

Landmarks Preservation Commission
September 23, 1980, Designation List 137
LP-1099

GRAND CENTRAL TERMINAL INTERIOR, main concourse level interior consisting of the 42nd Street entrance passageway leading to the waiting room, the waiting room up to and including the ceiling, the ramp connecting the waiting room and the main concourse, the main concourse up to and including the ceiling and including the surrounding balconies, the staircase leading to the Vanderbilt Avenue entrance, the area connecting the main concourse and the incoming station concourse, the incoming station concourse, the Graybar passageway, the ramp leading from the main concourse to Vanderbilt Avenue, the ramp parallel to the Vanderbilt Avenue ramp and leading to the subway, the ramp which intersects the two above ramps and leads to the lower concourse level, the ramp at the eastern end of the main concourse leading to 42nd Street, the ramps running parallel to the above ramp and leading to the lower concourse level, the ramp which intersects the three above ramps and leads to the lower concourse level; the lower concourse level interior consisting of the Oyster Bar Restaurant (excluding the saloon), the ramp leading from the Oyster Bar Restaurant to the lower concourse, the area of the lower concourse beneath the main concourse; and the fixtures and interior components of these spaces, including but not limited to, wall and ceiling surfaces, floor surfaces, doors, windows, lighting fixtures, murals, sculptures, panels, railings, grilles, sign boards, and signs; 42nd Street at Park Avenue, Borough of Manhattan. Built 1903-1913; architects Reed & Stem and Warren & Wetmore.

Landmark Site: Borough of Manhattan Tax Map Block 1280, Lot 1 and 60 in part; Tax Map Block 1278, Lot 20 in part; and an area beneath Vanderbilt Avenue between 43rd and 44th Streets.

On September 11, 1979, the Landmarks Preservation Commission held a public hearing on the proposed designation as an Interior Landmark of the Grand Central Terminal Interior, main concourse level interior consisting of the 42nd Street entrance passageway leading to the waiting room, the waiting room up to and including the ceiling, the ramp connecting the waiting room and the main concourse, the main concourse up to and including the ceiling and including the surrounding balconies, the staircase leading to the Vanderbilt Avenue entrance, the area connecting the main concourse and the incoming station concourse, the incoming station concourse, the Graybar passageway, the ramp leading from the main concourse to Vanderbilt Avenue, the ramp parallel to the Vanderbilt Avenue ramp and leading to the subway, the ramp which intersects the two above ramps and leads to the lower concourse level, the ramp at the eastern end of the main concourse leading to 42nd Street, the ramps running parallel to the above ramp and leading to the lower concourse level, the ramp which intersects the three above ramps and leads to the lower concourse level; the lower concourse level interior consisting of the Oyster Bar Restaurant (excluding the saloon), the ramp leading from the Oyster Bar Restaurant to the lower concourse, the area of the lower concourse beneath the main concourse; and the fixtures and interior components of these spaces, including but not limited to, wall and ceiling surfaces, floor surfaces, doors, windows, lighting fixtures, murals, sculptures, panels, railings, grilles, sign boards, and signs; and the proposed designation of the related Landmark Site (Item No. 13). The hearing had been duly advertised in accordance with the provisions of law. One witness spoke in favor of designation. There were no speakers in opposition to designation. Letters have been received supporting designation. The Metropolitan Transportation Authority has expressed reservations about the designation.

DESCRIPTION AND ANALYSIS

Well before Grand Central Terminal was officially opened on February 2, 1913, and the citizens of New York first viewed its imposing interiors, Grand Central had become the object of international admiration. In European as well as American publications, the architectural beauty of the building had been praised, its advanced engineering and fine planning, acclaimed. Many have since echoed those sentiments. The Terminal has been recognized moreover as an epochal transportation complex, a civic center, and catalyst to healthy urban development. Nearly half a million people pass through Grand Central every day, each benefiting from the superb qualities which have sustained this venerable monument through its near 70-year history. The interiors of Grand Central are among the finest Beaux-Arts conceptions not only in the United States, but in the world, and have been recognized as such by not only architectural historians and critics, architects and city planners, but even the most hardened daily commuter. Grand Central belongs to an era "blessed with a sense of civic excess."¹ Its historic significance should not be underestimated; its continuing contribution to New York City cannot be undervalued.

History

The Grand Central Terminal we see today represents the culmination of the 19th century development of the rail transportation in New York. The New York & Harlem Railroad, incorporated in 1831, was the first rail line to serve the city, and was later joined by the New York & New Haven Railroad, the Hudson River Railroad and New York Central Railroad.² From its very inception, rail transportation within New York City had caused controversy. Steam locomotives were unwelcome; they were dirty, noisy, and spouted cinders which made fire a constant threat, and were dangerous to pedestrian and horse-drawn traffic. The value of property bordering railroad tracks was, in consequence, adversely affected. Public pressure forced the railroad companies to haul railroad cars with horses for increasing distances within the city, while steam locomotives were on a constant retreat uptown. All locomotives were banned south of 42nd Street by 1858.

By the early 1860s, it had become apparent that the organization of New York's rail system was in need of complete restructuring. The man who undertook this challenge was Commodore Cornelius Vanderbilt (1794-1877), patriarch of one of America's wealthiest family dynasties. The Commodore amassed a huge fortune in the shipping industry, and nearing his seventieth year, turned his attention to railroad investments with the same aggressiveness that had characterized his earlier career. Between 1863 and 1867 he acquired control of the New York & Harlem, the Hudson River and the New York Central Railroads. On November 1, 1869, he formally consolidated the three as the New York Central & Hudson River Railroad.³ This was the basis upon which the Commodore and his eldest son, William H. Vanderbilt (1821-1885), were to build a transcontinental railroad empire of enormous wealth and power.

Under Vanderbilt direction, it was determined that the three separate rail lines, which all entered Manhattan from the north, should be funneled together and use a single (the Harlem) line for five miles, south from Mott Haven in the Bronx, to 42nd Street. A new terminal station and rail yard were to be built between 42nd and 48th Streets, Lexington and Madison Avenues, roughly half the land occupied by the present Grand Central complex. The necessary land was purchased, city approval granted, and work commenced.

The Grand Central Depot, built between 1869 and 1871, was comprised of an L-shaped station of the "head-house" type,⁴ with the main facade on 42nd Street, and behind, a vast train shed containing the track platforms. The Depot building, designed by John B. Snook, a successful Manhattan architect, in association with the engineer Isaac C. Buckhout, contained separate waiting rooms for each of the three railroads, as well as offices in the upper stories. Constructed in red pressed brick with cast-iron trim, the building was an unexceptional example of the American Second Empire Style.

The huge 530-foot long train shed, constructed as a single glass and metal arch-ribbed vault was designed by R.G. Hatfield (1815-1879), a prominent Brooklyn architect and engineer. Brick exterior walls buttressed 30 hemispherical wrought-iron Howe trusses which were infilled with delicate tracery work. Enclosed by screens of corrugated iron with glass monitors, the shed sheltered five train platforms and twelve tracks, and was impressive, not only for its size, but for the powerful simplicity of its design.

A giant train yard, just north of the shed, although necessary for the maintenance and storage of railroad cars, interrupted the city street system for over ten square blocks. Furthermore, the tracks leading north, just beyond the yard, from 56th to 68th Streets, were laid at street level. They then passed through a cut in solid rock up to 96th Street, from whence they continued atop a raised masonry viaduct. While little could be done to ameliorate the conditions caused by the train yard, which in addition to severing the city grid plan was also a dirty, smoky eyesore,⁵ the train route through upper Manhattan could be improved. The Fourth Avenue Improvement Scheme, jointly financed by the railroad and the city, was initiated in 1872. Fourth Avenue had been officially renamed Park Avenue in the same year, but only as far north as the Grand Central Depot.⁶ The Improvement Scheme was in a sense, an attempt to make the new name suitable to the upper section of the Avenue. Isaac C. Buckhout, the Harlem Railroad's chief engineer, in association with several other engineers, began the renovation by lowering the tracks beneath street level from the station to 56th Street. Bridges for both pedestrian and vehicular traffic were erected. A tunnel was constructed from 56th to 96th Streets, and the tunnel roofing covered by block long landscaped strips. These little plots of "park" by necessity contained ventilators from which the smoke and cinders of the locomotives escaped.

A series of improvements and enlargements of Grand Central followed, but by 1898, the Depot building had become inadequate. Extensive alterations were made under the direction of Bradford Lee Gilbert (1835-1911), the architect who had designed the first true skyscraper in New York, the Tower Building of 1888-1889. The Depot building was raised three floors, and a wholly new exterior treatment applied in the neo-Renaissance style. The result was rechristened Grand Central Station.

Only two years later, architect Samuel Huckle, Jr. (1858-1917), was brought from Philadelphia to make additional changes to the interior of the station. Huckle was assisted by the Railroad's chief engineer, William J. Wilgus, who was to play a central role in the creation of Grand Central Terminal. The reorganization of Commodore Vanderbilt's time had outlived its day. A second major assessment of rail transportation in New York was imperative.

And, imperative for a host of reasons beyond the incapacity of Grand Central's physical plant to deal with the ever burgeoning rail traffic. The 42nd Street area was developing rapidly, and the severance of the city street

system by the train yard and tracks up to 56th Street, was no longer acceptable, especially to the surrounding property owners. The Park Avenue Tunnel, moreover, was inadequately ventilated so that smoke (and in the summer, heat) discomforted passengers, but even more importantly, made for dangerous operating conditions because of impaired visibility.

Electrification and the total submersion of the railroad seemed the only possible solution. Wilgus, with the assistance of Frank J. Sprague (1857-1934), a pioneer in the development of electric trains hailed as the "Father of Electric Traction", began studies of the problem. Electric railroads were still relatively new in the early 1900s. Sprague had installed the first electric railway in the United States, a street-car system, in Richmond, Virginia, in 1887. The first electric powered locomotive in this country appeared in 1895 in Baltimore, Maryland. "Multiple trains", that is, electrically powered cars not pulled by a locomotive, were developed by Sprague in the 1890's. The first "multiple unit" system was employed for an elevated railway in Chicago in 1897.

While Wilgus and Sprague were still involved with initial plans for electrification, a number of additional pressures were brought to bear on the situation. Public demand for electrification sharply increased in 1902, as a result of a train collision in which seventeen people died within the smoke-filled Park Avenue tunnel. Soon after, the State Assembly passed a law requiring that passenger trains be electrified by 1908. In addition, the Pennsylvania Railroad, foremost competitor of the New York Central, announced plans to invade the Vanderbilt preserve; a new all-electric station was to be built in Manhattan on the West Side.⁷ Simultaneously, the City's Rapid Transit Commission threatened to route a subway under Grand Central Station, thereby preempting the Railroad's underground rights.

Thus far, all new plans had called for the retention of the old Grand Central Station. Wilgus began a complete reconsideration of the problem, and formulated a plan based on the following question: "Why not tear down the old building and train shed, and in their place, and in the yard on the north, create a double level, under surface terminal on which to superimpose office quarters and revenue producing structures made possible by the intended use of electric motive power?"⁸

In March of 1903, Wilgus' plans were accepted by the President of the New York Central Railroad, William H. Newman. The scheme called for the complete submersion and electrification of all tracks, to run from a new train terminal north to 97th Street; the extension of Park Avenue south of 45th Street (Wilgus envisioned a "Court of Honor" or "Grand Central Park"); the utilization of air rights for the construction of a hotel and other buildings. Provisions were also made for future increases in suburban passenger traffic and for the expansion of the subway system.

In broad outline, this 1903 plan by Wilgus prescribed the essentials of the Grand Central Terminal complex as we see it today. As has often been noted, Wilgus' scheme involved not only engineering and architectural solutions of the highest order, but also those of urban development and planning. Perhaps most significantly, Wilgus' vision allowed for enormous economic gain to the Railroad within the framework of an uncompromising civic responsibility.

Although Grand Central Terminal is the result of the collaboration of many, Col. William J. Wilgus (1865-1949) deserves the largest measure of credit. Wilgus' formal education ceased with a correspondence course in drafting, but his engineering achievements won him honorary doctoral degrees, from the Stevens Institute of Technology and the University of Vermont. Wilgus joined the New York Central Railroad in 1893, and progressed from assistant engineer to chief engineer, to vice-president by 1907. During World War I he served in the American Engineers Force, and as a member of the military Railroad Commission to England and France. In the early 1920's, he was a member of the Board of Consulting Engineers of the New York and New Jersey Bridge and Tunnel Commission, and played an important role in the establishment of the Port of New York Authority. In 1934, he was appointed head of the Emergency Relief Bureau, which administered a vast employment program for needy workers. At the time of his death, the New York Times remembered him as a "man of many ideas, many causes...successful in most."⁹

The Architects of the Terminal

Once Wilgus' plans had been approved, an architectural competition was held. The fundamental engineering designs were distributed to the four participating architectural firms; Daniel H. Burnham, McKim Meade & White, Reed & Stem, and Samuel Huckle, Jr. Reed & Stem were specialists in rail station design and were, in 1903, working with Wilgus on a new station in Troy, New York. That Charles A. Reed was Wilgus' brother-in-law further strengthened the bonds between the architects and engineer.

All four designs submitted conceived a skyscraper Terminal building, straddling Park Avenue. The winning design of Reed & Stem called for a 22-story neo-Renaissance Terminal Building, with ramps, rather than stairways leading to the train platforms, and an "exterior circumferential elevated driveway"¹⁰ linking Park Avenue north and south of the Terminal.

Construction began on June 19, 1903, after plans had been approved by the city. In the same year, however, another architectural firm entered the scene. While nepotism may have played a role in the selection of Reed & Stem, it most certainly figured much more significantly in the consideration of the belatedly submitted schemes of Warren & Wetmore. Whitney Warren, the senior partner in this New York architectural firm, was the cousin and close friend of W.K. Vanderbilt (1849-1920), grandson of the Commodore and Chairman of the Board of the New York Central in 1903. Warren apparently brought his plans directly to Vanderbilt. His revisions called for the abandonment of the elevated driveways, and ramp system, and the erection of a terminal building of low, monumental effect without any revenue producing spaces. Vanderbilt was pleased, and although Warren & Westmore's plans were antithetical to those of Reed & Stem, the two firms eventually agreed to collaborate. The Associated Architects of Grand Central Terminal, with Reed as executive head was formed.

Compromise after compromise ensued, Wilgus later wrote that the plans were in constant flux for several years.¹¹ By 1909, most of the major elements of Reed & Stem's plans had been revived, including the terraced drives, the ramps, and, although to a limited extent, the revenue producing spaces. The low, monumental effect of Warren & Wetmore plan was to be retained, although provisions were made for the addition:

of upper stories if, at some future date, they were merited. In 1911, Reed died, and Warren succeeded as executive head of the associated firms. By 1913, when Grand Central was first opened to the public, Warren was claiming full credit.

That Reed & Stem were unfairly eclipsed in their own day by Warren & Wetmore should not blind us to the very real contributions of the latter firm. The scale and true grandeur of Grand Central's final form owes much to the Warren & Wetmore conception, while the beauty of the architectural detail of the building, both on the interior and exterior, seem to reveal the hand of Whitney Warren. On the other side, Reed & Stem, experienced designers of railroad stations, ought to be credited with the organization and planning of Grand Central.¹²

Charles A. Reed (1857-1911) was a graduate of the Massachusetts Institute of Technology. In the mid 1880's he formed a partnership with Allen H. Stem in St. Paul, Minnesota. Among their most notable buildings in that city were the Civic Auditorium, the Athletic Club, and the St. Paul Hotel. They also designed the Public Library in Michigan City, Indiana, and the Denver Auditorium in Colorado. The firm was best known, however, for rail station design, with over 100 stations to their credit. Prior to their association with the New York Central, Reed & Stem had worked for the Great Northern, Great Western, Northern Pacific, and Michigan Central Railroads.

Allen H. Stem (1856-1931) attended the Indianapolis Art School, and received his architectural training in the office of J.H. Stern. After his long partnership with Reed, he became associated with Alfred Fellheimer (d.1959) who had worked under Reed & Stem at Grand Central. Stem & Fellheimer continued to specialize in railroad design.

Charles Delevan Wetmore (1867-1941) received an A.B. degree from Harvard University in 1889, and in 1892 graduated from the Harvard Law School. He had also studied architecture, and before joining the law firm of Carter, Ledyard & Milburn, had designed three dormitory buildings on the Harvard campus - Claverly, Westmorly and Apley Court. Wetmore first met his future partner when he consulted with him concerning the design of his own house. Warren, impressed by his client's architectural ability, suggested he leave the practice of law, and Warren & Wetmore was established in 1898. Apparently, Wetmore became the legal and financial specialist within the firm, while Warren was the principal designer.

Whitney Warren (1864-1943), after graduating from Columbia in 1886, continued his studies at the Paris Ecole des Beaux-Arts, the pupil of Daumet and Girault until 1894. Upon his return to this country, Warren entered the offices of McKim, Mead & White, where he remained until the formation of his own firm. Warren & Wetmore's first major commission was for the New York Yacht Club of 1899, an exceptionally fine example of Beaux-Arts design, but it was not until the Grand Central Commission that the firm's reputation was fully established. Grand Central was the first of a number of railroad stations, including those built for the Michigan Central, the Canadian Northern and the Erie Railroads. The Biltmore Hotel, designed in association with Reed & Stem as part of the development of the Grand Central area, was the first in a long series of grand hotels by Warren & Wetmore. The Vanderbilt, the Commodore, the Ritz-Carlton, the Ambassador, and the Linnard were all constructed within the Grand Central district. The firm also received commissions for hotels

outside New York, among them the Hotel Ambassador in Atlantic City, the Belmont in Newport, Rhode Island, the Royal Hawaiian in Honolulu, and the Bermudianæ in Hamilton, Bermuda. The firm's best known office tower, the New York Central Building of 1928, is located just north of the Terminal. Warren's family ties and his own secure social footing made Warren & Wetmore a favorite of New York's rich and socially prominent. They received commissions for town houses and commercial structures from such families as the Vanderbilts, Goelets and Goulds.

Warren was an intense Francophile, a founder of New York's Society of Beaux Arts Architects, an officer in the French Legion of Honor, and a member of the Institute de France. He was appointed architect for the reconstruction of the Louvain Library in Belgium after World War I. His political fervor (which was at times misdirected; he greatly admired Mussolini in the 1930's) came into play when he insisted, amidst strong protest, that the library bear the inscription "Furore Teutonico Diruta: Dono Americano Restituto" (Destroyed by German Fury: Restored by American Generosity). Warren lived to see the new library (and the inscription) totally demolished by Hitler's army.

Construction of Grand Central

While the plans for the Terminal building were still under debate, the work under the supervision of the engineering team progressed steadily, if slowly. Excavation and construction of the vast underground track system was in itself a formidable task. It became a much more complex challenge, since train service was to be continued without any interruption. The huge excavation pit, over 46 acres in area and an average of 45 feet in depth, was attacked in three major campaigns, called "Bites". This allowed for the removal and replacement of tracks in phases, so the demolition could be undertaken in alternation with construction.

The great train shed designed by Hatfield was first to be razed. This was done in sections by workmen atop huge traveling gantry bridges, specially designed by Wilgus. Nearly 200 buildings were demolished "a veritable slum clearance."¹³ By 1907, the complete electrification of the railroad had been accomplished, although it was not until 1910 that the old station was demolished. By 1913, when the Terminal was nearing completion, approximately three million cubic yards of rock and earth had been blasted, drilled and shoveled away, and replaced by the submerged electric track system, and by the foundations for streets and buildings above. All this, without interrupting service, and without a single injury to a passenger or pedestrian.¹⁴

The huge work force assembled for the project was under the direction of Vice-President Wilgus, and after his resignation in 1907, Chief Engineer George Kittredge. Edwin B. Katte was head electrical engineer, while George A. Harwood was in charge of civil engineering. Although significant modifications to the original plan were made during the course of construction, all such adjustments were devised by Wilgus.¹⁵

Wilgus' plan was unique, involving a double level underground track layout, with a set of loop tracks at each level. These loops allow trains to turn quickly and efficiently rather than having to be backed out from the station platforms. There are 32 upper level platform tracks, intended for transcontinental and express trains, and an additional seventeen at the lower level planned for suburban traffic. A network of storage tracks

(which in effect replace the great open train yard of the 19th century), bring the total number of tracks to 66 on the upper level, and 57 on the lower. Above the tracks are massive steel bridges, which support the city cross streets, and Park Avenue as far as 97th Street.

The lower level 40 feet below street level, is set on concrete beds above bedrock. A bridgework of steel columns and girders, "a submerged forest"¹⁶ support the upper level tracks and platforms. The street overpass bridges are additionally supported by an intricate superstructure.

Since the track layout extends well beyond the site of the Terminal building, steel columns to support building foundations were placed between the tracks. Vibrational stresses made it necessary to keep these supports separate from those of the two train levels.¹⁷ The supports are encased in concrete to protect them from possible train collisions. Terra-cotta tiles also sheath the steel members as a fire-proofing measure. Further insulation from vibration is provided by layers of cork, asbestos, and lead.

Construction of the Terminal building proper, once the definitive plans were established, proceeded smoothly. A photograph dated to 1912, shows that the steel frame of the building was partially covered by the Bedford limestone and granite walls of the exterior, although the roofs were unfinished and the sculptural decoration was not yet in place. The building was not officially considered complete until four years later, while it was not until 1919 that the elevated driveways were entirely finished.

The Terminal Building and its Interior

Grand Central Terminal is one of America's finest examples of the Beaux-Arts style. The monumental, sober classical vocabulary of the building is enlivened by rich sculptural detail of a Baroque exuberance. Not only in style, but in siting and plan, Grand Central is the quintessence of Beaux-Arts design principals.

Beaux-Arts principles emphasize the expression of a building's function through its design. In discussing Grand Central, Whitney Warren proclaimed "Modern cities have no portals or arches of triumph. The real gateways are the railroad stations."¹⁸ The exterior of Grand Central expresses this function, for the facades of the building closely resemble ancient triumphal arches, the gateways to Imperial Roman cities. The allusion is most direct on the main entrance facade. Above the podium created by the first story, three great round-arched windows are enframed by engaged fluted columns upon a high stylobate. These Roman Doric columns visually support the cornice and attic story above. Even the depth of a triumphal arch is suggested, since the east and west facades of the building are recessed at the corners. The triumphal arches at east and west project forward slightly, reiterating the 42nd Street facade motif on a slightly reduced scale.

The main facade of Grand Central is crowned by the justifiably famous sculptural group created by the French artist Jules Alexis Coutan.¹⁹ The sculpture, a "tribute to commerce,"²⁰ depicts a triumphant Mercury, god of commerce and travel, flanked by a reclining Hercules, the hero famed for physical strength and moral courage, and Minerva, goddess of

wisdom and patroness of artists and artisans. The huge group - roughly 50 feet tall - is perfectly scaled to the monumental facade and plays an integral part in the architectural composition, functioning as the dramatic climax to the whole.

Few buildings in New York enjoy a more impressive setting than does Grand Central. From Park Avenue, south of Grand Central, one approaches the triumphal facade, enframed by the buildings along the Avenue, and visible from nearly a mile away. The architects, by raising the building on the podium created by the elevated driveways, enhanced Grand Central's visibility and intensified the dramatic focus. Although the site of Grand Central was determined by purely practical considerations, (the location of the railroad trackage), it nevertheless has much in common with the sitings of Beaux-Arts buildings in Paris, which frequently are placed at the termination of the city's grand boulevards.

Planning and spatial organization are central to Beaux-Arts theory. The interiors of Grand Central, designed by the associated firms of Warren & Wetmore and Reed & Stem, are a paradigmatic expression of these concerns, displaying the order and clarity, the amplitude and grandeur which was the goal of the Beaux-Arts approach. The plan of Grand Central, hailed as "a model of coherence and clarity,"²¹ is symmetrically disposed with a series of axially aligned major spaces - the Waiting Room and Concourses - connected by passageways and ramps. These ramps, unlike stairways, enhance the sense of easy progress and transition, and also facilitate circulation. On entering Grand Central, one senses the directionalized quality of the plan - a Beaux-Arts concern. Movement forward and gradually downward toward the actual train track platforms is suggested by the axially of the plan, while lateral ancillary spaces contribute a sense of spatial flow and freedom, harmoniously balancing the dominant forward impetus. In addition, the plan of Grand Central allows not only for ease of circulation within the building itself, but also for easy entrance and exit. The terminal functions as a center of transfer - "a great reciprocating engine for pumping a huge flow of pedestrian traffic."²² The noted architectural historian Carroll Meeks has termed this plan "a brilliant design" and continued "no better station of its size has ever been built."²³

The interior of Grand Central relies not only on its planning for its impressiveness, but also on what the architectural critic Lewis Mumford has characterized as "its major quality...space - generously and even nobly handled."²⁴ Beaux-Arts design attains much of its magnificence through monumental scaling and few interiors better illustrate this principle. At Grand Central, the Associated Architects handled the ancillary spaces monumentally and thus these spaces serve as an appropriate and essential introduction to the Main Concourse, the climax of the entire composition. The Main Concourse, "breathhtakingly grand,"²⁵ and in the opinion of the eminent architectural historian, Henry-Russell Hitchcock, "one of the grandest spaces the early 20th century ever enclosed"²⁶ has captured the affection and admiration of generations of travelers.

Aside from the fineness of the plan and the grandness of the spaces of Grand Central's Beaux-Arts interiors, the architectural detailing is of exceptional quality. Ornate, yet boldly scaled in keeping with the monumentality of the overall conception, it demonstrates a sensitive understanding of the use of classically inspired forms. As has been noted earlier, Whitney Warren, who had studied at the Ecole des Beaux-Arts is very likely to have been the principal designer of this fine detail, which

is exuberant yet dignified. The rich materials employed, marble and bronze most notably, have been skillfully and painstakingly crafted in the finest Beaux-Arts tradition. All of these elements - plan, space, and detail - combine to create one of America's great Beaux-Arts interiors.

Arriving at Grand Central, many passengers of an earlier time, had just descended from trains such as the Yankee Clipper, the Wolverine, the Empire State Express, and the Twentieth Century Limited, names which today evoke the romance and excitement of train level. That romance and excitement still echo within the Main Concourse, the Waiting Room and the halls of Grand Central. It is these architecturally and historically significant interiors which the Commission designates an Interior Landmark.

The main entrance to Grand Central is located on 42nd Street, directly under the viaduct which leads from Park Avenue to the elevated driveways. One first enters a short, segmentally-arched passageway with a ramped floor. Simply, but handsomely detailed, the passageway has segmentally-arched shop windows along its side walls, two fine glass and bronze chandeliers, a sober classical cornice, and most notably, a decorated tympanum above the doors leading to the Waiting Room. This consists of a marble panel adorned with a bronze relief of garlands with a central caduceus, the attribute of Mercury. The panel bears the inscription "To all those with head heart and hand/Toiled in the construction of this monument to the public service/This is inscribed. Above, is a clockface enframed by paired cornucopias in relief.

This relatively narrow, low-ceilinged entry opens onto the vast Waiting Room, precursor of the splendour of the Main Concourse, and in its own right, a room of extraordinary power and beauty. The Waiting Room is a huge rectangle - 65 feet by 205 feet - divided into five monumental bays, lit by enormous windows and splendid chandeliers. Above a dado of light beige Botticino marble, the walls are faced with simulated Caen stone. This facing, used throughout Grand Central, is a fine example of such "Counterfeiting," a tribute to the craftsmen who so successfully imitated the fine-grained, high-priced limestone of the Caen quarries in France. This Caen facing is "set" in broad and narrow alternating courses.

The south wall of the Waiting Room contains five large windows, three broad ones, separated by two narrower. All are screened with handsome, heavy bronze grilles, the borders of which contain acanthus foliate panels. Between the windows broad, smooth pilasters project slightly from the wall and are crowned by simple, leafy capitals. Beneath the windows to each side of the central entry are ornate marble enframed doorways surmounted by triangular pediments containing shells and oak branches, supported by consoles with acanthus leaf reliefs.

The north wall, similar to the south, contains five great windows with bronze grilles, through which one glimpses the Main Concourse. The walls resemble monumental piers, and effect enhanced by the broad pilasters which adorn them. Set into the pilasters are handsome bronze ventilation grilles of a type seen throughout the Terminal. The skilled craftsmanship and the richness of materials which characterize Grand Central as a whole, extend to all such details. Other examples include the bronze, classically ornamented letter boxes, the handsome marble drinking fountains, and the metal train indicator signs at the platform entrances.

The end walls of the Waiting Room are mirror images of one another, with large Caen -faced panels enframed by narrow floral borders, beneath

which are the handsome marble entries to the Men's Room (at the west) and the former Ladies' Room (at the east). Above the doors are clocks surrounded by garland reliefs set upon lintels carried on consoles. The corners of the room are rounded, and each contains a smooth pilaster which conforms to the curve.

The ceiling is richly adorned and painted to resemble bronze. It contains five bays, each with a central "Caen" panel lavishly enframed with foliate console brackets and classically detailed mouldings. From a central rosette in each bay is suspended an imposing three tiered bronze and gilt-bronze chandelier.

Many of the original mahogany benches are still in place. A few have been removed and one can now clearly see the indentation in the marble paving of the floor where millions of travelers' feet have rested.

Leaving the Waiting Room, one descends along a ramp which bisects the south gallery-like section of the Main Concourse. This ramp is flanked by ticket booths, constructed of marble and bronze.

Beyond, is the Main Concourse which Carl Condit has called "the classic work of interior space in American architecture."²⁷ This vast chamber, of well-merited world fame, billows upward to a height of 125 feet, and stretches to a breadth of 120 feet and a length of 375 feet. Although much larger than the Waiting Room, it too is divided into five bays which here attain a rarely equalled grandeur. The Main Concourse is essentially a great barrel vaulted hall with galleried aisles to the north and south, separated from the main space by monumental piers carrying a strong, imposing bracketed entablature. Within the galleries are huge square-headed windows, while at the east and west ends of the Concourse are three round-arched windows echoing in their arrangement the triumphal arch, or gates to the city motif of the exterior.

The upper walls and piers of the Concourse are sheathed in simulated Caen stone, while below, at "passenger level" marble predominates, not only because of its richness, but also because of its durability. The ticket windows ranged in two banks along the south wall of the Concourse are constructed of Italian Botticino marble with handsome Doric pilasters enframing each window. All the windows have numbered glass and bronze light fixtures, illuminated only when the window is in service. At the center of the vast Tennessee marble floor is a circular information desk, with marble counters enclosing a cylindrical bronze core which connects this desk with the corresponding structure in the Lower Concourse beneath. The Main Concourse desk is topped by a handsome four-faced bronze clock.

The north gallery, above the segmentally-arched entrances to the train platforms and the Pan Am Building (reached by way of a bank of escalators within the central bay) is an ideal vantage point from which to survey the Main Concourse. Within the gallery itself are the large windows with bronze grilles, and square skylights which fill the five bays. From the center of each of these bays hangs a cage-like elliptical chandelier, beautiful and original in design. These elements - windows, skylights, and chandeliers - also appear in the southern gallery. (This gallery was originally open to the level of the ramps leading to the Oyster Bar Restaurant.)

The west wall of the Main Concourse contains a gallery linked to the main floor level by a grand marble staircase. One descends a single flight

of stairs to a landing from which a U-shaped double stairway unfolds. The gallery and staircase are enclosed by a classical balustrade. In the side walls of the gallery are marble pedimented doorways leading to the north gallery and to the stairways and elevators which connect the Main Concourse with the upper floors of the Terminal. Three segmentally-arched doorways beneath the great round-arched windows open to the Vanderbilt Avenue taxi stand. The east wall of the Main Concourse, although now obscured by a massive billboard, originally was similar in design to the west.

When the terminal was first opened, the barrel vaulted ceiling of the Main Concourse was heralded as one of the most attractive features of the building. Just above the entablature, at the springing of the vault, Lunette windows appear in each bay. These windows are covered with grilles and ornamented by plaster reliefs which alternate in design. Winged locomotive wheels surmounting branches of foilage symbolize transportation, while globes with clouds, a caduceus and foilage are emblematic of world travel. At the ends of the vault, richly detailed mouldings with rows of rosette-filled coffers at the center, enframe the mural.

This mural, designed by the French artist Paul Cesar Helleu, depicts a night sky with constellations in gold leaf against a deep blue sky. The ecliptic line (evidently shown in reverse, since Helleu used an incorrect medieval source) and the celestial equators cross at the vernal equinox. The constellations depicted are those of the winter Zodiac, as well as Pegasus, Triangulum, Musca, and Orion. Many of the stars were internally lit, to give a twinkling appearance.

Paul Cesar Helleu (1859-1927) was a greatly admired turn-of-the-century artist best known for his portraits of women, especially those of the beauties of high society. Among his favorite sitters was the Duchess of Marlborough, daughter of W.K. Vanderbilt who was a collector of Helleu's work as was Whitney Warren. Helleu, who studied at the Paris Ecole des Beaux-Arts in the atelier of Gerôme, specializing in oil portraiture until the mid-1880's when he turned almost exclusively to etching. He was much in demand among the socially elite of Europe and was the model for Proust's painter, Elstir, in A la Recherche du Temps Perdu.

Proceeding through either of the archways flanking the Main Concourse stairway, and turning north, one arrives at the Incoming Station Concourse. This simple dignified interior has marble walls and paving and a beamed and paneled ceiling. The torchere shaped light fixtures of bronze and gilt-bronze are especially noteworthy. The original classically inspired sign lettering used throughout the Terminal is here seen to advantage.

Leaving the Incoming Concourse, one passes into the clearly marked, logically organized system of ramps and passageways which lead to street exits, subways, Upper and Lower Concourse levels, as well as to nearby buildings. They are appropriately simple and functional in design, many with stone faced walls, red tiled floors and handsome bronze light fixtures. Ramps of especial interest include those leading to the corner of Vanderbilt Avenue with its fine curved metal doorway, and the adjacent ramp leading to the subway; those which come together under the vaulted entrance to the Oyster Bar Restaurant; the ramps leading to 42nd Street from the Upper and Lower Concourses.

The Lower Concourse, situated directly beneath the Main Concourse, originally served suburban commuters, while the Main Concourse level was

reserved for passengers boarding long distance and express trains. The lower chamber contains ticket windows in the south wall and an octagonal information booth with windows surmounted by red marble panels and clocks. The marble walls of the Lower Concourse are bordered by a Greek key moulding. The beamed ceiling is supported on piers and is strongly illuminated by rows of lights within inverted bowl-like leafy fixtures. The round-arched entrances to the train platforms are surmounted by lunettes containing foliate ornament against a trellised ground.

The ramp at the center of the south wall of the Lower Concourse leads to one of New York's most famous restaurants. The Oyster Bar features "the most advanced structural elements in the whole Terminal complex,"²⁸ that is, the series of thin shallow terra-cotta vaults, termed Guastavino vaults after their inventor Rafael Guastavino (1842-1908), a member of a prominent family of Catalonian craftsmen who developed this herringbone patterned light weight vaulting system which became very popular in the United States during the early 20th century. Other noteworthy buildings in New York which make use of Guastavino vaulting are the Cathedral of St. John the Divine, the Low Memorial Library at Columbia University, and the New York City Municipal Building, all designated New York City Landmarks.

The broad, low vaults of the Oyster Bar are simple and unornamented, relying purely on the beauty of their shape for effect. The floors of the restaurant are of red quarry tile with terrazzo borders. The walls have been paneled in wood.

One major addition to the original interior of Grand Central is the Graybar Passageway, an extremely handsome, recently cleaned and restored hall, east of the Main Concourse, leading to the Graybar Building, the subways, and Lexington Avenue.

The Graybar Building, designed by the architectural firm of Sloan & Robertson in conjunction with the engineering firm Todd, Robinson & Todd, was completed in 1927. Sloan & Robertson specialized in skyscraper design, and among their many fine buildings is the Chanin Building on 42nd Street, a designated New York City Landmark.

The Graybar Passageway, although designed in a neo-Romanesque style rather than in the Classical Beaux-Arts manner of Grand Central proper, blends very harmoniously with the older structure. The inclusion of train platform entrances within the Passageway at its western end, enhances the subtlety of the transition. The walls are of man-made talc composition, imitating Travertine, and the floors are terrazzo. The hall consists of eight vaulted bays with a central bay, largest and highest, further accentuated by a mural, executed in 1931 by Edward Trumbull.

Edward Trumbull (1882-1969) studied first at the Art Students League in New York and later journeyed to England where he was a pupil of the noted muralist Sir Frank Brangwyn. Trumbull followed in his mentor's footsteps and specialized in mural works. His paintings are still to be seen in New York in the Chrysler Building and the Metropolitan Life Insurance Building. His murals within Grand Central's Oyster Bar are lost to view. The theme of the Graybar mural is Transportation and Construction, and includes scenes of train and air travel, and the erection of a skyscraper.

The imaginative stone details within the Passageway are fine examples of the neo-Romanesque style. Monstrous entwined beasts adorn the capitals of the pilasters and squat male figures, some astride the shoulders of other figures, some riding sheep-like creatures are set within small panels. At the west end of the Passageway is a handsome clock surrounded by a stone relief containing shields emblazoned with "gray bars" heraldically held by dragons, while at the east end of the Passageway appears a relief with a winged eagle-like creature holding a shield inscribed "Graybar."

In 1967, Grand Central Terminal was designated a New York City Landmark. Penn Central, the owners of the Terminal building, began negotiations during the following year with a developer who hoped to lease Grand Central's air rights and erect an office tower atop the Terminal. The Landmarks Preservation Commission found the proposed office tower designs inappropriate and denied the applications for permits. Thereupon Penn Central instituted a lawsuit challenging the application of the New York City Landmarks law to the Terminal. This litigation was finally determined by the U.S. Supreme Court in 1978, in a decision upholding the Commission's actions. In 1973, a program aimed at "restoring the walls, ceilings, and lighting fixtures as closely as possible to their original glory" was initiated, and still continues.²⁹

Conclusion

To arrive by train and enter the Main Concourse of Grand Central Terminal is an appropriate and impressive introduction to America's largest and most cosmopolitan city. The vast scale, the richness and beauty of the architectural detail and materials, and the fine planning of Grand Central's interiors, are considered truly exceptional. Until the construction of the Grand Central complex, no railroad station in the world had so completely fulfilled the needs of the traveler. Grand Central, and most especially its interiors, is one of the city's most treasured buildings, valued not only for its beauty, but also for the vitality it imparts to the midtown area. The Terminal is a survivor in an age of planned obsolescence. Its symbolic power as an emblem of Manhattan makes it a landmark in the fullest sense of the word.

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FOOTNOTES

1. V. Scully as quoted in H. Goldstone & M. Dalrymple, History Preserved: A Guide to New York City Landmarks (New York: Simon & Schuster, 1974), p. 223.
2. For an account of the early history of New York City railroads, see; W.D. Middleton, Grand Central...The World's Greatest Railway Terminal (San Marino: Golden West Books, 1977) chpt. 1.
3. It was not until 1873 that the New York & Harlem Railroad was leased to the New York Central.
4. That is, a station built at the "head" of the rail lines, rather than as a "through" station.
5. V. Scully ("The Death of a Street," Perspecta 8(1963), 91.) characterized the train yard as "an expressive, but perhaps rather satanic urban feature".
6. Vanderbilt Avenue, just west of the Depot, had been declared a public street in 1869. Depew Place, at the east, was not opened until 1884. It was named in honor of Chauncey Mitchell Depew (1834-1928), President and later Chairman of the Board of the New York Central.
7. Pennsylvania Station was built between 1906-1910, and designed by McKim, Mead & White. This magnificent, irreplaceable structure was razed in 1963.
8. W. Wilgus, "The Grand Central Terminal in Perspective" (Transactions, 106(1941), 1003).
9. New York Times, October 25, 1949, p. 27.
10. A. Stem & A. Fellheimer, Inception and Creation of the Grand Central Terminal, (New York, 1913), p. 3.
11. Wilgus, p. 999.
12. Allen Stem, after Reed's death, was not officially allowed to continue with Grand Central, Warren & Wetmore having been appointed sole architects. Stem sued Warren & Wetmore, and eventually received full compensation for fees not shared after 1911 - a sum in excess of \$200,000.
13. Wilgus, p. 1001.
14. The workmen at the site did not fare quite as well. In 1910 several workers died as a result of an explosion within an electrical substation.
15. Wilgus resigned as a result of a managerial dispute.
16. C. Condit, American Building Art (New York: Oxford University Press, 1961) p. 76.

17. Within Grand Central Terminal proper, concrete walls between the steel track supports absorb vibrations.
18. W. Warren, "The Terminal Supplement," Evening Post, Feb. 1, 1913, p. 6.
19. The carved sculptural detail of Grand Central was executed by the firm of Silvain Salieres.
20. Warren, "Terminal Supp.," p. 6.
21. J.M. Fitch & D.S. Waite, Grand Central Terminal and Rockefeller Center (Albany: State Parks and Recreation, Division for Historic Preservation, 1974), p. 5.
22. Fitch & Waite. p. 5.
23. Carroll Meeks, The Railroad Station (New Haven: Yale University Press, 1956), p. 130.
24. Lewis Mumford, "The Sky Line," The New Yorker, Mar. 19, 1955.
25. Arthur Drexler, The Architecture of the Ecole des Beaux-Arts (New York: Museum of Modern Art, 1977), p. 480.
26. Henry-Russell Hitchcock, Architecture: Nineteenth and Twentieth Centuries (Baltimore: Penguin Books, 1971), p. 544.
27. Condit, p. 79.
28. Fitch and Waite, p. 6.
29. Harlem, Hudson, New Haven Lines Metropolitan Regional News Release, Feb. 16, 1973.

FINDINGS AND DESIGNATION

On the basis of a careful consideration of the history, the architecture and other features of this Interior, the Landmarks Preservation Commission finds that the Grand Central Terminal Interior, main concourse level interior consisting of the 42nd Street entrance passageway leading to the waiting room, the waiting room up to and including the ceiling, the ramp connecting the waiting room and the main concourse, the main concourse up to and including the ceiling and including the surrounding balconies, the staircase leading to the Vanderbilt Avenue entrance, the area connecting the main concourse and the incoming station concourse, the incoming station concourse, the Graybar passageway, the ramp leading from the main concourse to Vanderbilt Avenue, the ramp parallel to the Vanderbilt Avenue ramp and leading to the subway, the ramp which intersects the two above ramps and leads to the lower concourse level, the ramp at the eastern end of the main concourse leading to 42nd Street, the ramps running parallel to the above ramp and leading to the lower concourse level, the ramp which intersects the three above ramps and leads to the lower concourse level; the lower concourse level interior consisting of the Oyster Bar Restaurant (excluding the saloon), the ramp leading from the Oyster Bar Restaurant to the lower concourse, the area of the lower concourse beneath the main concourse; and the fixtures and interior components of these spaces, including but not limited to, wall and ceiling surfaces, floor surfaces, doors, windows, lighting fixtures, murals, sculptures, panels, railings, grilles, sign boards, and signs; has a special character, special historical and aesthetic interest and value as part of the development, heritage and cultural characteristics of New York City, and that the Interior or parts thereof are thirty years old or more and that the Interior is one which is customarily open and accessible to the public and to which the public is customarily invited.

The Commission further finds that, among its important qualities, that the Interior of Grand Central Terminal is one of the finest examples of railroad station interior design in the world, that it is a truly impressive, richly detailed, and grandly scaled example of the Beaux-Arts style, that its planning is a paradigm of coherence and clarity, allowing for exceptional ease of circulation and maximum passenger comfort, that the use of ramps was an innovative concept, that the Main Concourse constitutes one of "the classic interior spaces in America," that the interior was designed by two notable American architectural firms working in association, that the beauty of style and plan of the interior were predicated upon pioneering engineering and urban planning concepts, that the interior continues to serve the city's transportation needs effectively, that it is also a vital civic center, and that it is a treasured symbol of Manhattan, cherished not only by New Yorkers, but by visitors from all over the world.

Accordingly, pursuant to the provisions of Chapter 21 (formerly Chapter 63) of the Charter of the City of New York and Chapter 8-A of the Administrative Code of the City of New York, the Landmarks Preservation Commission designates as an Interior Landmark the Grand Central Terminal Interior, main concourse level interior consisting of the 42nd Street entrance passageway leading to the waiting room, the waiting room up to and including the ceiling, the ramp connecting the waiting room

and the main concourse, the main concourse up to and including the ceiling and including the surrounding balconies, the staircase leading to the Vanderbilt Avenue entrance, the area connecting the main concourse and the incoming station concourse, the incoming station concourse, the Graybar passageway, the ramp leading from the main concourse to Vanderbilt Avenue, the ramp parallel to the Vanderbilt Avenue ramp and leading to the subway, the ramp which intersects the two above ramps and leads to the lower concourse level, the ramp at the eastern end of the main concourse leading to 42nd Street, the ramps running parallel to the above ramp and leading to the lower concourse level, the ramp which intersects the three above ramps and leads to the lower concourse level; the lower concourse level interior consisting of the Oyster Bar Restaurant (excluding the saloon), the ramp leading from the Oyster Bar Restaurant to the lower concourse, the area of the lower concourse beneath the main concourse; and the fixtures and interior components of these spaces, including but not limited to, wall and ceiling surfaces, floor surfaces, doors, windows, lighting fixtures, murals, sculptures, panels, railings, grilles, sign boards and signs; 42nd Street at Park Avenue, Borough of Manhattan, and designates Tax Map Block 1280, Lot 1 and 60 in part; Tax Map Block 1278, Lot 20 in part; and an area beneath Vanderbilt Avenue between 43rd and 44th Streets, Borough of Manhattan, as its Landmark Site.

Bibliography

Long before the present report was undertaken, the Research Department of the Landmarks Preservation Commission had gathered together a wealth of information concerning Grand Central Terminal. Special thanks should be extended to Ellen Kramer for her extensive research, and to Anna Amabile, a participant in the Landmarks Scholars Program of 1975, who wrote a lengthy thesis entitled Grand Central Terminal. In the summer of 1978, N. Ross Terry prepared a study on the New York Central (Helmsley) Building, as part of the Urban Corps Project in association with the Landmarks Commission, which was also most helpful.

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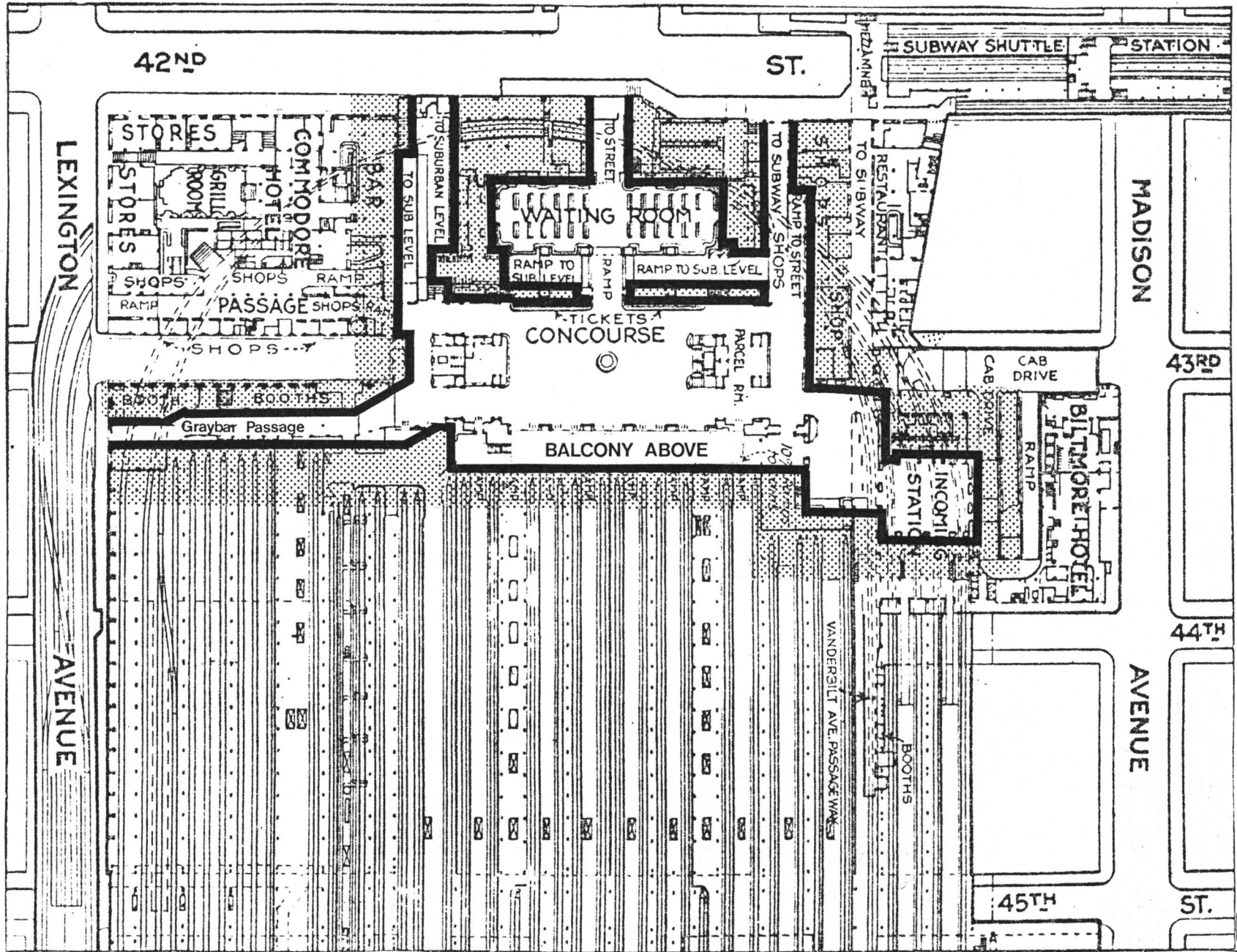
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Grand Central Terminal Interior
Main Concourse Level





William D. Middleton - Grand Central

GRAND CENTRAL TERMINAL INTERIOR

The Grand Concourse