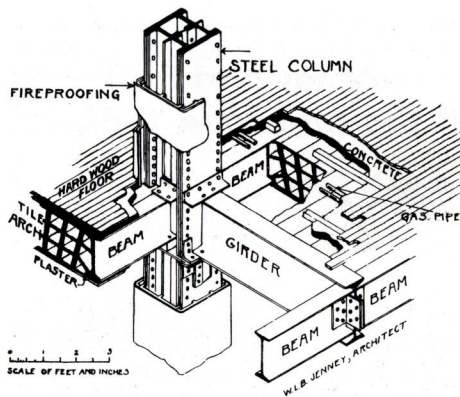
H.H. Richardson's Neo-Romanesque Marshall Field Wholesale Store, begun in 1885 and completed a year after his death in 1887, was the point of departure for the important achievements of the Chicago architectural partnership of Adler and Sullivan. Before joining Dankmar Adler as an assistant in 1879 (he was to become designing partner in 1881), Louis Sullivan had received a somewhat varied education; formally at two prestigious academies, where on each occasion he stayed for something under a year; at MIT in 1872 and then at J.-A.-E. Vaudremer's atelier in the

Ecole des Beaux-Arts, Paris, in 1874. Between these academic forays, Sullivan worked for a year in Frank Furness's office in Philadelphia, a year which was to prove critical to his career, not only because of his experience of Furness's 'Orientalized' Gothic manner—an episode which had an enduring effect on his own approach to ornament—but also because he met the young intellectual architect John Edelman, who introduced him, after 1875, to the Chicago architectural establishment—first to William Le Baron Jenney, later to become the pioneer of steel frame construction in his Fair Store of 1892, and then to Dankmar Adler. Edelman's unusual cultivation, including his anarcho-socialist views, derived from Morris and Kropotkin, exercised an influence over Sullivan's theoretical development, evidenced in the latter's *Kindergarten Chats* of 1901.

During the early years of their careers, Adler and Sullivan were preoccupied with meeting the urgent demands of a booming Chicago, then in the process of being rebuilt as the Mid-western capital after its destruction by fire in 1871. In the later 1870s, while Adler was still

31 Chicago, 1898: view from Michigan Boulevard westwards. In the centre (no. 2) is the Auditorium Building (see ill. 33).





32 Jenney, Fair Store, Chicago, 1890–91. Detail of fireproof steel-frame construction.

establishing his practice, Sullivan worked for Jenney, thereby becoming familiar with the technical aspects of Chicago construction. In his 1926 essay, *The Autobiography of an Idea*, Sullivan wrote of the powerful forces that led to this method of building.

The tall commercial building arose from the pressure of land prices, the land prices from pressure of population, the pressure of population from external pressure. . . . But an office building could not rise above stairway height without a means of vertical transportation. Thus pressure was brought on the brain of the mechanical engineer, whose creative imagination and industry brought forth the passenger elevator. . . . But it was inherent in the nature of masonry construction to fix a new limit of height; as its ever-thickening walls ate up ground and floor space of ever-increasing price, as the pressure of population rapidly increased. . . . [This] Chicago activity in erecting high buildings finally attracted the attention of the local sales managers of Eastern rolling mills; and their engineers were set to work. The mills for some time past had been rolling those structural shapes that had long been in use in bridge work. Their own ground work was thus prepared. It was a matter of vision in salesmanship based upon engineering imagination and technique. Thus, the idea of a steel frame which should carry all the load was

tentatively presented to Chicago architects . . . the trick was turned; and there swiftly came into being something new under the sun. . . . The architects of Chicago welcomed the steel frame and did something with it. The architects of the East were appalled by it and could make no contribution to it.

As Sullivan indicated, the Chicago architects of the 1880s had no choice but to master advanced modes of construction if they wanted to remain in practice; and while the great fire had demonstrated the vulnerability of cast-iron, the subsequent development of the fireproof steel frame – with its ability to provide multi-storey rentable space – enabled speculators to develop downtown sites to the absolute optimum. The contemporary critic Montgomery Schuyler remarked in 1899, ‘the elevator doubled the height of the office building and the steel frame doubled it again’.

Before 1886, Adler and Sullivan were occupied primarily with small office structures, warehouses and department stores, a commercial practice that was varied from time to time by residential commissions. These early buildings, limited to about six floors, afforded little scope, except for the expression of the frame, be it in iron, masonry or a mixture of the two, and one could do little save manipulate the Classical division of the façade into base, middle and top.

All this was changed in 1886 by the commission to design the Auditorium Building, a structure whose overall contribution to Chicago culture was to be as much technological as conceptual. The basic arrangement of this multi-use complex was exemplary. The architects had been asked to install, within a half-block of the Chicago grid, a large modern opera house flanked on two sides by eleven storeys of accommodation, to be given over in part to offices and in part to a hotel. Their unique organization of this brief incorporated such innovations as locating the hotel kitchen and dining facilities on the roof so that the fumes would not disturb the residents. At the same time the auditorium itself offered plenty of scope for Adler’s technological imagination. He met the demands for a variable capacity by

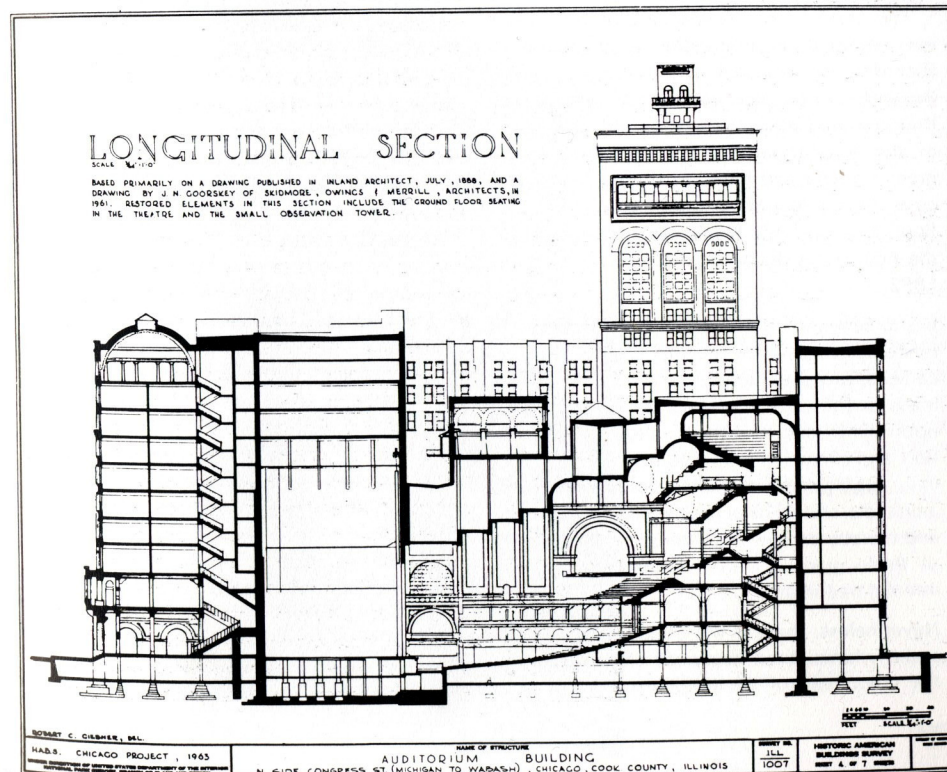
using folding ceiling panels and vertical screens which could vary the auditorium from a concert size of 2,500 to a convention capacity of 7,000. The client’s faith in Adler’s technical ability finds some reflection in Adler’s own description of the hall:

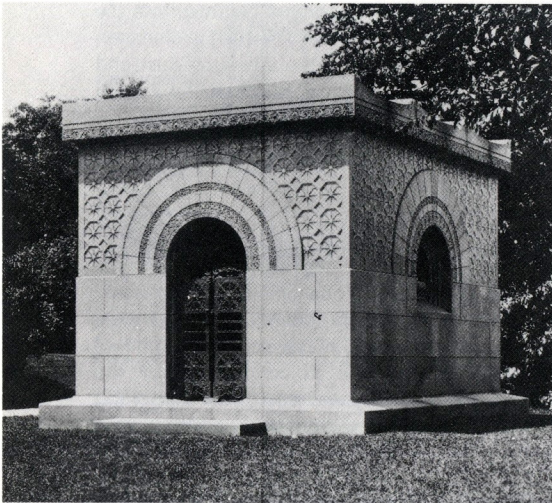
The architectural and decorative forms found in the auditorium are unconventional in the extreme and are determined to a great extent by the acoustic effects to be attained. . . . A series of concentric elliptical arches effect the lateral and vertical expansion of sound from the proscenium opening to the body of the house. The soffits and faces of these elliptical surfaces are ornamented in relief, the incandescent electric lamps and . . . inlet openings of the ventilating system forming an essential effective part of the decoration. . . . Much attention has been paid to the heating, cooling and ventilating apparatus. Fresh air, taken

from the top of the building, is forced into the house by a fan . . . 10 feet [3 metres] in diameter. . . . This washes from the air much dust and soot. . . . A system of ducts carries the air into different parts of the auditorium, . . . stage, . . . corridor foyers and dressing-rooms. The general movement of air is from the stage outward and from the ceiling downward. . . . Ducts are carried to . . . exhaust fans from openings in the risers of all the steppings for the seats.

Adler was possibly one of the last architect-engineers to prove his competence over a wide technical range. He mastered a multitude of difficulties, from the air-conditioning of the auditorium to the trussed steel girder supporting its acoustical interior; from the accommodation of a complex revolving stage to the provision of extensive foyers to both the opera house and the hotel. The whole complex was housed in a massive masonry and iron structure, ingeniously

33 Adler and Sullivan, Auditorium Building, Chicago, 1887–89. Longitudinal section through the stage and auditorium.





34 Sullivan, Getty tomb, Graceland cemetery, Chicago, 1890.

ballasted during construction so as to compensate for the differential loading of its foundations.

The aesthetic of this eleven-storey complex was based on an attenuation of the syntax of Richardson's Marshall Field Store. Where Richardson had used rusticated stone blocks throughout, Sullivan varied the facing material of the Auditorium Building to modulate its greater height and mass, changing from rusticated blocks to smooth ashlar above the third floor. However, the bleakness and austerity of the final result dismayed Adler, who wrote in 1892:

It is to be regretted that the severe simplicity... rendered necessary by the financial policy of the earlier days of the enterprise, the deep impression made by Richardson's 'Marshall Field Building' upon the Directors of the Auditorium Association, and a reaction from a course of indulgence in... highly decorative effects on the part of its architects, should have happened to coincide... and thereby deprive the exterior of the building of those graces... so characteristic of its internal treatment.

Nevertheless, there is something forceful, taut and rhythmic about its overall character, while the colonnade of the hotel verandah on the

lake front is echoed by similar delicate motifs in the tower. The slight hint of Orientalism in this verandah anticipates the decidedly Turkish feeling of the Charnley House in Chicago that Sullivan was to design in 1892, in close collaboration with his assistant Frank Lloyd Wright.

Richardson was to remain the ultimate determinant of Sullivan's early style. In Sullivan's hands Richardson's finely modulated use of the Romanesque became brutally simplified into an almost Neo-Classical manner, which was first developed in his Walker Warehouse of 1888 and in his Dooly Block of 1890. These were surely those buildings, 'well formed and comely in the nude', to which he referred in *Ornament in Architecture* of 1892. From now on Sullivan's delimitation of mass depended on pronounced string-courses and projecting cornices. Fenestration is grouped in elongated arcades, while smooth, flush façades are articulated by taut decorative episodes. The Getty and Wainwright tombs, designed in 1890 and 1892, epitomize the consolidation and refinement of this approach, which was rendered on a large scale in the Wainwright Building, completed in St Louis, Missouri, in 1891. As in the work of the Viennese architect Otto Wagner, the basic austerity of Sullivan's stereometric structures was in opposition to the ornamentation by which they were enriched and articulated. Yet, in contrast to Wagner's flowing ornament, there is always something decidedly Islamic about Sullivan's disposition of decoration. Even where his ornament is not intrinsically geometric it is almost always contained by geometric form. In this recourse to the aesthetic and even the symbolic content of the East, Sullivan sought to reconcile that schism in Western culture between the intellectual and the emotional, poles which he was to associate later with the Greek and the Gothic. Between the Auditorium and the Wainwright Building, the character of Sullivan's ornament alternates from being organically free to conforming to the outline of a precise geometry. In the Transportation Building for the Chicago World's Columbian Exposition of 1893, it becomes predominantly geometric, or, where free, strictly contained within a geometric grid. As Frank

Lloyd Wright wrote in his book, *Genius and the Mobocracy* (1949), this 'crystallization' finally arrived at its definitive form in Sullivan's Guaranty Building at Buffalo, New York, of 1895.

Neither Sullivan nor Jenney can be credited with the invention of the skyscraper, if by that term one simply means a multi-storey structure of great height, since such heights had already been achieved in load-bearing brick just prior to Sullivan's Wainwright structure, most notably in Burnham and Root's sixteen-storey Monadnock Block, Chicago (1889-92). Sullivan, however, may be credited with the evolution of an architectural language appropriate to the high-rise frame. The Wainwright Building is the first statement of this syntax, in which the

suppression of the transom already evident in Richardson's Marshall Field Warehouse is taken to its logical conclusion. The façade, no longer arcaded, is articulated by gridded piers, clad in brick, while transoms are recessed and faced in terracotta so as to fuse with the fenestration. The piers rise out of a taut two-storey stone base and terminate abruptly at a massive and ornate terracotta cornice. Four years later Sullivan refined this expressive formula in his second masterwork, the Guaranty Building.

The Guaranty Building is Sullivan at the height of his powers: it is without doubt the fullest realization of the principles that he outlined in his essay of 1896, *The Tall Office Building Artistically Considered*. In this thirteen-



35 Adler and Sullivan, Guaranty Building, Buffalo, 1895.