# Chapter 16

I.   THE RISE OF THE METROPOLIS: URBANISM AND THE NEW SCALE OF ARCHITECTURE

During the boom periods of industrial development, the cities of Europe and America grew beyond recognition. As cities grew higher and wider, comprehensive planning and social services were required.

A.   Haussmann's Paris: The Dawn of the Technocrat
   1.   By mid-century, Paris commanded the center of attention with the most dramatic urban changes.
      a.   The planning process began to widen and straighten streets.
      b.   Architects refined the form of institutional buildings.
      c.   Engineers increased the city's water and sewerage capacity.
   2.   Napoleon III appointed the resourceful technocrat Georges-Eugène Haussmann as the all-powerful prefect of the Seine.
      a.   Together they accomplished an unprecedented urban renovation.
         i.   Haussmann proposed "surgical" interventions involving costly expropriations and massive demolitions to obtain a healthy ensemble of level paved streets, perfectly aligned apartment buildings, asphalt sidewalks, underground water mains, sewers, gas lights, and street trees.
            1.   New Hotel Dieu hospital and the central police station
            2.   First substantial case of urban gentrification
            3.   140 km of aqueducts and a major network of sewers
            4.   Parc des Buttes-Chaumont
         ii.   There were political motives for carving broad boulevards across the eastern districts of Paris, where rioting and barricades were a popular tradition.
      b.   Napoleon III and Haussmann aspired to architectural greatness; they drew from two camps of an architectural debate.
         i.   Great restoration expert Viollet-le-Duc: favored structural honesty
         ii.   Studio masters of the École des Beaux-Arts: favored classical composition and fanciful ornament, as exemplified by Louis-Tullius-Joachim Visconti's Louvre-Tuileries palace
   3.   Napoleon III endorsed liberal, secular culture: he favored the new *Opéra*, rather than a church, a palace, or a triumphal arch, to represent his regime.
   4.   The gentrified city generated a popular backlash: revolutionaries torched many monuments of Second Empire power.

B.   The *Ringstrasse* and the Linear Grid: Tearing Down the Walls of European Cities
   1.   The replanning of Vienna, capital city of the Habsburg Empire, was as influential as Paris.
      a.   Austrian planners developed the *Ringstrasse* area for blocks of bourgeois apartments and as sites for modern institutions.
      b.   Strapped a belt of modernity between the city's historic core and its industrial periphery
      c.   Partly motivated by defense strategies
   2.   The Votivkirche was the first in the parade of new public buildings.
   3.   Construction began on the rest of the *Ringstrasse*'s two dozen institutional structures in the 1870s.
      a.   The planners chose a distinct style from the historical repertoire for each building to convey subliminal information about their functions.

   b. The urban planner Camillo Sitte found the *Ringstrasse* lacking in human scale and urban beauty.
  4. Barcelona likewise tore down its walls in 1858 but encouraged a much more comprehensive plan.
   a. Ildefonso Cerdá proposed an immense linear grid as a coordinated enlargement, or *Ensanche*, added to the historic core.
  5. In Italy, which achieved national unification by the mid-1860s, urbanism became a major consideration.
   a. Giuseppe Poggi created Italy's first comprehensive master plan for Florence. Plans to demolish wide swaths of the city center and to rebuild the Mercato Vecchio district represented unrestrained gentrification.
   b. Rome's walls were maintained almost completely intact.
    i. Alessandro Viviani immediately prepared a master plan.
    ii. The planners suggested *diradimento*, or weeding.

C. The Instant American Metropolis: New York versus Chicago
  1. American cities possessed almost no historical constraints. They bypassed questions of architectural tradition with pure expressions of technique and unrestricted scale.
  2. New York and Chicago fed on each other's success while developing a strong architectural rivalry.
   a. New York architects consistently acknowledged European heritage while using new technologies to achieve ungainly heights.
   b. Chicago architects remained less conscious of historical sources, developing a more direct expression of construction as an alternative, "American" style.
  3. By the end of the 19th century, the island of Manhattan was the densest city in the world.
   a. The 1811 Commissioners' Plan, a uniform grid of oblong blocks.
   b. Central Park, designed in 1857 by Frederick Law Olmsted and Calvert Vaux.
  4. From 1861 to 1865 the Civil War held American urban development in check.
   a. The liberation of over 4 million African-American slaves meant a great migration to New York and Chicago that began in the 1890s.
  5. The Union victory in 1865 stimulated the productivity of the northern metropolises.
   a. The very wealthy built enormous mansions on Fifth Avenue above 42nd Street.
   b. McKim, Mead & White built the Villard Houses on Madison Avenue.
   c. Middle-class commuters initially spread across the East River to the neighboring city of Brooklyn.
    i. Brooklyn Bridge
    ii. Grand Central Terminal
  6. In Chicago, one reached the sixty-block Loop district, by elevated rail.
   a. Oak Park
   b. Suburb of Riverside
   c. One of Chicago's suburbs, Pullman, became the country's most admired company town.
  7. As New York and Chicago expanded laterally toward the suburbs, their downtowns took off in the vertical dimension.
   a. The safety elevator
   b. New York broke beyond the six-story norm with several belfry-like towers.
   c. The eastern edge of City Hall Square attracted three of the most ostentatious examples.

8. The Great Fire of 1871 in Chicago consumed a third of the city's mostly wooden structures.
9. New tall buildings in Chicago were designed as solid, fireproof volumes with scant reference to European styles of decoration.
    a. Leiter Store
    b. Marshall Field Wholesale Store
    c. 16-story Monadnock Building
    d. 15-story Reliance Building
10. Louis Sullivan coined the term "skyscrapers.
11. He coined a new statement of tectonic purity, where "form ever follows function."
12. During the economic crisis of 1893, however, the city planning department imposed a ten-story height limit, which kept Chicago out of the race with New York.
    a. Chicago architects had to go to New York: in 1903, Burnham's office produced the twenty-three-story Fuller Building, known as the Flatiron Building because of its wedge shape.
13. Cass Gilbert's Woolworth Building of 1913 remained the world's tallest office building for nearly two decades.

II. LIFE STYLES AND HOUSE FORM: APARTMENTS, ROW HOUSES, BUNGALOWS, AND UTOPIAS

The apartment type, a five- to six-story structure with several family dwellings on each floor, appeared in Europe during the 18th century. The social upheavals that accompanied industrialization inspired a variety of utopian alternatives to house form.
   A. Vertical Living: The Apartment Block
      1. The modern apartment building emerged amid the crowded housing circumstances of 18th-century Paris: the model for the apartment building may have descended from Versailles.
      2. *Maison de rapport* corresponded to the new rituals of polite society.
         a. "Salon" for music, reading, and gossip
         b. Regularly spaced tall windows
         c. Kitchen with pantry and two or three bedrooms
         d. *Degagements* for bathrooms
         e. Four or five chimney flues
      3. As one's status on the social scale diminished, so did the number of rooms in one's apartment.
         a. Worker housing designed by Auguste Labussière provided entries from a large internal courtyard to reduce the feeling of overcrowding.
      4. Parisian apartment buildings frequently consumed an entire city block.
         a. Mansart's unified elevations at Place Vendôme provided an influential model.
      5. In Vienna, the *Ringstrasse* district followed similar criteria.
         a. The *mietpalast* fit into large unified blocks that looked like independent palaces with luxurious facades.
         b. Theophilius Hansen devised the *Gruppenzinhuis*, an integral city block with domes marking the corners of the central zone. It could be subdivided into separately owned multi-unit properties.
      6. Apartment blocks became the basic unit for the substantial expansion of late-19th-century Berlin, following the Hobrecht Plan of 1858–1862.
         a. No restrictions on density—the blocks filled up with a multitude of inner courts; and rear courts quickly degenerated into overcrowded slums.
      7. In Manhattan, apartments began to replace row houses in the 1870s.
         a. The Dakota
         b. Series of residence hotels, like The Ansonia, for seasonal lodging

       c.    A few residence hotels were built specifically for the poor, like the Mills House.

    8.    The mass of poor folk in industrial cities around the world lived in crowded tenements, multiple-story walk-up flats.

       a.    New York's 1879 Tenement House Act attempted to legislate that buildings have more exposure to light and air, creating what was known as the "Dumbbell" scheme.

B.    Lateral Options: Row Houses

    1.    The row, or terrace, house emerged in English-speaking countries and parts of northern Europe as the alternative to vertically stacked apartments.

    2.    In 1900, 87 percent of the British population lived in row houses, and in the first important American colonial cities, such as Boston and Philadelphia, they were the dominant dwelling type.

    3.    The modern version of the terrace-house type conformed to different standards after the great fire of London in 1666.

    4.    Nicholas Barbon developed several hundred row houses.

       a.    His widely circulated books laid out the principles of laissez-faire economics, emphasizing that building industry stimulates the economy.

       b.    Barbon's typical unit stood three bays wide and four stories high with access to a small backyard garden.

    5.    The architectural handbooks of William Halfpenny and Batty Langley, published in the early 18th century, encouraged the standardization of house building in London.

       a.    Entire streets developed by a single speculative builder and lined with nearly identical terrace houses.

       b.    London expanded in patches from the sequential subdividing of aristocratic estates.

          i.    Bedford Square and Bloomsbury Square.

          ii.    In mid-19th century London, the contractor Thomas Cubitt built the most important row houses.

              1.    Belgravia

       c.    Row houses of London's poor were densely packed without rear gardens and lacked light and air.

    6.    Titus Salt attempted to improve the conditions for workers at Saltaire. This early company town offered a more hygienic and sober environment for the employees at his new alpaca weaving factory.

C.    The Detached Single-Family House: Villas and Bungalows

    1.    During the late 19th century, in the industrial cities, the extended family became increasingly less practical.

       a.    Moral imperative for detached dwellings surrounded by gardens away from the city. The Anglo-American suburbs that sprang up near the new train lines were typically filled with villas and bungalows.

          i.    The poorest members of European society usually lived on the urban fringes. The *Terrains vagues* surrounding Paris abounded with shanty dwellings.

          ii.    In London during the 1790s, the first upper-middle-class suburb for nuclear families at Clapham Common.

              1.    Pioneered the trend of class segregation

          iii.    The earliest English suburbs followed the architectural examples of John Nash's Park Villages.

              1.    Eastern and western edges of Regent's Park in London

2. Gothic villas became fashionable
3. Victoria Park
4. Bedford Park
    iv. The moral premise of the British detached dwelling influenced house building in the United States, Canada, Australia, and New Zealand.
3. Americans already had the ideals of Puritan villages and William Penn's "green country town" as precedents.
4. Llewellyn Park
    a. McKim and White. Charles McKim and his future partner Stanford White had both worked at different stages in the New York office of Henry Hobson Richardson, the most influential American architect of the late 19th century.
        i. William Watts Sherman House in Newport, Rhode Island
        ii. Dozens of patrician villas in the shingle style, including the William G. Low House of 1886

D. The Utopian Challenge: Collectivist Alternatives
1. The 19th-century metropolis disrupted the social fabric of urban life.
    a. Speed of modern transport, pollution of coal-burning factories, glaring class differences.
2. Socialists advocated collectivizing human needs, especially housing.
    a. Robert Owen (1771–1858), factory owner
        i. Company town of New Lanark, Scotland
    b. Charles Fourier
    c. Karl Marx and Friedrich Engels published the *Communist Manifesto*, urging the working class to rise up.
    d. Edward Bellamy
        i. *Looking Backward*
3. Utopian socialism usually involved some notion of collective housing.
    a. Thomas More's *Utopia*
    b. Owen published his first treatise on socialism in 1817 and eight years later organized the socialist colony of New Harmony in Indiana.
        i. Stedman Whitwell drew the plan; the community disbanded after four years.
    c. Fourier's project for socialism, first published in 1808, called for the formation of like-minded groups to work together as a "phalanx."
        i. His social ideals of a harmoniously integrated cooperative society strongly appealed to idealistic Americans before the Civil War.
        ii. Dozens of phalanxes cropped up at mid-century. The Brook Farm, in West Roxbury MA, lasted six years.
        iii. Jean-Baptiste André Godin established the most successful Fourierite community: the Familstère, which had a certain Panoptic quality.
            1. "The social progress of the masses is subordinated to the progress of the social provisions of architecture" became central to architectural theory in the early 20th century.
    d. King Camp Gillette (1855–1932), proposed a more ambitious utopian settlement, *The Human Drift*.
        i. He was convinced that form determined behavior, a utopian premise that influenced many housing projects of the next century.

iii. THE BEAUX-ARTS: ECLECTICISM AND PROFESSIONALISM

Almost every major public building in 19th-century France showed the influence of the École des Beaux-Arts. The school taught the principles of classical architecture, favoring symmetrical composition in plan and façade, rational layouts for circulation, and the clear expression of the hierarchy of functions.

    A. Beaux-Arts Eclecticism: Something for Everyone
        1. The Royal Academy reappeared in 1819 as the École des Beaux Arts during the restoration of the monarchy.
            a. Resuscitated the *atelier* system
            b. The Beaux-Arts method began with the concept of the *parti*, the basic organizing principles of circulation and room layouts.
            c. In addition to this commitment to compositional order, the major contribution of Beaux-Art design concerned the creation of appropriate style and decoration.
        2. In 1863 Viollet-le-Duc attempted to reform its curriculum.
            a. Objected to classical style and the atelier system.
            b. Viollet-le-Duc's theories helped to destabilize the orthodoxy of classicism.
        3. Julien Guadet popularized canonical buildings as "everything which has remained victorious in the struggle of the arts, everything that continues to arouse universal admiration."
            a. Guadet endorsed eclecticism as the combination of the best aspects of different styles into a contemporary style.
            b. The design of the Beaux-Arts school buildings illustrated the evolving eclecticism of the times.
                i. Félix Duban (1797–1870) began rebuilding the school in 1832.
        4. The eclecticism of Beaux-Arts graduates led to creative combinations, rather than classical rigor.
            a. The façade of the Palais des Beaux-Arts in Lille
            b. The new cathedral in Marseilles
            c. Sacré Coeur
                i. Covered an ancient gypsum quarry used by the Communards as an arms deposit.
        5. Beaux-Arts eclecticism spread beyond France.
            a. The monument in Rome to Italy's first king, Victor Emanuel II, the Vittoriano
            b. The Bayreuth opera house in Munich
            c. Neuschwanstein, also built by Ludwig II
            d. The Palace of Justice in Brussels
        6. Eclectic architects attempted to make something new from something old.

    B. The American Renaissance
        1. America's unparalleled wealth led to a flourishing of high-style architectural patronage, frequently called the American Renaissance.
            a. Dispatched Beaux-Arts-trained architects to reproduce the glories of the Old World in such unlikely settings as uptown Manhattan and rural North Carolina.
        2. Richard Morris Hunt was the first American trained at the Beaux-Arts in the 1840s.
            a. Designed the first French-inspired apartment buildings, and at the end of his career the cavernous vaulted halls of the Metropolitan Museum.
            b. Also designed several Fifth Avenue mansions, the Breakers in Newport, and, grandest of all, the Biltmore, in Asheville, North Carolina.
                i. The Biltmore rivals the delusions of grandeur produced for Ludwig II in Bavaria.
                ii. Square platform for the Statue of Liberty

3. Hunt's studio at one time included the Philadelphia architect Frank Furness.
   a. While grounded in the rational planning principles of his master, he explored a language of truly disquieting hybrids. The Pennsylvania Academy of Fine Arts is an example of this hybridization.
4. Henry Hobson Richardson (1838–1886) improved on Furness's attempt to transform medieval European motifs into a uniquely American style.
   a. Ames Gate Lodge in North Easton, Massachusetts
   b. Trinity Church in Boston
   c. Polychromatic use of rough stone as an expression of America's own mineral resources.
   d. Throughout the Midwestern states, one finds late-19th-century county courthouses, universities, and churches that aspired to Richardsonian Romanesque.
5. Richardson's studio employed all three partners of McKim, Mead & White, the major Beaux-Arts practice in late-19th-century America.
   a. The office completed more than 900 projects, including the Boston Public Library.
   b. Joined six other Beaux-Arts firms to create the classical vision of "White City," at the 1893 World's Columbian Exposition in Chicago.
      i. Daniel Burnham (1846–1912) coordinated the master plan following a campus design by Frederick Law Olmsted.
      ii. The White City in Chicago not only referred to the color of the buildings but also to race.
      iii. The Court of Honor came as the climax of evolutionary progress.
      iv. Japan sponsored the Ho-o-den Temple, which exerted a profound influence on the interior space and wooden details of Frank Lloyd Wright.
6. Daniel Burnham emerged as America's major architectural protagonist after the 1893 Fair.
   a. His coordination of landscape, infrastructure, and façades at the Chicago Fair inspired the City Beautiful Movement among citizens' groups and planners.
      i. The 1901 McMillan Plan for Washington, DC
      ii. The 1907 Civic Center for San Francisco
      iii. A Parisian-style plan for Chicago in 1909
   b. His firm tended to wrap the instruments of technical progress in classical attire.
   c. He developed the plans for the United States' first colonial adventure in the Philippine Islands.