The Architecture of Harvey Wiley Corbett

by

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Preface

Harvey Wiley Corbett (1873-1954), when noted in architectural history, is most often remembered for his contributions to the development of the setback skyscraper and for his fantastic conceptions of future cities. While Corbett's visions of New York as a "modern Venice" of towers and automobile canals certainly constituted the architect's most public work, forgotten is the majority of his other work, much of which deserves reconsideration. The opening of Corbett's career in 1900 revealed the classical design skills of a talented student of the Ecole des Beaux-Arts in Paris, and his larger and better known commissions of the nineteen twenties and thirties exhibited his penchant for designing buildings of a comfortably modern style. The architect played a leading role in directing architectural opinion in the United States, especially in the twenties when the skyscraper had come under attack as a cause of urban congestion. Then, and later, he remained an ardent and almost lyrical defender of the building form he had helped establish. He also shaped many of the architects of the succeeding generation, supervising for a decade New York's leading architectural atelier, where students went to get "the answers they'd been looking for." During the later years of his practice, Corbett's attentions somewhat unexpectedly shifted to the design and prefabrication of single family houses, a building type he had never before explored, and this interest occupied him until the close of his career at the end of the second World War.

In my efforts to condense a career that spanned five busy decades into one paper that will occupy, I hope, far less of the reader's time, I have divided my essay

into chapters roughly parallel to significant periods of Corbett's work. Unfortunately, not all his buildings get the attention they should receive in this distribution; I slight many in lieu of a more thorough mid-paper exploration of the metaphors of Babylon, Babel, and Venice that swirled about Corbett and his work during the nineteen twenties and thirties. Also incomplete is my description of Corbett himself. The architect's own writing, published in numerous articles for periodicals and occasional books, conveys much more clearly than mine the wit, affability, and charm that defined his character. A popular speaker on architecture at functions of all kinds, Corbett's personal appeal was responsible in no small part for the widespread contemporary recognition of both his real architecture and his imagined cities of the future.

If a single description is to be applied to Corbett's work, I believe that the architect provided it himself: "architecture must provide space and convenience," he would drill his students; but, he always continued, "it must provide thrill and appeal" as well. I hope to show that Corbett's architecture in large measure surpassed his own standard.

i. A Beaux-Arts Education

Little is known about Corbett's childhood beyond his birth on 8 January 1873, in San Francisco, California, to Samuel James and Elizabeth Wiley Corbett. While both his parents were physicians and a namesake uncle was noted in chemistry, the young Corbett instead studied mechanical engineering at the University of California, Berkeley, graduating in 1895 with a Bachelor of Science degree.[1] During the following year, Corbett traveled to Paris and earned entrance to the Ecole des Beaux-Arts, where he would spend the next four years studying architecture. Such travel to Europe for professional training was not uncommon at the turn of the century: the architecture program at the Ecole had long held the position of preeminence, and after the success of architect Richard Morris Hunt (1827-1895)—the first American to study there, from 1846 to 1854—almost all leading architectural students in the United States ventured to Paris. Moreover, the few architecture schools in the United States were still considered second-rate imitators of the French atelier method, so those American students with the necessary financial means usually traveled to the Ecole.[2]

Corbett's sojourn in Paris began with his acceptance into the studio of Jean-Louis Pascal (1837-1920), whose support as a *maître d'atelier* was necessary for application to the Ecole. Admission into the school was granted after Corbett passed both written and oral examinations in mathematics, descriptive geometry, history, drawing, and architectural design.[3] Once in the school proper, formal instruction was limited to lectures on architectural history and theory, and to the issuing and judging of *concours*, or competitions, in areas of academics,

construction, and design. While some of these concours awarded Corbett prizes and medals, most awarded points to his record. After achieving a certain number of these points, Corbett advanced from the *deuxième* to the *première* classe of students, where he competed in concours with more difficult subjects for medals and points that counted towards a *Diplôme.* In his four years of study, Corbett accrued medals for mathematics, modeling, architecture, and free-hand drawing, and ultimately in 1900 a *Diplôme* from the French government, certifying his high achievement at the Ecole.

Outside the walls of the Ecole, design instruction and Corbett's daily drafting routine occurred at the atelier Pascal, located on three floors above a junk shop at 20, rue Mazarine. The organization of Ecole ateliers went beyond a simple sharing of drafting space; the more experienced students guided the newer in the execution of their projects. These *nouveaux* returned the favor and gained further experience by helping the *anciens* complete presentation drawings for their larger concours and charettes.[4] This endless work on concours was punctuated by the maître's appearances at the atelier for formal criticism of students' design work. Pascal visited his students thrice weekly, an unusually generous schedule that contributed to his popularity among American and British students.[5] Just as essential to Pascal's educational practice was his encouragement of student inventiveness and his attempts to nurture his students' imaginations. John Burnet, a member of Pascal's atelier from around the time of Corbett, later explained of Pascal that:

> "In the atelier it did not seem to take him an instant to realize the possibilities of any sketch that his pupil might put before him, and he always left us either happily convinced that our sketch was not worth

> further trouble, or with our eyes opened to the artistic possibilities in it of which we had not dreamed, giving us courage to go through the days and nights required to make finished drawings. He had a wonderful power of accepting the conception of his pupil and helping him to develop it."[6]

Integral to the maître's pedagogical method was his approach to architectural theory. For Pascal, good architecture did not slavishly adhere to established archetypes, and neither did it follow current "fashions," his term for breaks with tradition for the mere sake of difference and novelty. Rather, Pascal believed that architectural quality stemmed from an imaginative, creative, and entirely rational use of traditional architectural elements to achieve a building of original character.[7] Students could examine these ideas firsthand in Pascal's stunning entry for the 1866 Prix de Rome competition, the first with an asymmetrical design to win [fig. 1].[8] The architect successfully negotiated a treacherous program—one designed by supporters of Viollet-le-Duc to thwart Beaux-Arts solutions—by hinging revitalized Beaux-Arts plan elements around unorthodox semicircular courts and circular salons, all together comprising a parti of brilliantly revitalized academicism. While few literal echoes of the Hôtel plan would surface in Corbett's later projects, the plan's imaginative and tastefully innovative spirit would infuse his American student's work. Likewise, Pascal's devotion to his students would set the tone of Corbett's own future atelier in New York.

Outside the atelier walls, Corbett's architectural education was guided predominantly by Julien Guadet (1834-1908), the influential professor of architectural theory at the Ecole during Corbett's term of study.[9] Guadet and Pascal advocated similarly unconventional approaches to architecture that likely

arose from their lifetime of shared experiences: together they had formulated in 1863 the student petition against the appointment of Gothicist Eugène-Emmanuel Viollet-le-Duc to the Ecole professorship in the history of art and aesthetics; the two had earned overlapping stays in Rome for their Prix de Rome projects of 1864 and 1866, respectively; and both had honed their talents under Charles Garnier at the atelier-like *agence* for the Paris Opéra.[10] As it was, the two were collaborating during the time of Corbett's Paris stay on an edition of Blondel's *Architecture Française*.[11] With so much contact between Guadet and Pascal, Corbett could not have missed Guadet's architectural theory even had he skipped all of the Professor's lectures.

Central to Guadet's lectures lay the belief that meaning in architecture was conveyed foremost through a building's particular assembly of architectural elements.[12] Monumentality, for example, could be connoted by means of a solid wall, or elegance through the presence of an arcade. But in contrast to Pascal, whose stylistic tastes were meticulously French, Guadet believed that an architect should draw such elements from any suitable source, not just one preordained style. "Our art," he wrote in *Eléments et théorie de l'architecture*,, "like our language, like our whole civilization, is—and must be—the rich inheritor of an estate that has accumulated over the centuries."[13] Along those lines, Guadet had distinguished himself in 1864 by claiming the first Grand Prix ever awarded to a medievalizing entry, his melding of Romanesque, Gothic, and Renaissance elements into "Un hospice dans les Alpes" [fig. 2].[14] Justifying such stylistic heterogeneity, Guadet believed, was the need to differentiate between "the architectural impression and the moral impression of the program," and the obligation to prevent architecture from falling victim to monotony and banality.[15] It was this eclectic license, when taken back to America by Corbett and other Beaux-

Arts trained architects, that would encourage the early pastiche of skyscraper styles that flourished in the absence of an established tall building decorum.

In contrast to his clear aversion to stylistic dictates, Guadet offered Ecole students contradictory opinions on the issue of architectural composition. On the one hand, Guadet contended that a building's "general expression"—his term for the overall organization of architectural elements—ought to follow established patterns of Beaux-Arts composition, so that an evoked archetype could lend its distinction to the associated design. Yet, Guadet further reasoned that "freedom is not simply the right to change one's uniform, and our art has gradually freed itself from such archaeology. Not everything was a success, but all efforts in this direction bore fruit, and today we know and proclaim that our art has a right to liberty."[16] Both of these ideas would reverberate in American architecture during the first half of the century: early attempts to establish an appropriate skyscraper type would try to adapt entrenched forms like the Gothic tower to the modern tall building; and by the 1920s, Corbett and others would explore new forms for the skyscraper, ones based on modern conceits rather than stylistic precedents.

Perhaps Guadet's ambivalence towards the emergence of a modern architecture can be best understood in light of his foremost goal as an architectural educator: "I hate artistic proscriptions, like all proscriptions, and artistic exclusiveness like all exclusiveness, and I aim to make you understand the sense, broad and severe, in which I understand that word 'Classic' that I set at the head of these studies."[17] Corbett and his contemporaries indeed gained at the Ecole a strong education in "classic" architecture: until the ascendence in America of a dogmatic "International Style" modernism, the application of any number of historicist styles to contemporary building types, like the skyscraper, was not

thought to be incongrous to either "modern" architecture or the "classic" styles themselves.

With government *Diplôme* and concours medals in hand, Corbett left the Ecole and Pascal's atelier in 1900 for the customary grand tour through France, Italy, and England. Unlike most American students from the Ecole, Corbett's travels coincided with a commission: the administration building for the Compagnie Genovoise des Tramways Éléctriques in Geneva, Switzerland, designed while Corbett was still in Paris and built in 1900 [fig. 3].[18] A three-story, astylar masonry block organized into six bays and a corner pavilion, the building fronted an existing group of machine shops and car sheds. Anchoring the composition, a single pavilion turned the building's right corner to form half of the narrow side elevation—an asymmetrical arrangement unexpected from any Ecole graduate, let alone a novice [fig. 5]. Continuing to break from tradition, Corbett relocated to the pavilion the building's entrance, which customarily was positioned on the main facade's central axis. This compositional imbalance was mediated somewhat by keeping the pavilion under the roof line, which preserved the unity of the overall block, and by carefully inverting at the pavilion the rhythm of wall to opening, thus creating within the overall block a symmetrical frame around with windows.

The impetus for Corbett's departure from a traditional Beaux-Arts axial composition for the Administration building remains a looming question, but an examination of the building's parti sheds some light on the novice architect's unorthodox design [fig. 4]. The commission required that the new administrative spaces immediately adjoin existing machine shops, an arrangement prone to problems of mechanical noise and dirt befouling the office areas. Corbett alleviated this nuisance by running the main traffic corridor of the administration

building along the rear of the block, where it could buffer the two large workrooms to the front from shop contaminants from the rear. From this corridor, passage to the entry hall was gained through the stair hall in the corner of the block, which in turn separated the working and public areas of the building. Also serving double duty was a reception office that opened off of the entry hall and shielded traffic from the work rooms behind. The confident agility of the building's parti suggests that Corbett benefited from the criticism and support of Pascal, under whose guidance Corbett adroitly accommodated the demands of his first commission.

Upon completion of the Administration building, Corbett returned to the United States in 1901, where he found work briefly in the office of Cass Gilbert before moving on to work for Hunt and Hunt and then John Du Fais in rapid succession.[19] Only two years later, Corbett joined with F. Livingston Pell in New York City to form the architectural firm of Pell & Corbett. Pell was as well-studied in architecture as Corbett: after earning a Ph.B. from Columbia in 1895, Pell went to work in the office of George B. Post (1837-1913), where he worked on designs for the City College of New York. Four years later, Pell earned the McKim traveling scholarship and with it pursued two years of graduate architectural study at the American Academy in Rome.[20] With such thorough domestic and classical training on the part of both partners, the fledgling firm of Pell & Corbett was better prepared for architectural design than most.

The architects' first commission of note came not from a New York client but from one in Baltimore, the Maryland Institute, an art and technical school whose buildings were destroyed in the fire that decimated much the city's downtown on 7 February 1904. After the Institute announced in late January 1905 a competition for their new fine arts building, thirty-one firms, including Pell and Corbett,

submitted proposals by March of that same year to be judged by members of the prestigious firms of McKim, Mead and White, Carrier and Hastings, and Ware and Van Brunt.[21] The competition itself was unusual in that it concerned the architects primarily with the exterior treatment of the Institute; a schematic plan already had been developed and provided to the competitors by the school's principal, Otto Fuchs. While the other competitors dressed the plans in standard academic Beaux-Arts attire, Corbett and Pell instead offered the Institute a strikingly crisp Renaissance revival palazzo [fig. 6].[22] Despite some misgivings among the jury that such an entry was "better adapted to an art gallery than a school," Pell & Corbett received the commission and a $500 contract for their design.[23] Ground for the new building was broken in June 1905—only five months after the original competition announcement—and the Maryland Institute formally dedicated the building in November 1908.

The unusual choice of a Renaissance revival scheme for the Institute building likely was settled upon by the young designers for a number of reasons. First, The Maryland Institute competition paralleled the construction by Baltimore industrialist Henry Walters of his private art gallery, which was designed by another young New York firm, Delano and Aldrich, along the lines of a palazzo in Genoa. The two commissions were seen as "sister" buildings by the Institute, a fact that Delano and Aldrich, who were acquainted with Corbett and Pell by way of the Ecole, could have passed on to their colleagues.[24] Then again, Corbett and Pell may have chosen a palazzo form simply because it suited itself so well to the program: Fuchs' plan required pallazo-like grouping of classrooms and administrative spaces arrayed around a central court [figs. 7-8]; and the school's focus on fine arts meshed with the Palazzo's strong evocation of the Italian Renaissance, where the classical arts taught at the school had been reborn.[25]

Regardless of inspiration, the Institute Building expressed discerning architectural tastes. Broadly spaced ground floor window and entrance openings established the monumentality of the broad wall surfaces and determined the facade's rhythm, a nine window arcade distinguished the piano nobile and quickened the pulse of the block, and five pairs of tiny windows within the delicate attic frieze provided a lilting counterpoint to the large openings below.[26] Within the block, large studio rooms framed a sky-lit court, in which a monumental stair rose to the second-story balcony and an art gallery beyond the stair wall. Just below the balcony rail, resting on an arcade of Numidian marble columns, a colorful frieze featured the names of prominent Renaissance artists and architects. Above these two public stories lay a third level of sky-lit studios accessed by small stairways to either side of the balcony, while below the main floor lay mechanical equipment, including an ice-based air conditioning system—likely the work of engineer Corbett—that provided more condensation, fog, and even rain in the building, than it provided cold air. This technical flaw aside, the design of the Maryland Institute garnered Pell & Corbett the City of New York Architectural Grand Prize of 1907, given for the best design by one of the city's firms, and in addition one of six gold medals given in 1908 by the New York State Chapter of the American Institute of Architects.[27]

At the same time the Maryland Institute was nearing completion in 1908, Corbett and Pell won their next major commission in another competition, this time for a classically-styled Municipal Group in Springfield, Massachusetts (built 1909-1912). The architects could not here exercise the discretion among archetypes that they had enjoyed with the Baltimore commission; the program for the Springfield civic center required specifically that a neoclassical design accommodate a

municipal office building, a large civic auditorium, and "a bell-tower in the nature of an observatory."[28] While other competitors all combined these elements into a single building, Corbett and Pell set themselves apart by expressing separately the required functions. The auditorium and office buildings took shape as nearly identical temple blocks, and the bell tower became a free-standing shaft loosely based on Stanford White's tower for Madison Square Garden of 1890, which in turn had been inspired by the La Giralda tower of the Cathedral of Seville [fig. 9]. This choice of two temple blocks, however, resulted in a composition of unresolved and unsettling tension between competing classical facades, with no central mass to dictate order. Furthermore, the already strong horizontals of the decastyle pediments reinforced each other by their proximity, thus creating the effect of apparent disproportion between pediments and columns. A more visually stable solution all around would have come by facing the pedimented fronts toward each other across a central plaza, perhaps with a bell tower behind to terminate the space, but that possibility was ruled out by a program mandate that all buildings face the city square on which the site fronted.

Left with few options, Corbett and Pell positioned the blocks side by side and anchored the composition with a bell tower directly front and center in the intervening space [fig. 10]. While this location threw off the balance of the group from front to back and further denied the possibility of a central piazza open to the street and square beyond, the front-positioned tower did offer its unbroken verticals to break the overly strong horizontity of matched temple fronts. To further stabilize the composition, the architects increased the height of the tower in execution from what they had initially planned, thereby creating several visual effects. First, the taller tower compensated for a greater central mass that might have balanced the flanking pediments. Also, the extra height drew the eye even further up and

increased compositional tension between horizontal and vertical that helped downplay competition between the pediments. Finally, the tower equaled in height the length of the site's base, thereby establishing an equilateral triangle about the arrangement that lent greater stability to the entire group. In its final execution, the tower was as well-proportioned as the pediments, and the ensemble enjoyed attention in architectural periodicals.

Corbett's last major commission with Pell, and the first in America that we can attribute specifically to Corbett's hand, was an exuberant mid-Manhattan residence for the New York School of Applied Design for Women [fig. 11].[29] The architect arranged the elements of the building's facade in accords with standard French rationalist practices, to echo different interior activities: a heavy horizontal band separated the mundane entry and office level from classrooms above, a giant order ennobled those classroom floors while further imbuing a sense of academic integrity upon the whole work, and the broad entablature above delineated top-floor studio spaces from rooms below. Yet by no means did the building as a whole resemble the typical Beaux-Arts compositions produced earlier by Pell & Corbett.

Recently, critics Elliot Willensky and Norval White have deftly explained the School's uniqueness when they described it as "a great tour de force of neo-Grecian design: a veritable 20th-century temple to the arts."[30] As the authors indicated, the roots of Corbett's design tapped not standard French academic archetypes but rather the "Modern Greek" ideals that emerged from the Ecole during the mid-nineteenth century and were brought to America by Richard Morris Hunt (1827-1895) in New York's prominent Lenox Library (1870-1877) [fig. 12]. Architects working in this néo-Grec mode strove to emulate the spirit and freedom of Greek architecture by reducing a building to a functional skeleton that

emphasized structural mass and by then molding this skeleton into a vibrant and animated form adorned with simple decorative elements.[31] To accomplish these ideals, Corbett first articulated the load-bearing piers by deeply recessing the windows, then dressed the structural cage with highly-machined columns under an entablature notched to reveal non structural segments, and finally he capped the frame with a frieze and a simple pitched roof. The placement of another frieze in the starkly outlined band along the top of the base story further separated it from the temple-like block above. Such a freewheeling placement of Greek architectural motifs invigorated the building's facades with the stylistic *varieté* called for by Guadet.

While the New York School was designed primarily in the néo-Grec mode, the commission captured as well an energy and tension between straining verticals and restraining horizontals that reflected Corbett's attention to developing characteristics of uniquely American architecture. The columns of the School surged upwards from the horizontal base story as if they were pistons extracting piers and floors from the mass below, following the example of Frank Furness in his Philadelphia work of the 1870s. Even the ponderous entablature did not appear to check the School building's reach, since above it an extended attic story and a steeply pitched roof were stretched further up and away from their expected quiet repose. Similar strain between vertical and horizontal forces likewise invigorated the facade of Hunt's frenetic Tribune Building (1873-1875), one of New York's landmark tall buildings, which actually had been stretched upwards twice: once during construction, when an additional story was squeezed into the main block [fig. 13]; and again in 1895, when nine floors and a reseated tower were piled above the previous cornice line in an attempt to maintain the title of New York's tallest newspaper building on Park Row [fig. 14].[32] The net impression of the New

York School was one carefully balanced between this vigorous structural energy and decorative playfulness, resulting in an ungainly, unorthodox, and thoroughly ebullient Murry Hill landmark.

ii. An American Education

During these productive years with Pell, Corbett found much to occupy himself outside the architectural office. In 1905, Corbett married Gail Sherman, a Syracuse graduate who would become a sculptor in her own right; together they would have two children and enjoy a forty-seven year marriage. 1907 marked as well the beginning of Corbett's long career as an architectural educator: he would supervise one of Columbia University's ateliers from 1907 to 1909, serve as a guest lecturer there from 1909 to 1912, and then return in 1920 to serve as a regular critic and lecturer, until 1935. On his own volition, Corbett would supervise an independent atelier, in action from 1909 to sometime around 1920, that offered scores of prospective and recently-graduated architects the practical architectural training that they lacked.[33]

While private architectural ateliers had been flourishing in New York since its introduction there by Richard Morris Hunt in the later nineteenth century, the atelier system had not been incorporated into Columbia University's architectural curriculum by its founder William Ware. That omission prompted widespread hostility toward the program from the city's Beaux-Arts educated architects, who, united behind Charles Follen McKim (1847-1909), wrested control of the program from Ware in 1903. McKim quickly established three student ateliers—one on campus for students to learn architectural basics, and two others downtown, where

more advanced students honed their skills under the tutelage of practicing architects. McKim himself headed one of these more independent downtown ateliers, and it was McKim that apointed Corbett his assistant atelier director in 1907—likely prompted by Corbett's receipt that year of the New York architectural grand prize for the Maryland Institute.[34]

When McKim died in 1909, Corbett ended the atelier affiliation with Columbia and moved it from 25th Street to a new location above Keen's Chop House, on 36th Street east of 6th Avenue. There, it became the favorite place for architectural students, and even some graduates, to hone their academic skills under Corbett's tutelage. The atelier's success was due partly to its unusually convivial atmosphere: unlike other atelier maîtres in New York, the affable and outgoing Corbett disdained the stiffly formal relationship between patron and pupil that frequently carried over from the Ecole. Instead, he formed first-name friendships with pupils, to whom he devoted an unusually generous amount of time, just as Pascal had done with him in Paris.[35] Corbett "was convinced you could have a good time if you wanted to, even if the other fellows were bastards," claimed Wallace Harrison (1895-1982), a student in the atelier between 1916 and 1917 and eventually one of Corbett's partners.[36] But as important to Harrison was Corbett's gregarious nature: "you don't just learn architecture by doing it, you learn by talking with people—anybody who is cultivated and knows his history. It's the personal contact that counts."[37]

The student experience in Corbett's atelier was further distinguished from their training elsewhere by the fact that Corbett approached historical styles more critically than before as he entered his second decade of practice. "He was the first person to give me the answers I'd been looking for," Harrison explained of Corbett's teaching. "He taught us the why of things, and if there wasn't any good

reason for things being as tradition ruled as they should be, he said so. You couldn't get that kind of answer at McKim's," where Harrison was employed as a draftsman.[38] Nor could the students get such open answers at Columbia. As an example of both Corbett's enthusiastic teaching and his critical eye, Harrison recalled the walks he took with Corbett throughout the city:

> He'd spout away on the good and the bad aspects of the buildings we passed. He'd point to the columns McKim's did for Penn Station, for instance, and explain that the firm had narrowed the spaces between them at the end of the building to give it the illusion of sturdiness. But Corbett thought it was carrying the Renaissance too far to make taxicabs swerve between pillars to get in and out of the station. Other evenings, we'd walk over to Grand Central, and Corbett would point out [how]....Whitney Warren, the architect of Grand Central, provided more entrances...and placed them in such a way that traffic moves in and out of the station more easily.[39]

These walks not only benefitted the students, they offered Corbett the opportunity to critically explore issues of urban planning and traffic congestion, topics that would fundamentally redirect the architect's attention during the 1920s.

The method by which Corbett ran his atelier was an equally unorthodox blend of precedent and practicality: in the manner of Beaux-Arts concours, Corbett issued his pupils design programs, for which his students had only the span of the day to generate schemes and select a single solution to be fleshed into a formal project for evaluation by Corbett. Corbett's intent here was distinctly Beaux-Arts:

> We can give [the student] an open and elastic mind, well trained in rational analysis, a common sense groundwork in construction and a clear understanding of the really limited number of plan elements which are permissible in good building. And finally, we can give him the fullest and most complete knowledge of architectural forms in the round, that he

> can possible absorb, with an abundance of motives and styles, and the technical facility for expressing them, so that when he goes forth to build he will not be cramped in the solving of the practical, economical and utilitarian elements of his problem by a limited supply of architectural ideas with which to round out and finish off his work.[40]

Yet unlike the typical Ecole-inspired concours for monumental government commissions, Corbett issued his programs in the form of a letter from a business client detailing particulars of a realistic commercial building.[41] Moreover, he issued these letters every Saturday morning, and he gave his students only until the following Friday to prepare their projects for his scrutiny, a schedule attuned to the frantic pace of American building. Corbett spelled out reasons for such a commercially oriented atelier:

> Let [the architect] get it well grounded in his mind that his function in life is one of service—that he is here to help solve humanity's problems as far as his intimate technical knowledge of building affects those problems, that he must never lose sight of the coldly economic side of the case, but must get results within the means available and without sacrifice of those vital elements of plan arrangement or structural simplicity which mean so much in sound financial return to his client.[42]

As he reviewed student designs on those Friday afternoons, Corbett emphasized above all to his pupils the principles that guided his own designs: architecture must have "thrill and appeal" while providing the necessary "space and convenience."[43] For an example of thrill and appeal, Corbett could take students to see his own New York School of Applied Design, located only blocks away from the atelier. For insights on space and convenience, Corbett could offer students the concise explanation he included in a contemporary article on industrial architecture.[44] There, he simply explained space and convenience as "a

comprehensive sense of arrangement," which for Corbett was Beaux-Arts compositional dogma reordered by the distinctly American obsession with efficiency:

> this means *arrangement* from every possible angle, not only the logical arrangement of buildings to site, or the economical arrangement of construction types to local conditions, or the mechanical arrangement of incoming raw materials to outgoing finished product, or financial arrangement of first-cost and final return; but also the practical arrangement for the comfort, convenience and care of the workers, the essential arrangement for supervision and inspection by managers and, last but not least, the arrangement of all for the sake of appearance.[45]

Corbett the university-trained engineer had fully emerged, an alluring counterpart to Corbett the academy-trained architect. Such a melding of Yankee practicality with French artistry in his writing, practice, and pedagogy, established Corbett as a leading New York City architectural educator and, by the twenties, a leading architectural theorist.

iii. To Brooklyn and Back

Unfortunately for Corbett, the business acumen that marked his writing and teaching surpassed his own financial sensibility. He filed for bankruptcy in September 1914 with the twin liabilities of a $40,150 debt and a tarnished reputation, both incurred through his role as Secretary of the fraudulent Magnesia Asbestos Company.[46] Corbett had in fact been arrested in 1910, along with the Magnesia Company president, on charges of swindling investors; two years later, Corbett turned state's evidence to help send his former partner to prison on exactly

those grounds.[47] The Magnesia investment was not Corbett's only bad business deal. He had also invested heavily in an upstate country club for which he was the architect, and that project failed as well.[48] Such poor fiscal aptitude apparently characterized Corbett, whom Harrison believed to be an inept businessman and an easy target for get-rich-quick schemes. "He preferred to talk than to work," Harrison later recalled of Corbett's characteristic loquacity.[49]

Not surprisingly, the successful partnership of Pell & Corbett was dissolved sometime in the midst of these troubles, likely because Corbett's sullied name drove clients away from the firm.[50] Fortunately, Brooklyn-based architect Frank J. Helmle (1869-1929) was not so squeamish about Corbett's past dealings, and in 1912 he invited the beleaguered Corbett to form Helmle & Corbett and abandon Manhattan for the relative sanctuary of New York's second-largest borough. Helmle's offer to Corbett was hardly an act of charity; since establishing himself in Brooklyn around 1890, Helmle had designed with successive partners a string of respectable but little-noticed commissions.[51] To propel his firm into the top ranks of the field, Helmle needed a new partner, one whose talents would augment Helmle's own strengths as a businessman and an architectural office manager; Corbett, a designer of award-winning buildings, offered Helmle just such a match. Helmle in turn offered a reputation sound enough to buoy Corbett's discredited name, and as importantly, he could provide a roster of clients to provide the pair with steady work. Together, Corbett and Helmle would progress in less than five years from the backwaters of Brooklyn to the forefront of the Manhattan architectural scene, largely on the basis of their combined forces. Corbett charmed new clients with his captivating personality and designed them innovative buildings, while the hard-nosed Helmle supervised the execution of these

commissions, oversaw the firm's business matters, and ensured that the office ran smoothly.[52]

Much of the partnership's early output comprised industrial commissions, including factories designed for the Sperry Gyroscope Company and the Thomas Shoe Company and built sometime between 1913 and 1918 [figs. 15-16].[53] Both handsome vertical arrangements in reinforced concrete, the two buildings typified the austere industrial style of the day with their classically-inspired pilasters and cornices. But in the structures for Ralph Leininger, Esquire, and for Pathé Frères—both constructed during the economic strictures of World War I—Corbett stripped his designs to the barest essentials of concrete structural frame and glass infill windows [figs. 17-18].[54] "The true function of the architect," Corbett explained of his industrial works, "is not one of concealment or deceit, but of true and sincere expression. No harm comes from a factory looking like a factory. The artistic crime is committed when it looks like something else. Let's tell our story as clearly and sincerely as we can."[55] Cheap, fireproof, and blatantly industrial, the buildings exemplified Corbett's economic approach to industrial architecture. Moreover, they reflect his attention to the reinforced concrete architecture that had emerged both in distant Paris, where Auguste Perret formed an elegant apartment block in 1903 and a parking garage in 1906 around exposed concrete frames, and more closely in Detroit, where Albert Kahn pioneered around 1910 a bare reinforced-concrete aesthetic in plants for Ford and other automobile manufacturers [figs. 19-21].[56] For architects in New York, Helmle & Corbett's factory designs offered a glimpse of a new industrial aesthetic, one of unadorned walls and flush surfaces visually subordinate to building mass. Eventually, after much hedging by Corbett, these

characteristics would make their way into his commercial architecture of the later twenties.[57]

The big architectural break that thrust the firm of Helmle & Corbett to the top ranks of New York design firms came to the pair from their leading Brooklyn client, shipping magnate Irving Ter Bush. Bush's vast deep-water port and rail terminal on the South Brooklyn waterfront had handled sixty percent of the government's overseas freight during the First World War, generating for Bush the money necessary to launch another venture within his commercial juggernaut -- a consolidated wholesale merchandising facility in midtown Manhattan, where scores of manufacturers could display their wares in one centralized location for purchase by buyers from around the world.[58] In addition to retail space, the building would house in lower floors a buyer's club, a bar and grill, meeting rooms, and a library, and atop the building apartments and offices for Bush himself. The journal *Architecture and Building* believed the project to be

> the beginning of that effort which must be made by our manufacturers to absorb our greatly increased production and hold our share of the world's markets. Efficiency and economy must be developed to a very high design to accomplish this end, and the Bush Sales Building epitomizes that idea.[59]

To fit this "very high design" within a mid block lot only fifty feet wide by 200 feet deep, the project necessitated the design of a 420 foot skyscraper, one that would loom over low rise neighbors along Forty Second Street between Times Square and Sixth Avenue [figs. 23-24]. Despite the fact that neither Corbett nor Helmle had any work with high-rise buildings, Bush entrusted the Brooklyn architects to design what surely would be one of Manhattan's most prominent towers.

What generated further acclaim for the Bush Terminal Building, as the commission was known, was its timeliness as one of the first tall buildings erected after passage of the 1916 New York City zoning laws.[60] Those ordinances were designed to guarantee that skyscrapers would not completely block light and air from reaching the streets below, or even from reaching other tall buildings nearby, as was the case among the crowded towers of the financial district. To achieve this protection the laws restricted the bulk of tall buildings, mandating that on any given building, the front was allowed to rise only to some factor of the adjacent street width, a height that varied by district from one to two-and-one-half times the width of the street. Above that terminal vertical height, the building had to remain behind a "sky exposure" plane, drawn from the middle of the street through the de facto cornice line [fig. 26]. Exceptions to this setback limit came in two forms, both intended to protect architectural forms typical to New York. First, dormers were permitted above sixty percent of the first setback, continuing the custom of gabled architecture that had shaped buildings on Manhattan since the island's early days as a Dutch possession. Second, and more important to the development of the skyscraper, was an allowance in the New York ordinances for a tower of unlimited height to rise over twenty-five percent of any building lot, a proportion remarkably similar to the design of the phenomenally popular Woolworth Building.[61]

Because Corbett filed plans for Bush Terminal several months before the zoning laws took affect, the building itself actually did not fall under the new regulations.[62] But since the building was among the first skyscrapers with setbacks—nominal as they were—erected after passage of the laws, it was perceived to be a model of the new architecture required by the zoning ordinances. For example, an editorial note to a 1923 article by Corbett on zoning and architecture believed that "certain features of this important structure [the Bush

Terminal building] no doubt suggestively influenced the present development of the stepped back type of tall building."[63] Corbett himself had wanted the building to be a model, although not of architecture under the zoning ordinances; the Bush Terminal Building seemed to him the opportunity to create an archetype for the infill skyscraper, a building type with few standout representatives. Specifically, Corbett

> wanted to make the structure a model for the tall, narrow building in the center of a city block. We were determined it should be a thing complete in itself, with fine, clean, uprising lines; a building that could be looked at from every angle, sides and back as well as front, rather than a long peppermint box on ends with holes punched in the sides for windows and a stray gumdrop on top by way of a water tank.[64]

Corbett indeed created a model skyscraper, melding several recent design ideas as well as his own innovations into one of New York's first infill skyscrapers, and certainly the first infill skyscraper designed, like a tower, to be viewed from all sides.[65]

As the Bush Terminal was the highest building erected thus far on so narrow a lot, Corbett and Helmle had to grapple with a host of design challenges, foremost of which was the possible erection of tall buildings on neighboring lots, which could entirely block any windows on the Bush building's sides. Corbett directly addressed this challenge by erecting unprecedented thirty-story party walls, free of windows, for the sides of Bush building, bluntly expressing in the process both the building's height and its situation as an infill structure.[66] The only structural relief to these blank surfaces was a shallow channel running up much of the east wall, that until covered over by neighboring buildings would offer bathrooms in the middle of the Bush tower the access to light and air mandated by building code [figs 25,27]. This choice to almost completely abandon side fenestration for most of the

building's rise was made possible by one important factor: the building's use as a display center for wholesale goods. Since predictable artificial light was preferred over natural light, Corbett was freed from the need to open the side walls for windows. Only on the topmost floors, where Bush would locate his personal offices, did Corbett chamfer the building's corners and step the fenestrated walls in from the party walls below to allow for unblocked side windows and improved views of midtown Manhattan.

The immediate praise that the Bush Building generated upon completion was lavished in no small measure upon its Gothic dressing, a stylistic treatment far from Corbett's experiments in industrial minimalism, but one linked inextricably to the "modern" tall buildings of the nineteen-teens by the popularity of Cass Gilbert's gothicizing Woolworth Building, completed in 1913. The choice of Gothic for the building's exterior was corroborated by Irving Bush's fondness for things medieval in style (he owned a townhouse designed in an Elizabethan mode, and his lower Manhattan offices were Dutch Colonial); for him and thus for Corbett there was really no question that the skyscraper would emulate a suitable medieval archetype, the Gothic tower.[67]

Accordingly, the front and rear facades of the Bush Terminal Building were articulated in a soaring but somber "Girder Gothic": piers and mullions surged out of a three-story masonry base decorated with pointed arches, iron tracery, and corbel figurines [fig. 28]; they climbed unhindered past recessed spandrels and windows from the third to the twentieth floors; they continued through the horizontal bands around the twentieth and twenty-second floors and on between decorative lanterns through the building's chamfered upper stories; and finally, at the twenty-seventh story, the vertical lines terminated in the heavy band of pointed tracery that surrounded the base of the building's upper set back.[68] In total, the tower shaft ran

320 feet between base and crown, a height more than six times the width of the base. While the slenderness of the street and rear facades certainly impressed one with the desired feeling of soaring height—an effect intensified by other Gothic-inspired detail that gradually decreased in size as retreated from the ground—they were too slender by themselves to fill the more solid proportions of a Gothic tower. Corbett instead had to proportion the broader side elevations of the Bush Terminal to match Gothic precedent, thereby determining the tower's depth as much by aesthetic measure as by the practical need to ventilate the tower with only front and rear windows.

The building's high visibility from Times Square immediately to the west and Bryant Park just to the east mandated that Corbett pay careful attention to the imposing blank side walls; he did so, employing on them the building's most innovative features. One of these was the decoration of the party walls with "shadowed brick," a sort of masonry trompe l'oeil of adjoining lines of dark and light bricks set amidst a plain background. The sharp color contrasts mimicked ridges and shadows, creating the illusion of Gothic ribs on the building's side walls and continuing around the building the quick rhythm set by the street facade mullions.[69] The narrow light court on the east wall further relieved that otherwise flat facade: appearing as if chiseled from the side of the building between the horizontal cross braces, this powerful void implied a greater wall thickness by reading as a vertical series of sculptural niches in a solid wall. Near the top of the Bush building, chamfered corners made upper floors look as if they had been set back, even though they really were not, an effect that eased visually the rapid ascent of the building shaft. Corbett used the building's only real setback to distinguish the three highest floors, which, with their octagonal plan, double-height arched windows, and steep finial topped roof, together resembled a miniature Sainte-Chapelle come

to rest atop a skyscraper base.[70] Corbett had wanted this crown to be "an appropriate finish for the top," giving the building "the appearance of a soaring cathedral tower"; to finish the effect, he had the upper floors lit at night with floodlights, a practice unusual for office buildings of the time [fig. 29].[71]

After its completion in late 1917, Bush Terminal building garnered considerable attention in the popular press as well as in the architectural community. Matlock Price commented in *Century* magazine that the building possessed "one of the finest silhouettes of all the tall buildings of New York....[expressing] an authoritative quality of ruggedness which is true to the spirit of Gothic architecture rather than to any mere skyscraper example of the gothic form."[72] *Vanity Fair* glowed "this neo-Gothic structure is simple, graceful, and satisfying. It is indeed, one of the truly beautiful things in the city and marks a further step in the artistic development of the tall building."[73] Orrick Jones of the *New York Times* raved that the tower was an "exquisite, virginal creation. Who that has seen that tower with its gleaming top, after dark, has not thought of youth—lithe, upstanding, irresistible youth!"[74] The expected stylistic comparison came from *Architectural Forum*, which stated that the Bush Terminal Building "held the same high place of architectural esteem in the Forty-second Street district as does the Woolworth Building in lower Manhattan."[75] Talbot Hamlin, one of the generation's leading architectural critics, would write as late as 1926 that "The Bush Building strikes at the heart of modern sky-scraper design," a lasting reputation confirmed by Fiske Kimball's praise of the building in his 1928 survey of *American Architecture*.[76]

While such words about the Bush Building must have pleased Corbett, no amount of laudatory ink could approach the honor of celluloid immortality bestowed the tower in 1933. That year, for the musical *42nd Street*, Busby Berkeley

choreographed a spectacular finale that featured the buildings of New York skyline clustered on a giant staircase, tap dancing to the film's title song [fig. 30]. And in that chorus line of flashy new skyscrapers, swaying to and fro just right of center, the old Bush Tower proudly hoofed away.[77]

iii. Shaping the skyline

As if to emphasize his successful return to Manhattan and his rising reputation in the architectural world, Corbett moved the offices of Helmle & Corbett to a new location made available by Bush on the top floor of the new Bush Tower. There, Corbett could "look off and watch the fulfillment of his prophesy."[78] He did not have to stay at his window very long. Shadow brick party walls appeared as soon as 1919 on the neighboring Wurlitzer Building by Maynicke & Franke, and they continued to spread about the Times Square area [fig. 31].[79] Across Forty-Second Street, the equally narrow Remington Building (circa 1920, architects unknown) aped the Bush Tower's unbroken vertical lines, shadow brick, and gothic details, but its crude setbacks and overall awkward composition disrupt any sense of architectural dignity.[80] In the larger context of the development of a modern skyscraper form, Corbett himself rightly indicated in an essay on architecture for *Encyclopaedia Britannica* that the Bush Terminal Building's provided the aesthetic transition from the historically grounded skyscraper tower, like Gilbert's Woolworth Building, to the freer skyscraper adaptations of these styles in towers like Raymond Hood's American Radiator Building of 1924 [fig. 33].[81] Hood (1881-1934) in fact knew the Bush Building well, since his office was only two blocks east of it on Forty-Second Street, and his designs for both the Radiator building and his winning entry

in the 1922 Chicago Tribune competition recalled the Bush Building's chamfered corners and its proud stance as a tower meant to be viewed from all sides.

Corbett's "prophesying" took a more active form as well. The success of the Bush Building positioned the architect as an expert on tall buildings and their relationship to the recent zoning ordinances, a position only strengthened by the many articles he would write on the subject. In such pieces as "High Buildings on Narrow Streets," "The Planning of Office Buildings," and "The Birth and Development of the Tall Building," Corbett addressed for fellow architects the mundane specifics of fitting tall buildings to zoning laws, or planning rentable space for the largest return on an investment.[82] In a series of three articles on skyscrapers for *The Saturday Evening Post*, Corbett professed to demonstrate "how important architecture is in modern life," and "that the architect is no impractical dreamer, but an artist and a man of the world combined."[83] But he also belied his real intent: "The trouble is the architect is too busy with the thousand complexities of his profession to indulge in any gilt-edged ballyhoo in the public prints....It is high time the American architect found a Barnum to put him on the front pages of the daily press."[84] The gregarious Corbett filled exactly that role of architectural barker. In newspaper and magazine articles throughout the nineteen-twenties and thirties, he tirelessly called public attention to the wonders of American architecture both built and, even more tantalizing, yet to come.

In articles aimed at his fellow professionals, Corbett's theories of how modern architecture might be improved never failed measure against the twin touchstones of "Beauty and Economics" he had spelled out in his early writing. Particularly during the heady commercial milieu of the nineteen-twenties, the business aspects of architecture almost completely preoccupied his conception of the skyscraper. "Has not architecture usually reflected the spirit of the time?"

Corbett demanded in a review of the Hood's American Radiator Building.[85] "What is the prevalent atmosphere? What is the dominant characteristic?" With unwavering conviction, Corbett answered his own question:

> Our modern civilization...is founded upon the idea of service to many. The mainspring of that service is advertising, by which commodities, works and service of all sorts are sold to the many. Advertising, exploitation, publicity, by whatever name you call it....it is the animating agency behind the commercial age.

Hence,

> it would be strange indeed if architecture were not influenced by this spirit, particularly in the United States where architects have evolved a type of building—the city skyscraper—so daring, so virile that there stands nothing else like it in the world. It stands unique among edifices. It proclaims to all the triumph of industrial efficiency. It came into being, new, startling, radical, the spontaneous expression of great industry serving the many.

And therefore:

> If commercialism is the guiding spirit of the age, the building which advertises itself is in harmony with that spirit....There is no reason why the term "commercialism" should ever be considered as opposed to art. Perhaps a new type of commercial architecture will be developed. Perhaps architecture will make a great step forward in interpreting commercialism in its new and higher relationship to human welfare.

The new type of commercial architecture that Corbett imagined was slow in coming, despite the fundamental reshaping of architectural forms by commercial forces, via the New York Zoning Ordinance of 1916. Architectural critic Dewitt Clinton Pond could look back in 1926 to write, "not more than one percent of the architects in the greater city had any real knowledge of the effect of the zoning law

on design and particularly on the shape of the skyline."[86] The earliest attempts to flesh out the law's full allowances were hindered by the fact that the only existing architectural guidelines were the collection of line diagrams George Ford had prepared for the original zoning commission, and those figures recorded the restrictive effects of the new laws more than they considered their full formal possibilities [fig. 26].[87] Accordingly, structures like Warren & Wetmore's Hecksher Building of 1922, designed right after the ordinance took effect, emulated the blocky character of Ford's diagrams [cf. fig. 32].[88] One of the few architects who did grasp the magnitude of the change imminent under the new zoning was John Taylor Boyd. In 1920, he forecast the consequence of immense scale that the would result from the desire to build the largest possible skyscraping towers, which could cover only a quarter of any site. Yet even while Boyd observed that because of the zoning ordinances, "the older conception of a city as a formless, unrelated mass of city blocks, growing as it will...no longer serves," he failed to recognize that the means of this restructuring could be the block-sized skyscraper.[89]

Boyd's hunches remained unexplored for two more years, until sometime in late 1921 or early 1922 Corbett initiated with architectural delineator Hugh Ferriss (1889-1962) their momentous "Study For Maximum Mass Permitted by the 1916 New York City Building Zoning Resolution," the first exploration of both the absolute envelope of building permitted, and of the architectural forms financially practical, under the zoning regulations [figs. 34-37]. Introduced in February 1922 at the annual exhibit of the Architectural League of New York, and widely exhibited and published thereafter, the theoretical models that Corbett developed and Ferriss rendered in a striking chiaroscuro, codified the developing setback skyscraper form.[90] As the study supposedly was guided by only the indiscriminate forces of regulation and economics, the resulting hypothetical models continued to justify to

American architects throughout the nineteen twenties and thirties the typological supremacy of the setback form. Moreover, the fantastic scale of the conceptual building in the study, á la Boyd, inspired a wave of urban visioning that swept New York architects—and even some of their unadmitting European counterparts—through the interwar years upon the notion of the colossal skyscraper as the solution to the problems of urban growth.

From the initial determination of maximum envelope of building to the project's culmination in a buildable setback form, Corbett divided the zoning study into four distinct stages. The first of these stages depicted the full zoning envelope, which Ferriss best defined as "a shape which the Law puts into the architect's hands. He can add nothing to it; but he can vary it in detail as he wishes. It is a crude form which he has to model" [fig. 34].[91] The crude form chosen by Corbett encompassed a standard city block—200 by 600 feet, bordered on the short ends by wide avenues and on the long sides by narrow cross streets. Corbett configured his mass for the highest density zone, the "two-times" height district, where buildings were allowed to rise twice the height of the bordering street before veering back. Accordingly, the form's mid block walls rose one hundred feet, while the avenue faces and adjoining side street walls soared two hundred sheer feet above sidewalks. Exceptions for dormers allowed portions of those walls to climb even higher yet, giving the block an almost crystalline surface texture. Sloping inward from all sides, the setback planes cut de facto cornice lines and converged in triangular peaks. And above the heart of the mass, covering the maximum twenty-five percent of the total base area, a tower surged to unlimited heights.

To arrive at the second stage, Corbett chiseled out of the lower sides of the block the shafts necessary to allow light and air into the building, proportioning them by means of a standard formula—that daylight sufficient for indoor work could

penetrate the floor to a depth no greater than two to three times the height of the ceiling [fig. 35].[92] As these exterior wells obviated the need for the standard interior light courts, which would have cut down through the higher building core, they afforded a more efficient distribution of the building mass than was customary. Stage two also depicted, in Ferriss's renderings, Corbett's Bush Terminal Building, situated to the left and rear of the hypothetical mass as an indicator of the enormous scale of the hypothetical zoning envelope.

Progressing to the third stage, "for practical reasons we begin to straighten up these sloping walls," Corbett wrote, "and for structural reasons we cut off the tower at a height that is possible" [fig. 36].[93] Yet the ensuing tiers of setbacks did not prove to be a finished form. "The 'steps,' because of their multitude and their comparatively small dimensions, would not prove an economical venture in steel," Ferriss noted; moreover, "the uppermost steps are of too small area to be of use. . . the remaining rentable area would not justify the expense of building."[94] Excising those parts of the structure, Corbett and Ferriss arrived at stage four, the maximum mass allowed by the zoning ordinances as tempered by economies of construction [fig. 37]. In Corbett's words, he had designed "the possible structural bulk which can be lighted by daylight and that contains all the floor space worth enclosing."[95] In practical terms, he had conceived both a completed skyscraper form, ready to be dropped down on any waiting city block, and an entire skyscraper design process, by which other architects could easily generate their own setback arrangements for buildings of different base areas or height restrictions. In Beaux-Arts compositional terms, he had clarified for skyscraper architects a new building type, one seemingly preordained by the unfailing forces of law and commerce.

The stunning yield of the collaboration between Ferriss and Corbett reflected the synergistic relationship between the two. Neither had produced anything like the zoning studies before, and the work of both was indelibly marked by the study after. Ferriss had gotten one of the first architectural commissions of his career, from Corbett, just the year before, in 1920. The series of renderings Ferriss provided Corbett were rich in line work and architectural detail, a style representative of the renderer's earlier output, and complemantary as well of the ornamented character of Corbett's work of the time [fig. 38]. Ferriss's drawings also revealed his developing ability to underscore volume and mass by means of stark plays of light and shadow, a talent that prompted Corbett in 1921 to invite Ferriss to join him in a study of the zoning ordinances. Ferriss recalled the first meeting on the subject:

> On the walls were a series of drawings; not designs, but simply diagrams in perspective of the exact masses dictated in various situations by the laws. The attitude of the architects was not one of hostility. They did not seek to evade in any sense the surprising forms before them. They accepted and analyzed them, their effort being to determine the most practical method of expressing their nature in structural form.[96]

Such were Corbett's contribution to the project: the spatial problem-solving abilities of a successful architect; a real estate acumen that would ground the project in at least some plausibility; and a step-by-step rationality that valued process as well as result. Ferriss, by contrast, translated Corbett's analytical schemes into a focused, readily comprehensible image of a building. As importantly, he infused that visual form with the grandiose aspirations and the mythical trappings of a bona fide vision—the look of a sacred mountain, the visible triumph of human artifice over this sanctioned form, and the benediction granted by an ethereal light, which

bathed the first stage from above and then shifted by the final stage to an origin within the mass itself.[97]

The results of Corbett's and Ferriss's work did not go unnoticed. The same drawings displayed at the Architectural League show were exhibited in several midwest cities, including Detroit and Chicago, where they may have been seen by some of the architects preparing submissions to the Chicago *Tribune* Tower competition.[98] The four stages appeared in several *New York Times* articles throughout the early twenties, a 1923 article in the architectural journal *Pencil Points*, and in Corbett's *Saturday Evening Post* series of 1926; most architectural books published in the twenties included the study as well.[99] The drawings themselves resurfaced in two separate shows in New York, one for the Anderson Galleries and another for the "Titan City" show at the John Wanamaker department store, as well as exhibitions in a number of European cities.[100] Perhaps their most convincing appearances were those accompanied by Corbett himself, who frequently addressed architectural meetings of all sorts during the nineteen twenties on the topics of skyscraper design and zoning laws. "By cinematographic view of some wonderful Hugh Ferriss drawings," enthused critic Kenneth Murchison, "[Corbett] demonstrated how the zoning laws give you your mass and how that mass is oft times so good that you don't have to thumb through your Meyer's handbook for ornament to plaster on the street front."[101]

In fact, one of the most dramatic effects of the zoning studies was to demonstrate to the architectural community, "that there is something besides a [street] front," as Corbett noted.[102] "The fact that they get these set-backs," he continued on the subject of stepped buildings, "that they have to look at the upper stories of their buildings, has resulted in their studying those things from every angle." Such an approach to tall building design, embodied in the volumetric

design process of the zoning study, reaffirmed the inclination of these Beaux-Arts trained architects to work from the outside in—focusing first on qualities of massing and form suitable to the building type, and only thereafter configuring the facades and interior plan. In essence, an architect working with freestanding towers of the sort in the zoning study became in Corbett's words "a sculptor in building masses"; a description fitting Ferriss's description of the zoning envelope as "crude clay for architects." [103] The reality of their descriptions was evidenced by the technique of Raymond Hood, who for his later buildings, including the Daily News Building (1930) and the RCA Building of Rockefeller Center (1933), cut their forms out of clay models of the zoning envelope before any plans were drawn [fig. 39].[104]

A more visible effect of the zoning studies was the promulgation of the stepped tower as the predominant building type in New York City. The "stacked-box" or "wedding-cake" morphology of the setback skyscraper provided common aesthetic ground between such functionally diverse structures as the theater and apartment filled Roerich Museum and Master Apartments of 1928-1929, by Corbett and his partners, the bank and financial offices of Ralph Walker's Irving Trust Building, 1929, and Schultze and Weaver's Waldorf-Astoria hotel of 1930-1931 [figs. 40-41].

Ironically enough, within months of the February 1922 debut of Corbett and Ferriss's work, their study was overshadowed by the meteoric success of its morphological doppelgänger: Eliel Saarinen's setback tower entry for the 1922 Chicago Tribune Building competition [fig. 42]. Designed in the far reaches of Finland by an architect who had never been to the United States, Saarinen's entry was conceived entirely apart from Corbett, the New York Zoning ordinances, or any current developments in American architecture.[105] Yet working only from minimal competition guidelines—which included a Chicago building ordinance requiring a

setback at 200 feet, and the looming Tribune mandate to "design the most beautiful office building in the world"—the Scandinavian architect brought forth a sumptuous tower, one that captured in an elegantly restrained setback form the soaring ideal of the skyscraper. By contrast, Corbett wholly failed to grasp the applicability to the Tribune competition of the setback forms he was preparing with Ferriss; he submitted to the same competition a wedding-cake like heap, its skyward reach smothered under gothicizing ornament [fig. 43].[106] The fact that Saarinen's unequaled design placed second to a gothicizing tower, the entry of Raymond Hood, remains one of the better-known circumstances of modern architecture; the fact that Saarinen's setback form appeared after that of Ferriss and Corbett has generally been overlooked by critics and historians, who often have reported the New York study as derivative of the Saarinen Tower.[107]

What set apart Saarinen's tall building model from that of Ferriss and Corbett, and perhaps the reason why Saarinen's has received greater attention, was its comprehensive exterior treatment. By carefully arranging decorative elements like mullions and finials to articulate, but not mask, the building's elemental form, Saarinen offered the architectural community a complete skyscraper archetype. Aside from vague similarities to the "girder gothic" idiom in the delicacy of ornament, the aesthetic of Saarinen's entry was, by all contemporary judgments, unprecedented: "the Finnish master-edifice is not a lonely cry in the wilderness," declared Chicago architect and skyscraper pioneer Louis Sullivan (1856-1924), "it is a voice, resonant and rich, ringing amidst the wealth and joy of life. In utterance sublime and melodious, it prophesies a time to come."[108] Indeed, Saarinen had posited not only an inventive tall building form, but an entire style congruous to it.

In contrast to this fully exemplar design, the first versions of Corbett's and Ferriss's zoning study advanced only solutions of raw form, none of associated finish. Corbett at that time perceived skyscraper composition and decoration as disconnected matters, telling students in a Columbia design class, "if you dress a Chinese in western clothes he is still an Oriental. So what difference does it make if we dress a structure like the Woolworth Building in Gothic clothes? It is still a modern skyscraper."[109] Accordingly, the concluding illustration in the zoning study circulated in 1922 proffered a blank mass, relieved on the surface solely by signs of construction work amidst its highest reaches [fig. 44]. Only after the appearance of Saarinen's Tribune entry, in autumn of that year, did Corbett and Ferriss return to their setback form to devise for it a fifth stage of possible exterior treatments.

The resulting two schemes, published in the 1923 *Pencil Points* article, disclosed the remarkably different responses by architect and illustrator to the question of skyscraper style.[110] Like Saarinen, Ferriss emphasized the sculptural qualities of the setback form in his fifth stage proposal, titled "the Four Stages" [fig. 45]. But the renderer carried ornamental restraint much further than his counterpart, articulating the buildings solely with stark vertical strips of recessed spandrels and incised window openings. The effect was one of severe geomorphism, his building appearing as a monolithic peak hewn from an urban range of mountains. Corbett, unlike Saarinen or Ferriss, continued his conspicuous ambivalence on the issue of exterior arrangement. On the one hand, he proposed a fifth stage of the zoning mass with each setback bedecked in Greek Doric temple fronts, resolving the whole as a kind of fantastic acropolis [fig. 46].[111] "It happens that we have chosen a solution along modernized classic lines," he demurred, yet, "an equally interesting solution might be had with Gothic inspiration."[112] On the other hand, Corbett recognized in the same paragraph that

"one might leave the whole thing untouched," as Ferriss had done, "depending upon the pleasure to be derived from contemplating the masses of these forms." In an article of that same month for the New York Times, Corbett referred to that effect of untrimmed setbacks as a "skyscraper style," acknowledging his growing appreciation of such an unconventional architectural finish.[113]

As Carol Willis has pointed out, the vast difference between the original zoning line drawings that Corbett himself cited in 1921, and the masses rendered by Ferriss in 1922 and then 1923, shows how far their respective architectural ideas had progressed.[114] Ferriss, after 1922, would rely ever more on the technique of rendering buildings as impressionistic volumes, in effect stripping buildings down to the rudimentary forms that fit his own ideas of an appropriate skyscraper aesthetic.[115] As for the project's influence on Corbett, the architect himself noted of the final study, "the drawings have had the curious effect of opening [my] eyes to the hitherto unsuspected possibilities of beauty of mass and proportion."[116] Not surprisingly, his designs increasingly would emphasize mass, particularly in vertical arrangements, and would decrease in ornament. Together, the pair would continue to influence each other's work throughout the nineteen twenties, collaborating on futuristic traffic separation studies, a biblical reconstruction, and on final renderings of Corbett's commissions.

iv. A "Modernized Classic"

At the same time that Corbett was preparing the zoning studies for New York, he was regularly commuting to England. Irving Bush, pleased with the Bush Terminal in New York, had retained Helmle & Corbett to design and build a

commercial block of a size unprecedented in London. While the Bush Tower in New York had been a thirty-story skyscraper considered the cutting edge of design, the Bush House in London, designed between 1918 and 1920 and built between 1920 and 1927, offered Corbett the chance to work on an entirely different type of commission. Located on a semicircular island between the Strand and Aldwych Streets in the heart of London, the projected building would enjoy outstanding sightlines down the neoclassically-fronted Strand to the east and along the intersecting Kingsway to the north. Challenging the architects further, a structure of the size desired by Bush threatened to overwhelm by its sheer mass James Gibb's charming St. Mary-le-Strand church (1714-1717)—an "architectural jewel casket," as Corbett referred to it—which occupies a small mid-Strand sliver immediately in front of the Bush site [figs. 47-48].[117]

In all regards, Corbett admirably handled the design task before him. By dividing the project into three distinct buildings, each more comparable in size to surrounding office blocks and St. Mary-le-Strand, the architect shaped the entire Bush House to the scale of its neighbors. Likewise, with exteriors dressed in a spare neoclassical fashion—termed by Corbett a "modernized Roman classic"—the Bush House echoed the Adamesque facades of the area [fig. 49].[118] On the central building's main front, a great recessed arch pushed upwards into the cornice line, forming a monumental entrance as well as an apsidal termination of Kingsway. By contrast, the opposite Strand facade presented only a low arch and plain walls, so that this larger building would "enhance the appearance of the smaller [St. Mary-le-Strand church], providing it with a restrained architectural background that throws its delicate beauties into stronger relief" [fig. 50].[119] All three blocks of the Bush House climbed nine stories to reach the maximum eighty-foot cornice line allowed by London law, and the center building further exploited a

clause permitting two roof stories. And to maximize the building's prominence, Corbett placed atop that central block an oversized lantern tower, with an observation deck, that required special permission to soar 300 feet above London's low skyline. All told, he gave London the "the largest such structure in England built in modern times," as well as its tallest commercial structure.[120]

Viewed as a whole composition, the Bush House offered a far more successful tripartite arrangement than Corbett's similar Springfield Municipal Group. Gone was the disjointedness between tower and buildings; instead, the London group read as a stately ensemble, one that was able to tower over its neighbors in a dignified manner. As Henry-Russell Hitchcock has observed, "Helmle & Corbett's Bush House, rising between the Strand and Aldwych, has a clarity of form and a sense of urbanistic responsibility that few comparable buildings of its period designed by leading British architects display."[121] The British architectural community was sufficiently impressed by Corbett's achievement to honor him with a Fellowship in the Royal Institute of British Architects, one of the few bestowed upon an American, as well as the first foreign membership granted to the Architectural Club of London. Further British recognition came from Liverpool University, one of England's leading architectural schools, which awarded Corbett its newly-created Master of Architecture degree in 1925.[122]

The Bush House was by no means the only mid-career instance of neoclassically inspired design by the architect. As he had done for his earlier buildings with Pell, Corbett continued to employ freely elements of classical design on certain projects he undertook with Helmle, particularly for monumental works that traditionally called for such treatment. A 1919 design for "The Arch of Democracy," which commemorated those Long Islanders involved in the First

World War, proposed an oversize and overly decorated copy of the Arch of Titus across Brooklyn's Flatbush Avenue at its entrance into Prospect Park [fig. 51].[123] For a 1925 submission to the New York State Roosevelt Memorial competition, Corbett reworked the giant recessed arch scheme of the Bush House, substituting in place of the paired columns and lintel of the London design a single column topped by a statue of the New York born President.[124] With the Stambaugh Memorial (dates unknown) in Youngstown, Ohio, Corbett completed the exterior of a civic auditorium in a Greek motif, including a temple front placed awkwardly to the far side of the building's front [fig. 53].[125]

Corbett's versatility included the ability to recycle the Beaux-Arts forms he had studied in Paris. For example, a courthouse competition for Hartford County, Connecticut, solicited from Corbett a sharply neoclassical entry, with blank walls framing a spare pediment and rotunda drum above [fig. 52].[126] Inside, the rotunda served as a rough hinge point for the building's angled wings, a device that recalled the Prix de Rome entry of Pascal, Corbett's patron at the Ecole. Likewise, Corbett employed in the elevation and plan for this project the Beaux-Arts rendering techniques of crisp delineation, elegant shadowing, and lush surrounding vegetation. Other projects for which Corbett produced overtly Beaux-Arts designs included an entry for the Museum of the City of New York competition of 1928; twin office blocks for the Crum and Foster Company in Atlanta, Georgia and Freeport, Illinois, both built from 1928-1929; a remodeling of the Plaza Trust Company in New York City in 1929; and an undated and unnamed project for a stiff and lifeless tower, under which a base of semicircular halls and oval salons was arrayed around a central rotunda in a manner similar to the late eighteenth century French architecture Corbett would have studied at the Ecole [figs. 54-55].[127]

Corbett's lingering reliance upon classical precedent by no means contradicted his position as a leading theorist of modern architecture. Throughout the interwar years, Beaux-Arts trained architects continued to dominate the profession, particularly in New York City where organizations like the Society of Beaux-Arts Architects continued to promote the Ecole and its methods. Most of these French-trained architects, like Corbett, did not view modernity and classicism as mutually exclusive expressions, but rather believed modernity to be a spirit that could express itself in any style. Talbot Hamlin offered a contemporary explanation of the continuing popularity of traditional architectural styles:

> Style freedom will not mean the necessary abandonment of all the forms the past has given us. . . . Forms which men have loved through the centuries will not pass away because of the threat of a theory, nor will reverence for them prevent the creation of new forms. The questions that will be asked of the details of a building in the future are not, is it correct, is it old, is it new, but rather, is it a natural, inevitable result of its place, its function, and material; and above all, is it beautiful, does it speak deeply to the emotions as all great art must?[128]

Hamlin's words captured the "sense of the Classic, broad and severe" that Guadet had impressed upon Corbett and his peers at the Ecole, and that Corbett and his American counterparts applied to their designs in America. It also was no coincidence that many of Corbett's classically-inspired designs were for memorial or municipal edifices; until the ascension of modernism after the Second World War, monumental architecture remained almost entirely within the domain of classicizing design. Corbett, an imminently practical architect, designed buildings in the manner most likely to win him a commission.

Aside from the Bush House in London, which was the largest commission landed by Helmle and Corbett in the slow building years immediately following the First World War, the most ambitious project tackled by the firm during the early twenties was that of another massive classically inspired monument, the George Washington Masonic National Memorial [figs. 58-59]. Located atop the highest hill in Alexandria, Virginia, this unusual wedding of setback tower and neoclassical base was intended to stand as a twentieth-century facsimile of one of the seven ancient Wonders, the Lighthouse at Alexandria, Egypt. This guiding inspiration had come from Frank Helmle, who, in a chance meeting on a Washington—New York train, proposed the lighthouse motif to the mason just delegated from Alexandria to secure a New York architect for the fledgling project. Helmle's proposal was enthusiastically received by the Alexandria lodge, and in late 1917 they approved the conception drawings fashioned by Corbett after Helmle's idea [fig. 60].[129]

While the memorial base and grounds eventually would be built in accordance with the early plan, the tower would undergo a marked change. The 1917 plan featured a tower composed as a stack of three temple blocks, each predominantly horizontal in composition, which together conveyed an impression of graceful ascent, one that eased to a stop at the shallow pitched roof atop the crowning block. Certainly the overall arrangement was of dubious authenticity as a recreation of the lighthouse, but the basic units of composition, the temple blocks, bore some historical plausibility and conveyed a modicum of dignity and a reserve appropriate to such a memorial structure. Then, sometime between 1925 and 1927, when construction on the superstructure began, Corbett changed the tower. Thinning and heightening the shaft, and topping it with a steep pyramidal crown, he

changed the look of the tower from one of quiet repose to one of vertical reach, in feel a skyscraper surging out of the memorial's base [fig. 61].

To modern sensibilities, Corbett's application of a form so obviously modern as a skyscraper to a design so ostensibly archaeological as an Egyptian lighthouse seems bizarre in the least. As inappropriate, seemingly, was his choice of a form so intimately associated with commerce and industry for the predominant feature of a memorial building. Yet to architects and critics of the nineteen twenties, the stepped skyscraper form was increasingly seen as a modern reincarnation of ancient ceremonial forms. A minority of writers, led by architects Francisco Mujica and Alfred Blossom, pursued a typological connection between the skyscraper and pre-Columbian architecture in the Americas, particularly the pyramids in Mexico and Guatemala. But to most observers, the skyscraper was seen as a reincarnation of the Tower of Babel, eminent proof of a newly emerging American Babylon. The lack of historical connection between myths of Babel and Babylon made no matter to twentieth century writers; the plurality of voices that accompanied the Tower of Babel translated itself into a multitude of myths that swirled about the modern stepped form.[130] Front and center in this urban mythography was Corbett, who at the same time that he finalized the design of the masonic monument tower, was completing an architectural reconstruction of the biblical Temple of Solomon, that divine distillation of architectural form. Similarities between the temple and the masonic memorial, which itself was not lacking in mythic pretension, were uncanny; not surprisingly, the memorial as finally configured by Corbett received an iconography as rich in biblical myth as in masonic rite.

v. Metaphoric Myopia: Contemporary Babylon

The idea of America—and particularly of New York City—as a modern Babylon had been committed to print as early as 1820, when the fictional Diedrich Knickerbocker dated the discovery of America to Noah, "at the time of the building of the tower of Babel," and had one of his heroic characters exclaim upon founding New York, "we will build here for ourselves a city and a tower whose top shall reach into the sky."[131] Dutch architect Hendrik Berlage, traveling to New York almost a century later, penned a common opinion of the city's rising skyscrapers, "they seem a consummation of a dream / Of Babel's towers, these buildings that arise / And towering seem almost to touch the skies."[132] Following the lineage that Babylon had been the first worldly city and Rome the successor, New York was seen to be its logical culmination.[133]

The round of Babylon mythologizing that marked the twenties and thirties was launched by the New York Times, which observed in a 1920 editorial entitled "Towers of Babel":

> New Yorkers who have seen the first buildings of the new type approach completion have been surprised to find that our native architecture has reproduced exactly one more ancient and foreign type—the Babylonian ziggurat, or temple tower of stages. And this is not merely another addition to our historical museum; as economic pressure compels the building of more and more modified skyscrapers New York will become a city of ziggurats.[134]

The tragic lessons to be learned from the tower of Babel myth seemed entirely lost on its modern propagators.

The formal comparison was not lost on the architectural community, and the editorial was reprinted verbatim in an edition of *The American Architect.*[135] The ancient metaphor had became omnipresent by the time Corbett himself used it in the *Pencil Points* article on the zoning envelope development. There, he describing stage two of the study as "vertical [for] part of the distance, sloping the rest of the way, and with a tower which would be the ideal of Biblical days, actually reaching to the heavens, a veritable Tower of Babel."[136] Even Le Corbusier employed the vision as a means of denouncing American architects, as he claimed in the mid-thirties that the skyscraper form would achieve its own style—in spite of American architectural efforts to the contrary—by virtue of the forces of the Tower of Babel myth.[137]

With New York linked inexorably to Babylon, and the Tower of Babel reborn as a set-back skyscraper, only the hanging gardens seemed amiss. And, soon enough, they too were brought into the mythic fold:

> apartments placed on 'steps' will necessarily open onto terraces. The possibilities of loggias, sleeping porches, sun parlors, 'hanging gardens,' &c., are illimitable. It is not an exaggeration to say that a small revolution will be accomplished. . . . 'Landscape Architects' will enter into a new and unique relation with architecture. Gardens will be laid out, not around buildings, but upon them—the cypress grove on the thirtieth terrace![138]

Hugh Ferriss's vision of apartment garden terraces did proliferate throughout New York, resulting in some of the city's choicest residential real estate, and, for a short time during the thirties, a midtown garden atop portions of Rockefeller Center. But ironically enough, "hanging gardens" of the splendor envisioned by Ferriss already

had seen a heyday in New York: the fashionable enclave atop Stanford White's Madison Square Garden, and Oscar Hammerstein's extravagantly theatrical Paradise Garden above the Victoria Theater, not to mention the glassed-over Cherry Blossom Grove at the Olympia Theater and the wonderfully decadent Hotel Astor Roof Garden, all had thrived around the turn of the century, before succumbing in the mid nineteen-twenties to the twin menaces of air conditioning and Prohibition [fig. 64].[139]

Amidst the resurgent fascination of Babylon inspired by setback architectural forms, Corbett undertook in 1925 an architectural reconstruction of a similarly mythical form, the temple and surrounding citadel of King Solomon [fig. 65]. The temple had been understood by both biblical scholars and early architectural historians to be the most perfect building of mankind, designed and ordained by God, a model for architecture itself.[140] While such views had waned in intensity by the twentieth century, the project still held the promise of establishing an authoritative archetype for architecture. More immediately, theologian Dr. John Wesley Kelchner wished to erect the reconstruction in Philadelphia, at the International Exposition of 1926, as a symbol of world peace and prosperity.[141] Kelchner, "who, inspired by religious zeal, has made the reconstruction of the Temple his chief objective in life for over thirty years," apparently chose Corbett to realize his life's work because the architect impressed Kelchner as uniquely able to visualize—as if it were a Beaux-Arts esquisse—the temple's mammoth possibilities. Corbett in turn enlisted Hugh Ferriss to create suitably dramatic final renderings of the designs; Ferriss responded with brooding images of Babylonian grandiosity, complete with Biblical feasts and parading elephants [figs. 66, 68].[142] Ferriss's drawings, published in several journals and shown at the Architecture

League's 1926 exhibition in New York, only fueled further the public fascination with images of New York as a modern Babel/Babylon.[143]

Kelchner provided Corbett with his voluminous studies of the archaeological ruins and Biblical descriptions of the temple, and established with Corbett two basic premises for the forthcoming design: first, that only materials and methods of construction available at the time of the original temple would be employed; second, that only those structures pre-dating the Temple would be used as models. Accordingly, Kelchner could proclaim the Temple reconstruction "correct and accurate in every way."[144] As delivered, Corbett's imaginative Temple took the guise of a ziggurat, correct and accurate in many formal ways to the New York zoning ordinances. Thomas van Leeuwen explained of the mythical confluence, "the shape of the Tower of Babel had infiltrated into the ideology of the Temple of Jerusalem in order to become a set-back skyscraper."[145] Such near interchangeability of forms prompted a description of the Temple's main facade, "[the Great Porch] will rise 300 ft. in white and gold against the sky as a step back tower of majestic effectiveness."[146] The similarity of the Temple reconstruction to some New York skyscrapers was strong enough to be seen as proof positive that Biblical forms had spawned their modern American counterparts, even though the converse was more likely, that modern skyscrapers themselves legitimized the reconstructed Temple and the myth of a modern Babylon [figs. 66-67].[147] The popular comparisons between New York and Babylon architecture would continue through the thirties, most epigramatically in the lobby of the Empire State Building, where a stained glass image of the world's latest Wonder lined up unhesitatingly with portraits of its seven ancestors.

If the Temple of Solomon, as Corbett had reconstructed it in 1925, was indeed an image of divine architecture, then there existed few more eager

recipients of such a structure than the Alexandria Masons, who had dedicated their monument not only to George Washington, but also to "The Great Architect of the Universe." Much of the Memorial had already been set in stone, but the tower could be adapted somewhat to emulate the setback tower form that was akin to the "authentic" Temple of Solomon. Corbett did exactly that. By reducing the depth and increasing the height of each of the tower segments, and by replacing the topmost pediment with a stepped pyramid cap, he completely dissuaded any identification of the tower segments with individual temple blocks. Moreover, by making each section proportionally taller than the one below it, Corbett accelerating the visual pace of the tower's ascent, much in the manner of a setback tower. An exterior observation platform at the tower's highest level completed its affinity to similar commercial forms.

Other details of the Masonic memorial continued the blurring of Masonic rite with Biblical myth. The imposing Memorial Hall, just inside the entrance to the building, was filled with massive granite columns lit from the bottom for an effect not unlike Ferriss's illustrations of King Solomon's temple [figs. 68-69]. Within the tower, various smaller ceremonial rooms were finished in pseudo-Egyptian and Babylonian schemes, complete with lotus columns and decorative hieroglyphic wall paintings. Other rooms were finished in a wide range of styles as a sort of catalogue of architectural history, just as Solomon's Temple contained the roots of all architecture within itself. Similarly, the "House of the Forest of Lebanon" from the Temple found a modern analogue in the "Tall Cedar" room in the highest reaches of the Masonic tower. Furthermore, the building throughout pointedly displayed all five classical orders, an allusion to the perfection of the classical architectural forms which shaped the building's base [fig. 62]. Indeed, the George Washington Masonic National Memorial constituted a confluence of myth, and it

remained throughout the interwar years the most overt example of the Biblical mythography that occupied Corbett and his fellow architects.

As a metaphor of architecture and the urban condition, the Babel/Babylon myth was inherently a double-edged sword, a fact that nearly all architectural mythographers seemed to ignore. Corbett and most other writers chose to interpret Babylonian New York as the dawn of a new era, the opening of an age of knowledge, the triumph of an American cosmopolitan culture beyond even the riches of Babylon itself. In the preface to a 1931 book of New York City sketches by Russian illustrator W. K. Oltar-Jevsky, appropriately titled *Contemporary Babylon*, Corbett exclaimed:

> New York today is an expression of the American spirit of progress and efficiency. It tells the story of the American people, their courage and their permanence. It is a mixture of the splendid and sordid. . . . Viewed from an angle, it acquires a vital interest, ceases to become merely a pile-up of stone, steel, and glass; traffic, streets, and people. . . it becomes a veritable fairy panorama. What was once the dream of Babylon has become reality.[148]

Glorious as such a vision was, it only embraced the part of the ancient legend. Seemingly forgotten was the Babylon of fathomless decadence, a culture doomed to collapse under its own extravagance; likewise editorials neglected to mention that the Tower of Babel had stood as the epitome of hubris, and its erection divided the peoples of the earth.

There were glimpses of the darker sides of these myths. Ferriss's smoldering renderings of the Temple and his Babylonian inspired skyscraper vistas often conveyed an eerie unsettledness, where scenes of endless night were punctuated by garish lights on looming hulks of buildings. Fritz Lang, after visiting

New York, turned the sinister face of the Babylonian vision into his 1927 film *Metropolis*. And even the indefatigably optimistic Corbett could not completely ignore the seeds of destruction implicit in the Babel/Babylon myth. His Temple of Solomon reconstruction for Philadelphia, while a divine archetype and a symbol of world peace, had to be designed "to incorporate in the structure a system of pipes through which, when the building is empty of visitors, it will be possible to force volumes of gas which will envelope the structure to its full height presenting, in conjunction with other means, an impressive spectacle of the destruction of the Temple."[149]

A very real manifestation of the "de-civilization" inherent to the Babel/Bablyon myth, albeit one not explicitely aknowledged as such, was a modern consequence of urban towers: traffic congestion. Not only was Manhattan's population density stunningly high, with 162 persons per acre, but traffic in the streets had become nearly impassable during most of the day.[150] "The tendency of concentration has been carried very nearly to the point of absurdity," Robert Duffus assessed, "it has been carried, indeed, to a point where de-civilization may be said to have set in."[151] Lewis Mumford, one of the more thoughtful critics of the New York scene in his *Skyline* column for the *New Yorker*, pinned the blame for congestion more pointedly: "the skyscraper as an isolated achievement in form is one thing; the skyscraper as a common method of congesting population and ground rents is quite another."[152]

The most heated attacks on the skyscraper as the source of congestion were made by Henry Curran, counsel of the influential City Club, a member of the Mayor's Committee on City Planning and Survey, and a writer of no little fervor. "We burrow under the ground horizontally like moles for miles, and then we turn into a sharp right angle and go up vertically through the dark interior of a vertical

skyscraper. . . . We have reached the limit of this form of municipal stupidity. The skyscraper must go!"[153] Impassioned rhetoric aside, Curran did not seek the total abolition of skyscrapers; "There is a place for skyscrapers that are beautiful," he confessed. Voicing the opinion held by many urban reform groups, including the Municipal Art Society and the Regional Plan of New York, Curran enjoined, "skyscrapers should be kept separated and spaced and kept within reasonable height limits so that human workaday population will be separated, scattered, and decentralized, instead of all pulled into one small spot every morning and from every direction, and then being sprayed out from that same, small spot again in the evening."[154]

Prominent architects of skyscrapers, Corbett included, reacted to the indictment in two ways. One faction, headed by Raymond Hood, appeared to concur with the need to spread skyscrapers apart to reduce congestion. Hood himself offered "A City of Towers," first published in 1927, which would have coupled building volume to street area "so that each building as it imposes additional load on street traffic provides the additional street area to carry it" [fig. 70].[155] In reality, Hood himself was less concerned about abating congestion than achieving an urban aesthetic of separated, needle-like towers, since his proposal stipulated that "a property owner can [only] exceed this volume allowance provided he sets back," a clever circumvention of any absolute control over building volume.[156] Corbett himself offered a "Proposed Separation of Towers," analogous to Hood's model in the wide spacing of towers but differing from it in the critical matter of volume control [fig. 71]; the towers in this 1926 project conformed to the "smallest maximum bulk" suggestions of the Regional Plan models, which Corbett, as the chair of that organization's Committee of Architects since 1923, would have known well.[157] The unusually human scale of Corbett's proposal prompted Rem

Koolhaas to judge, "the random placement of the Towers. . . combined with the intimate, suburban scale of the miniature Skyscrapers makes Corbett's *Metropolitan Suburb* the most appealing version of the tower-in-the-park formula ever proposed."[158]

Such a concession to the idea of congestion alleviation by means of limiting skyscraper size was an unusual one for Corbett; this proposal aside, the architect not only defended the skyscraper against the charges that it caused congestion, he unfailingly championed it as a means of relieving congestion His witty voice was challenged time and again by the thunderous proclamations of Henry Curran, and their harangues shaped the debate on skyscrapers and congestion throughout the later twenties. A typical repartee between the two was encapsulated in a 1927 article by Corbett for the *National Municipal Review*, titled "Up With the Skyscraper," in which Corbett interspersed the skyscraper critic's charges with his own responses.[159] Curran's headlines led off the debate:

> MUNICIPAL MURDER / Killed 54. Wounded Unknown / WHAT NEW YORK DID TO ITS OWN CHILDREN IN JUNE / Latest Casualty List from the Skyscraper-Motor Car Front Along the Sidewalks of New York.

Corbett responded:

> Skyscrapers? Motor-cars? Had somebody's Buick sedan suddenly gone mad, and slashed some innocent creature's throat with a razor? Was it possible that the Equitable Building had been skulking up Broadway o'nights, brandishing a Colt automatic? Then suddenly a chill struck me to the very marrow. Perhaps—just perhaps—one of my own little brood had disobeyed papa and was out painting the town red. If the Bush Building, for instance— But that was preposterous. Of all our little ones, Bushie, as we affectionately call him, is the most serious-minded. He's always home at night working on his arithmetic lesson. . .

Curran's report continued:

> The City Club has already brought figures to light showing the mounting MUNICIPAL MURDER rate of New York, at the hands of the clumped skyscrapers and the packed and pushing motor vehicles that the skyscrapers breed.

Corbett:

> At last the light began to dawn. Somehow or the other the skyscraper was the real villain. The skyscraper had caused the congestion, that narrowed the streets, that filled the subways, that bred the motors, that killed the little children. It sounded suspiciously like "The House that Jack Built.

Curran:

> "What is so rare as a day in June'—without the KILLING of a few children here and there as they skip in their dance of death between the sidewalks of New York?. . . . With a vengeance, this is MUNICIPAL MURDER—because the city can, and does not, scatter the clustered skyscrapers to whose appetites the motor car must minister.

Corbett:

> I was beaten, ashamed, bewildered. Fifty-four little children killed by skyscrapers—or was it June?

After mulling things over, the architect further realizing that:

> the skyscraper had nothing to do with it. . . . In New York's financial district, where the buildings are highest and the streets narrowest, there is actually less congestion that along the shopping and residential streets. . . .most of the traffic is vertical instead of horizontal. . . .[hence] waste motion is eliminated, greater efficiency insured, and traffic greatly simplified.

Although the glib tone of this piece characterized Corbett's writing voice, more indicative of his skyscraper theory was that concluding rationalization of the skyscraper's ability to redirect traffic vertically. Not only would the skyscraper "tend to equalize and distribute the volume of vehicular and pedestrian traffic which flows upon the streets," Corbett first argued in 1924, "it will give a greater population per square mile of city with less crowding than at present."[160] This consequence, improbably as it seemed, would result from Corbett's speculation that "the office building of the future, with one or more city squares for its base, may well be an office building only in part."[161] Applying reductio ad absurdum, and completely unaware of it, Corbett fantasized further:

> These buildings may carry to its logical conclusion our present tendency to distribute urban populations vertically. They would be planned in layers. . . .From the sidewalk to the first set-back, would be office space for business. The first set-back would have a constant cornice line which would be a second sidewalk; on this level, where people could more conveniently about on their errands, would be retail shops. Rising from this district would be a residence tower oriented to receive the maximum of sunshine for its inhabitants, and containing promenades and terraces amid fresh air and sunshine. The dark cores of the buildings would hold elevators and provisions for such forms of indoor recreation as theaters, gymnasiums, and swimming pools, for which artificial light suffices. In such buildings the residents would have concentrated for their convenience the facilities they need most.

Buttressing these arguments of the tall building as a reducer of congestion, Corbett appealed as well to the simple fact of the form's predominance: "if the skyscraper is regarded as a thing of modern invention, I think it has proved its efficiency as a factor in modern business. You can't stop its growth, which is organic and means progress."[162] Following the logic of this architectural

Darwinism, one could only agree with Corbett that "you can't kill off the skyscraper, for it would be against nature and progress....[skyscrapers] may have started as a speculative proposition, but if they had not been found good, they would have died."[163]

As Curran repeatedly countered to all of these points, Corbett's justifications provided scant means to reduce the immense traffic flow—both pedestrian and vehicular—that overwhelmed streets, sidewalks, and subways around tall buildings at the beginning and end of each business day. And Curran was right; the architect's proposals very rarely worked to reduce traffic. Quite to the contrary, Corbett did not even agree with Curran that congestion was something to be reduced; rather, Corbett perceived urban congestion to be a natural and healthy phenomenon. "A city is not just a mass of bricks, stones, streets, and subways," he insisted, "it is an organic-growing thing, with its inhabitants flowing through its veins like the corpuscles in the blood."[164] As for the consideration of the human corpuscles, the architect rationalized: "cities are built because people like to be together. They are a manifestation of the group instinct. Human beings want to be with their own kind, provided they are not literally crushed into one another's arms. And that, too, they sometimes welcome."[165]

For Corbett, then, the challenge of congestion became not one of dissipation, but of facilitation, since "congested traffic, like excessive blood pressure, threatens the health of the body, that is to say, the normal and proper growth of the city."[166] To this dysfunction of nature, Corbett believed, there was a mechanical correction.[167] As early as 1923, Corbett, newly appointed chair of an architects' advisory committee to the New York Regional Plan, had recommended a traffic improvement through vertical separation: railroads would go underground, cars and trucks would stay at street level, and pedestrians would travel up one

level on elevated sidewalks [fig. 72].[168] The ideas were not new: traffic over and underpasses had been developed in France during the nineteenth century, Chicago had developed in the early years of the century below-grade streets for truck delivery in some areas of the Loop , and the 1912 *King's Views of New York* had depicted a future New York City bedecked with aerial walkways, roadways, and railways running through buildings and between them on bridges [fig. 73].[169] Just prior to the work of Corbett's committee, New York architect Arnold Brunner had proposed a tri-level traffic separation, much like that advocated two years later by his friend Corbett.[170]

What Corbett did offer new to the traffic separation proposals was a unifying metaphor, one capable of translating technical matters into a single romantic vision, and a romantic one at that:

> We see a city with sidewalks, arcaded *within the building lines*, and one story above the present street grade. We see bridges on all corners, the width of the arcades and with solid railings. We see the smaller parks of the city (of which we trust there will be many more than at present) raised to this same sidewalk-arcade level (public parking space for autos being provided underneath) and the whole aspect becomes that of a very modernized Venice, a city of arcades, plazas and bridges, with canals for streets, only the canal will not be filled with water but with freely flowing motor traffic, the sun glittering on the black tops of the cars and the buildings reflecting in this waving flood of rapidly rolling vehicles.[171]

As rendered by Ferriss, who was brought by Corbett into the project, the elevated sidewalks raised pedestrians above the gritty reality of an early twentieth-century city, where diminutive streetscapes were clogged by horses and wagons, and into a tranquil plane of the New Venice, complete with arcades, plazas, and towering skyscrapers [fig. 74]. No vehicular traffic was visible in the final, tranquil scenes, only canal-like openings between the sidewalks.

Corbett also provided the traffic separation project with a concise plan for development, something that had lacked in earlier visions. Like the zoning studies just completed, Corbett divided the traffic separation into stages. Beginning at the contemporary condition—one moving lane of traffic, two unloading zones, and sidewalks—Corbett proposed to construct temporary elevated sidewalks along both sides of a block [figs. 75-78]. That initial step would open the old sidewalk space for loading and unloading, which in turn would open up two more traffic lanes and thereby increase traffic capacity by a predicted two hundred percent.[172] Stage two would see the elevated sidewalks bridge intersections, providing for a continuous level of unimpeded pedestrian traffic [figs. 79-80]. Beneath, grade-level space would be opened within the buildings themselves, and all loading and unloading could be removed from the street. Traffic lanes would fill the streets entirely, increasing motor vehicle capacity three hundred percent more, in total now a five-fold increase.

As the loading zones were moved under buildings, Corbett continued, sidewalk space also would be moved within the lines of street front properties along the same principle that allowed suburban sidewalks to pass through private yards [figs. 81-82]. The elevated walkways would be subsumed into private building vis-à-vis giant arcades that would cut along a building's side, where "pedestrians will move about. . . out of danger from traffic, protected from the snows of winter and the glare of the summer sun."[173] Shopping and services would be relocated to this level, embedded within the buildings, providing an entirely new plane of pedestrian activity [fig. 84]. Down below, more traffic lanes could opened where there had previously been supports for the old "temporary" elevated skywalks.

The final step in traffic improvement would be to move vehicle unloading areas further yet into the buildings, opening the area under the internal sidewalks for even more traffic lanes. Related traffic improvements to be carried out at anytime during the separation process would include "basket-weave" intersections of under and over passes, and a sub-grade level of express traffic lanes through which automobiles could speed the length of Manhattan in mere minutes [fig. 83]. "The process can continue," wrote Corbett, "thanks to the fact that the foot traffic has been raised, *ad infinitum*. In fact, it could continue until the entire surface under the buildings is available for traffic, if ever such a condition should demand it."[174] The final gain from the desired human abandonment of terra firma: 700 percent more traffic than the current conditions allowed, an unparalleled infusion of congestive lifeblood into Corbett's organism-city.

Seductive as it was, Venice as a metaphor for New York held as much danger as that of Babylon. As Rem Koolhaas has explained, Corbett's vision of the city assumed congestion to be a mysterious element, one that when pushed to some congestion barrier, could broke through free and clear, attaining a superfluidity. But these free-flowing rivers of traffic, after they had completely undermined the accompanying vertical skyscraper-cities, would render each block an island unto itself amidst an automotive sea; each tower would become one of 2028 members of a metropolitan archipelago.[175] Paradoxically, Corbett's vision of a "modern Venice" embodied as well its own antithesis, the decentralized city: with each tower a self-contained community, skyscraper islands were freed to drift away from the engendering high-density city. [176] Attuned to the rising tides of decentralization, Corbett himself in 1930 flirted with this alternative vision of the urban future, proposing the wholesale relocation of the entire New York garment district—including employees and their housing—to a single-purpose, self-

contained, and self-supporting complex in the Bronx [fig. 85].[177] No mention was made of the gaping wound that would be imparted to Manhattan; the culture of congestion had become a metaphor of urban disintegration. Human beings, driven up and into self-contained skyscrapers by encroaching congestion, were segregated, separated, and all but cast adrift. A "very modern Venice" had revealed its true self: the inevitable culmination of the myth of Babel.

In October of 1925, Wanamaker's department store mounted the Titan City exhibition, a show intended to draw the public into Wanamaker's original cast-iron store at Broadway and Ninth Streets with "a pictorial prophesy of New York from 1926 to 2026." The show certainly did that, offering New Yorkers the most spectacular glimpse of future architecture and urbanism since the last publication in 1908 of *King's Views* of New York.[178] Corbett, who served as show's director, characteristically observed to Ferriss, "I think this is a most interesting opportunity to get someone else to pay for the futuristic ideas we have discussed"; the show would prove to be their last major collaboration.[179] It would also prove to be their visionary magnum opus.

Incorporated into Ferriss' twelve-foot-high murals, Corbett's models, and the renderings by other artists of Corbett's proposals for a "Grand Canyon of the Future" and "Future New York Street in 1975," were all of the urban visions that Corbett and Ferriss had generated together [fig. 86]. Setback skyscraper forms of the zoning studies, shaped by the Temple of Solomon reconstruction, towered between elevated terraces and building-top plazas. Arcaded walkways cut through the flanks of buildings, lifting pedestrians above the vast twenty-lane avenues of automobiles that poured into Titan City Giant across immense skyscraper bridges [fig. 87; other images in the Titan City exhibit included those in figs. 71 and 72].

"The sudden realization was brought to us," exclaimed art critic Leon Solon of Titan City, "that the future of architecture has become a matter of public concern."[180] Not only did the show excite the public imagination, Solon noted; serious discussion of the future of urban architecture was generated by this "first organized professional expedition into the future, a statement of structural ideals." Fantastic futurism had reached its apex.

Lewis Mumford offered a dissenting last glance at Titan City:

> On some such lines, I suppose, a rational criticism of the Wanamaker exhibition would go; but I have no belief that common sense or reason is capable of undermining the dream-city that our architects and business men have, so naively, conspired to erect. . . . We are not dealing here with rational plans at all: we are face to face with a religion, with a deep mystical impulse, a hierarchy and a theology.[181]

All told, "Innumerable lives" would be sacrificed in Titan City, to "Traffic, Commerce, Property Regulated and Zoned Heights on a scale that will make Moloch seem an agent of charity."

vi. Building Boom

The years of Corbett's career between 1921 and late 1925, that surprisingly brief span of his close collaboration with Hugh Ferriss on their visionary projects, were stunningly productive ones for the architect. Not only did he produce with Ferriss the influential zoning studies, Corbett additionally carried out the Temple restoration, traffic studies, and Titan City exhibit. And through all this, Corbett with Helmle was occupied with the design work of the Masonic Memorial and the massive Bush House project. In the first of the three articles he wrote for *The*

Saturday Evening Post, Corbett tendered an account of a day in the life of a fictional architect that, while embellished, revealed the architect's own frenzied pace:

> 7 A.M. He rises and swings into the daily dozen by the radio. . . .
> 7:30 A.M. Breakfast. Scans the morning paper for news of real-estate purchases and building-investment securities. . . .
> 8:15 A.M. Goes over correspondence for the day.
> 8:45 A.M. Meeting with the department heads to plan the day's work
> 9:00 A.M. Conference with the directors of the Cosmopolis Bank, who are discussing new building. He demonstrates his facility with financial affairs to such good effect that he returns to the office with signature on the dotted line.
> 10 A.M. Supervises model for the $10,000,000 President Jackson Memorial at Bunker Hill.
> 10:25 A.M. Arrives at Foreign Board of Charities to discuss project for new building group. he discloses a surprising grasp of the whole foreign situation and demonstrates the necessity of larger administration buildings. He manifests such sympathy that the board is convinced that he would have become a welfare worker if he hadn't become an architect. . . .
> 11:10 A.M. Chairman of zoning commission arrives to discuss new aspects of traffic problem in the financial district.
> 11:25 A.M. Irate construction engineer arrives to protest the steel work called for in his plan layout for the new thirty-two story triduplex apartment complex.
> 11:30 A.M. Construction engineer departs somewhat less irate, convinced the architect knows something about the stress and strains. . . .
> 12:30 P.M. Joins professional group for lunch.
> 1:15 P.M. Begins rough sketches for proposed stadium at Northeastern University. O.K.'s final specifications for a railroad terminal.
> 1:55 P.M. Meeting Fine Arts Commission
> 4-5:30 P.M. Drafting Room
> 7-9 P.M. Engineering Society dinner and humorous talk—if he has any humor left—on modern office buildings

10:30 P.M. Radio talk at station WIOU.
11 P.M. Arrives at Beaux-Arts Institute in time to offer a word of greeting to student architects before adjournment of annual benquet.
11:45 P.M. Home at last. personal correspondence and memoranda for the morrow's maelstrom.
12:30 A.M. Bed, dead.[182]

Corbett was definitely not exaggerating in this caricature his own widespread community involvement. Among the two dozen or so organizations which counted him a member, Corbett could list services including: Architecture League of New York, president, 1923-1925; Société des Architects Diplomés par le Gouvernment Français, president, 1929-1931; National Art Society, president (no available dates); Architects Emergency Committee, treasurer, 1930s; American Institute of Architects, Fellow; and the Royal Institute of British Architects, Fellow.[183] Neither was the Society dinner and address fictional. Corbett, always dapper in his spats, was a popular speaker at both professional meetings and social organization dinners [fig. 88]; a favorite story of his recounted the amazement of a client who, after his building had run $50,000 over budget, asked Corbett, " there are still $235 in the treasury—how did you overlook them?"[184] The architect's wit surfaced as well in his methods of wooing clients. Hugh Ferriss recalled that on his first visit to Corbett's office, the architect showed him a neatly constructed model of a twenty story office building out of which sprang, when the architect pulled an attached string, a second group of setback floors, and then a third. The twenty story block had grown into a skyscraper, a process which so impressed the intended clients, Ferriss noted, that they commissioned a building much higher than originally considered.[185] Showmanship like this and geniality of the sort readily present in Corbett helped put money steadily in the banks of the architect and his partners, even during the years of the depression.

By 1926, the firm again concentrating upon new commissions, and multiple projects quickly fell into place. First won was a church design for Brooklyn, then a bank in New Jersey; by 1927, several sizable skyscraper projects were taking shape, each carefully balanced between the varying tastes of the client and the more consistent preferences of Corbett.[186] Helping alleviate the heavy workload of the two senior architects was their new junior partner, Corbett's former atelier pupil Wallace Harrison; the young architect eventually would move on from Corbett's firm to head architectural teams for the United Nations headquarters and Lincoln Center, and under his own name design several projects including the Metropolitan Opera House at Lincoln Center. Yet Harrison in the twenties was scraping by on freelance design work for Helmle & Corbett, and, for several years, a teaching position at Columbia. However, because of his opposition to the Beaux-Arts style of teaching, and because he often forget to show up at Columbia for the classes he taught, Harrison soon was on the verge of dismissal there.[187] So just as Frank Helmle had helped Corbett out of financial trouble in 1912, he did so for Harrison in January of 1927, offering him a partnership in the firm. Harrison gladly accepted, taking a leading role in Corbett's "big small office" of twelve to fourteen men.[188]

The first tall building bearing the stamp of Helmle, Corbett & Harrison, was erected in 1927 for the Pennsylvania Power and Light, in Allentown, Pennsylvania [fig. 89].[189] A stylish coupling of restrained street-level trim and spare vertical facades to a powerful setback block, this building approached the qualities of "thrill and appeal" that Corbett had explained years earlier to his students. Like Saarinen had done with the surface of his *Tribune* Tower, Corbett sharply accented the piers and mullions of the Pennsylvania building, so that they surged skyward with energy

enough to break clear of the setbacks that worked to ease the ascent of the mass. Unlike the more plastic modeling Saarinen's tower, Corbett's building had a sharp-edged, chiseled texture of its own, one possibly gleaned from the crystalline forms of contemporary German architecture.[190] New entirely to the work of Corbett were the naturalistic patterns he used for the sculpted panels around the building's main entrance [fig. 90]. The strong, clearly etched character of the reliefs was similar to the ornament of Ralph Walker's landmark Barclay-Vesey Building in New York (1923-1926), and it evoked as well the decorative sculpture that marked the Paris 1925 Exposition Internationale des Arts Décoratifs et Industriels Modernes.[191]

Returning to New York, the firm next produced One Fifth Avenue, built in 1927 as one of the first applications of the skyscraper form to the apartment block.[192] Soaring high above Washington Square park, the structure formed a picturesque composition of terraces and peaks behind Stanford White's solemn Washington Memorial Arch of 1892 [figs. 91-92]. Noted by critics was the tower's careful respect of its low-lying neighbors, the Greek Revival row houses along Washington Square and, just behind them, the old Washington Mews:

> The beauties of scale with which the neighborhood abounds. . . have been accented in a remarkable degree, due to the almost entire absence of ornament. Thus does [1 Fifth Avenue] in its mass serve as a background for the old houses on North Washington Square. . . . how majestically the ecclesiastical structure dominates its surroundings, how grandly it rests among the lower buildings that cluster at its base.[193]

In place of ornament, which Corbett had originally planned but soon stripped away, Corbett applied to the exterior of One Fifth Avenue the shadow brick that he had devised for the earlier Bush Terminal, varying the building surface with the subtle play of light and dark. Opulence was reserved for the interior, where visitors were ushered into a lobby filled with Doric columns executed in rich walnut wood.[194]

With the Roerich Museum and Master Apartments of 1929, Corbett incorporated into a single tower on Riverside Drive at West 103rd Street a theater, restaurant, museum, and an apartment hotel above, all directed by artist and mystic Nicholas Roerich [figs. 94-95].[195] Reworking an unbuilt "Belden Project" for the Russian émigré, Corbett abandon for good the remnants of "girder gothic" that had lingered in his previous skyscraper designs [figs. 40, 93].[196] Gone were the thin vertical ribs and the differentiated base stories: the building's walls rose sheer from the sidewalk as flat, undecorated grids of brick and glass, planes that fractured upon reaching the setback limit into chamfered facets and crystalline setbacks [fig. 96]. Much attention was given the building because it was the first in New York to employ corner windows, an encroachment from Europe of the soon-to-be-termed International Style. The sharp staccato of these openings, notched into the building's lower edges, helped articulate vaguely International Style horizontal window rows that tempered the building's intense American verticality. Corbett continued his shaded brick experimentation on the building, this time grading the bricks from dark reddish-purple at the base to white at the top of the building, creating the appearance of a permanent wash of sunlight across the tower's upper reaches. The color scheme struck Ferriss as naturalistic, suggesting "a kind of growth, and it is not, indeed, entirely fantastic to speak of a building as something which has grown."[197]

During 1928, while the Master Building was in final planning stages, Corbett's architectural office underwent yet another reconfiguration. Frank Helmle, whose health was failing, retired at the age of sixty-eight. Having relied on Helmle for sixteen years to carry much of the production and administrative workload of the partnership, Corbett and now Harrison too needed "someone willing to invest in the firm and help expedite its work without exerting too much interference in design

matters."[198] They found that person in William H. MacMurray, "an old Scotsman who came in to bolster up the office," Harrison remembered.[199]

Corbett, Harrison & MacMurray, as they named themselves, finished out the decade with two commissions. The National Title Guarantee Company, completed in 1930, was a small, mid-block tower with a very tall aspirations; fin-like projections buttressed the lower end of the building's piers, which then raced very quickly to their ends amongst the setbacks around the thirteenth to seventeenth stories [figs. 97-98]. Those same buttresses framed panels of limestone cut into dynamic zig-zag forms, likely by renown sculptor René Chambellan, who definitely contributed marble relief sculptures inside.[200] The luxurious banking room, graced by Chambellan's Greek heroes, was Corbett's most extravagant application of the Moderne style to date: streamlined railings raced about the room and through a geometric ornamental grill; lotus forms sprouted from above as exhaust ventilators, and from below as fluted balusters and lighting pedestals; and patrons crossed brightly patterned terrazzo floors to stand beneath the lightening bolts and clouds painted on the ceiling [fig. 99].[201] By comparison with this exuberant Brooklyn tower, the firm's apartment building at Ten Park Avenue (1931) stood as a mute cliff, looming over low-rise neighbors that included Corbett's nearby School of Applied Design [figs. 100-101].[202] While the building soberly stepped down at mid block to meet its neighbor, it otherwise remained reticent, hiding behind its blank grid of glass and masonry the fashionable lobby and delightful living spaces within.

The building boom that had kept Corbett busy throughout the nineteen twenties came to a rapid end on 24 October 1929. With the stock market collapse, the capital necessary for most construction projects vanished, and the work available to architects dwindled to near nothing.[203] As one of the country's leading

architects, Corbett was fortunate enough to land two of the larger individual commissions that survived the thirties, an office block for the Metropolitan Life Insurance Company and the Criminal Courts Building for the City of New York. Employment also came to Corbett from two of the largest collective design projects of the thirties, Rockefeller Center in New York and the Century of Progress Exposition in Chicago.

Corbett's involvement with the earliest of the projects, the Metropolitan Life Insurance Company began sometime in 1929, before the crash, in the thick of the race to build the world's tallest building. Just after former Governor Alfred E. Smith announced plans for the Empire State building, which would "top them all" at eighty stories, the "unbeatable" Corbett announced that he had designed for Metropolitan Life a 100 story tower, regaining for the company the title briefly held by their existing tower of 1909.[204] Thwarted in his efforts to rebuild Solomon's Temple in Philadelphia, Corbett alleged, he now was determined to reconstruct Brueghel's Tower of Babel on Madison Square.[205] The 100 story skyscraper he proposed with collaborator D. Everett Waid, Metropolitan Life's company architect, certainly embodied the hubris of its archetype, not to mention the self-sufficiency aspects of the reincarnated Babel towers in Corbett's "Modern Venice" proposals of the mid-twenties [fig. 102]. As for the tower's aesthetic inspiration, candidates more likely than Brueghel's vision included the horizontally-tiered "Art Center" in Hugh Ferriss's *Metropolis of Tomorrow*, the delicately fluted Irving Trust Building (1929-1931) by Corbett's friend Ralph Walker, and the crystaline skyscraper fantasies of German expressionists [fig. 103].[206] Had it been built, the Metropolitan Life tower would have looked entirely unlike the homogeneous group of skyscrapers that it was to rival. Not only did Corbett envision a surface realized in shimmering steel and glass rather than the masonry specified in New York building codes, he further

dismissed the model of stepped base with unbroken shaft that he had helped popularize, instead proposing to step back the Metropolitan Life shaft along its entire height.[207] The visual effect was one of a smooth telescoping motion, as cautious in its reach skyward as its builders in their climb to the top of the Insurance world.

Depression realities soon prompted Corbett and Metropolitan Life to abandon their battle with the Happy Warrior and his Empire State Building over the title of World's Tallest Building. The project was not canceled, however. It was simply truncated, quite literally at the tower's thirtieth floor. And as built, even without the upper seventy stories and shiny skin, the Metropolitan Life North Building was stunning [fig. 104-107]. Built in halves, first in 1932-1933 and then in 1939-1940, the cliff-like massing filled completely the zoning envelope of an entire block; limestone walls with copper-tinted windows gave the structure the look of an mineral encrusted mountain.[208] Monumental loggia at all for corners and cavernous lobbies were ready to accept second story sidewalks, should they ever develop, as well as the 25,000 employees who worked, ate, recreated, and relaxed in the building. Work spaces too were without precedent; cavernous floors eighty feet from window to back wall broke with old formulas for maximum office depth, as sunlight and fresh air had been replaced by electric light and conditioned air [fig. 106]. The other technical innovation employed to wide acclaim by the architect was an extensive network of pneumatic mail tubes, which interconnected the twenty-three acres of floor space within the manmade mountain.[209]

The commission for the Criminal Courts Building and Prison was given to Corbett and associate architect Charles B. Meyer in the middle years of the depression, a time when projects of such a scale were rare indeed.[210] Flat, repetitive piers, unadorned wall surfaces, recessed vertical bands of windows, and

a crowning ziggurat tower over the service core, all were part and parcel of the classic-inspired Moderne style preferred for civic commissions of the thirties [fig. 108]. The building imposed an incredibly somber monumentality evocative of a long-gone predecessor across the street, John Haviland's Egyptian-inspired "Tombs."[211] The New York Court's unflinching mass, the granite monoliths guarding its entrances, the inscription that Corbett inscribed over the rear entrance, which read "Justice is the firm and continuous desire to render to every man his due," and the "bridge of sighs" between the detatched prison block from the courthouse block—a touch appropriate for the advocate of a "modern Venice"—all impressed upon New York the weight and power of the law. Inside the Criminal Courts Building, a plan noted as a model of vertical traffic efficiency helped expedite the justice due.

In that hectic year of 1929, besides finishing the Master Building plans and beginning the design of the Metropolitan Life tower, Corbett was one of several architects that submitted to the Metropolitan Square Corporation—financed by John D. Rockefeller, Jr.—proposals for the design of a new Opera center in midtown Manhattan. Like the seven other contributing members of the architectural "symposium," Corbett had received tentative plans for the opera building and surrounding structures; his task was further develop them into a "commercial center as beautiful as possible consistent with a maximum income."[212] Corbett recast the scheme into a cautiously modern proposal that forecast several features of what would later become, without an opera house, the Rockefeller Center [figs. 109-110]. Among the ideas later accepted for the Center was that of a tall buildings on the western edge of the scheme—realized as the RCA Building—and an open approach from Fifth Avenue between two low commercial blocks [fig. 111].[213]

Corbett's plans also resuscitated his familiar traffic separation plans; pedestrians were led up a shallow ramp from Fifth Avenue to a plaza, one story above the streets below, that ringed the Opera building and connecting to it the surrounding office and retail buildings.[214] While Corbett's plans were clearly arranged with an eye to maximize potential economic return, the project's strength as a work of civic design was acknowledged by its later independent publication as a model cultural center.[215]

That Corbett's proposal was favored above the others submitted by symposium members was almost a foregone fact; the architects judging the proposals were Cass Gilbert, Milton B. Medary, and John Russell Pope, all men of Corbett's generation and all extreme architectural conservatives.[216] In fairness to the panel, they had the insight to recommend to Rockefeller that ideas from several of the other proposals be incorporated with Corbett's scheme, and that a committee of architects be formed to carry out the final designs. Corbett and his firm were retained in an advisory role to Rockefeller's project director, John Todd, and they were joined by Raymond Hood and his partners Frederick Godley and J. André Fouilhoux. Since the ever-frugal Todd distrusted overly creative imaginations of the sort shown by Corbett and Hood, he placed his own architects, Andrew Reinhard and Henry Hofmeister, in charge of the design process for Rockefeller Center—the project's name after the Opera bowed out in 1931.[217] The Associated Architects, as they were known, together shared all credit for design of the Center [figs. 112-113]. But within that working group of architects, design responsibilities settled primarily upon Hood, who sculpted the individual building forms of the Center, Wallace Harrison, who managed the whole design process, and Reinhard & Hofmeister, who handled much of the interior work.

Corbett, while remaining an integral part of the team that made major Center decisions, bowed out of the day-to-day design process. Not only was he busy with his own commission for the Metropolitan Life Tower, he was occupied as well with the design of the Century of Progress Exposition, to be held in Chicago in 1933. Corbett, at sixty years of age, had been appointed in 1928 the chair of a committee of architects supervising the design of the Chicago Fair. Their charge was the task of designing an Exposition to stand "as a symbol of the future—the icons of the past cast aside, the ingenuity of the designers of the present thrown on their own resources to meet the problems of the day—strengthened only by the background of scientific engineering and inventive genius."[218]

The first act of the committee had been the determination of an appropriate aesthetic for this icon of progress, a task with which Corbett was intimately familiar. An initial round of designs revealed the architects' similar perspectives: all offered highly symmetrical plans, and almost all featured a single tower as a dominant plan element. Several proposed buildings in the Beaux-Arts style made popular by the Colombian Exposition of forty years before. Corbett's proposal in this round differed significantly from the others in that he envisioned a fair comprised of multiple, smaller skyscrapers arrayed along two sides of the central lagoon; in essence, he translated the skyscraper-in-the-park scenario of Raymond Hood to the scale of the Exposition [figs. 114-115].[219] None of these schemes, however, amounted to much in the ultimate plan of the Century of Progress. Sometime in 1929 the committee agreed upon asymmetricality as an appropriate indicator of modernity, and accordingly organized the exhibition grounds into an irregular pattern without any single building as a central ordering feature of the plan.[220]

What eventually shocked fairgoers even more than the asymmetricality plan (if indeed they even noticed the plan) were the Exposition's seemingly lopsided

buildings. Following the notion of asymmetricality, Corbett explained of the Fair's architecture and of his own evolving conception of architectural composition,

> "symmetry and balance, except in a minor degree, are seldom suitable to the practical phases of [architecture]. I used to teach my classes at Columbia that symmetry and balance were architectural essentials, and the reason I gave was that man finds these qualities in most living things, particularly in the human body. Fortunately, I know realize that symmetry and balance exist in the human body at only one time—when a man is in his coffin."[221]

Shocking as well were the materials of the fair buildings. Financial strictures imposed by the Depression had eliminated funding for "the grandiose effects of old Fairs," one of the fair architects explained, prompting the designers to embrace a synthetic aesthetic of lower-cost girdered towers, cable-stayed roofs, and blank walls.[222] Because "ornament, which had its origin in masonry, could not be used," the fair architects advocated "color, brilliantly handled" as the logical substitute.[223] Joseph Urban was thus appointed to paint the buildings into some semblance of architecture, and his efforts "whipped the whole scheme into a picture of sparkling color that is intriguing to say the least."[224]

Corbett's major building for the Exposition was the General Exhibitions Group, a series of four identical connected pavilions that housed exhibits of various industries not large enough to warrant their own dedicated building [figs. 116-117]. Avoiding the looks of both of science fiction and spare neoclassicism that dominated most buildings, Corbett delivered a boldly plastic building, one that in its play of horizontal and vertical on the pavilion entrance towers, approached the spirit of European modernism.[225] However, it was hardly a literal translation of that rising force. Its garish color scheme of black, white, yellow, and purple, and such superfluous details as the thin, concentric quarter-circular bars on the stepped

walls of the entrance, detracted from the overall power of the group in a concession to quirky American decorative tastes.

While the General Exhibitions building and its companions at the Exposition were intended to reveal the future of architecture, one other modest structure there, a "House of Today" tucked away in the farther reaches of the fair, would prove far more indicative of the final stage of Corbett's long career.

vii. Prefabrication and Housing

As Corbett began his fourth decade of practice, an unusual request came to him from Archibald MacLeish, editor of the new *Fortune* magazine. MacLeish wanted Corbett to investigate the possibilities of systematically manufacturing single family houses, a building type entirely unfamiliar to Corbett.[226] Although the *Fortune* undertaking amounted to little itself, the project's challenges in design as well as in engineering fully piqued Corbett's interest in prefabricated housing; with his workload reduced by the Depression, Corbett had the time available to devote to the subject. The architect's resulting efforts to initiate the mass production of houses would occupy him throughout the thirties and into last years of practice.

The first Corbett residential design to see the light of day was his House of Today, part of a neighborhood of "Modern Houses" designed to showcase innovative design in residential architecture and furnishings [fig. 118]. Located across Leif Erikson Drive from Keck & Keck's appropriately futuristic House of Tomorrow, Corbett's anachronism cowered in the shadow of its innovative neighbors.[227] Executed in a timid "modified classic design," the house could muster few innovations beyond air conditioning and custom cabinetry. Inside the

house was furnished with an assortment of flaccid, French-inspired furniture designed by W. & J. Sloan, who apparently salvaged the dregs of the 1925 Paris Exposition for the rooms of the "House of Today" [figs. 119-120]. Not surprisingly, both a contemporary article in *The American Architect* and a later book published specifically on the "Modern Houses" of the Exposition neglected to mention the House of Today.[228]

In fairness to Corbett, the House of Today was his first realized design for a single-family house, and by the title of the project it is clear that the house was not supposed to approach the avant-garde of its companions. Fortunately, Corbett's next consideration of the detatched dwelling, the Sun House, indicated that the architect had achieved a more thorough understanding of the type's artistic possibilities [figs. 121-122]. The design was also the first of Corbett to include prefabrication in its scheme. One of eight "machines for living" commissioned of leading skyscraper architects by *Architectural Forum* and Macy's department store, Corbett's entry to the sponsors' "Forward House" show could not have been designed long after his House of Today. However short that time lapse, though, it gave Corbett the contact with residential architecture that he needed to design a competent and attractive house.

Quite in contrast to its directionless predecessor, the Sun House was organized around two central principles. Foremost was the creation of a private living space, open within itself and to the outdoors, but closed against the surrounding world. Corbett shaped his house to shelter its occupants from "the afflictions that the average home owner endures today at the hands of his neighbors, who are often of a disagreeable variety, or else of the genus whose kindness kills. Of the two, the latter are by far more terrifying."[229] Protection was offered by the house itself, which curled around the central garden onto which the

main rooms fully opened themselves. Service spaces and solid walls shielded the main rooms from other directions. Atop the building, balconies and a sun deck offered outdoor spaces private from even the rest of the house.

Of secondary importance was the house's modular layout and construction. "The different parts, which enclose and divide the house are of standardized sizes and shapes," extolled Corbett. "They are prefabricated, delivered to the site, completely finished, and there assembled by mechanical devices."[230] This unit-based design revealed itself most clearly in the regular rhythm of the house's windows and wall panels, which marched around the structure in perfect synchronism. Flat roof planes topped these rectilinear walls, completing the building's modern appearance, and balcony walls upon side arms of the house gently stepped the building up from the garden to the third story sun deck. In fact, the evocation of setbacks prompted Lewis Mumford to mock in a *Sky Line* column titled "Beer and Grass—The Big Boys Turn Modern": "Mr. Corbett has succeeded in doing an ordinary house without suggesting that it would be better if it were sixty-four stories high—another advance!"[231] Frank Lloyd Wright, believed by a *House & Garden* editor to be Corbett's "only rival in volubility," said of Corbett's project:

> As for "Sun"—Sunny Harvey's house—I like "Sun" best [of the show] because it affectionately leans toward the sort of thing that has grown up in my own mind as a more modern type of exterior. But the plan is a wall-and-window plan. That is to say, an old-fashioned plan. . . . The antecedent likeness of the architect shows keen eyes but, like the one who would try to live in this house, he must see from the top down. Too far away, Wiley?[232]

The criticism of Mumford and Wright did not dissuade Corbett at all from his new-found interest in residential architecture. In fact, Corbett only committed

himself more thoroughly to the field, founding in 1933 with partners Ernest Pavey, a Midwest real estate operator, and Henry Hasenburger, an Austrian born engineer, the PHC Housing Corporation. Following its inception, PHC spent "hundreds of thousands of dollars" on the research of housing prefabrication before purchasing a factory in Jackson, Mississippi, to stamp out their designs [fig. 123].[233] By 1940, the first manufactured houses were delivered: a rudimentary one-room enclosure cost $750, the top of the line, a fully equipped five room house, cost $3,000. The houses' selling points were a supposed twenty-five percent reduction of assembly costs and time, and an ability to easily expand the basic house; both were made possible by a unique system of metal fasteners that allowed walls to be readily clipped together, without nails, or taken apart later for rearrangement. Such prefabrication gimicks aside, these units in no way lived up to the promise of the "Sun House." Corbett and his partners presented customers with the standard suburban Colonial revival and bungalow types, offering buyers a variety of tight, boxed-in room arrangements that could be covered by any number of different siding and roof options. "There are as many ways of designing a house with standard units as there are different positions on a chessboard," was a saying attributed to Corbett; unfortunately, the chessboard aesthetic had gained an upper hand in the design of PHC houses.[234]

As the architect entered the forties, prefabrication became the subject of his customary proselytizing. Speaking to a group of government officials, builders, and manufacturers, the architect looked past the looming wartime buildup, pointedly askeding:

> if we knew the day when Hitler would attack us we would certainly concentrate every effort in preparing ourselves for that attack. If we knew the day when peace would be declared—what are we going to do about that national emergency? When that day arrives . . . . none of the things

> which [factories] have been producing will be needed. . . . Just what can we do with these great war-time factories to turn them into peace-time production?[235]

As always, Corbett had an answer, although one more astute in its anticipation of a post-war building boom than in a forthcoming embrace of prefabricated housing:

> The demand for rapid defense housing is going to demonstrate the economy of mass-production of building elements completely finished in the factory. . . . Plans should be made now to turn these great military facilities into the production of interchangeable, standardized, completely finished building units with which needed buildings for peace-time activities can be rapidly erected.[236]

Not all in the speech was so altruistic; realizing a potential bonanza for PHC, Corbett—usually among the most conservative of Republicans—shrouded his own interests behind a waving flag: "our government must, of course, be ready to spend what is necessary to prepare for such a transfer. If we are spending billion to defend democracy, should we hesitate to spend billions to preserve it?"[237]

This fascination with prefabrication extended to other building types as well. Corbett attested, "I am personally convinced that what will be demonstrated in the field of housing can, with equal effectiveness, be put into production of general building."[238] The buildings that would result would fundamentally change the nature of architecture:

> "Buildings will be quickly put together out of those mass-produced prefabricated elements. They can be taken apart with equal rapidity. Changes in arrangements can be rapidly and economically made to adjust them to the practical and functional needs of the changes which are always occuring in manufacturing and business procedures."[239]

Within this vision of a mutable and even nomadic architecture lurked undercurrents related to those in Corbett's earlier scheme for a "modern Venice." That earlier vision had offered the prospect of buildings as self-contained communities all but ready, save their own immobility, to follow the Garment Center out of the city entirely. With the added freedom of collapsible and reconstructable architecture, buildings would be entirely free to abandon their urban birthplaces and relocate anywhere. Corbett had delivered at last the keystone to the mythic arc of skyward building and urban disintegration.

1941 marked the high point of Corbett's prefabricated housing advocacy, since PHC apparently did not survive the wartime commercial restructuring and severe curtailing of non-industrial construction. The architect's pace slowed as he began his fifth decade of practice, and following the retirement that year of William MacMurray, Corbett restructured his practice into an architectural consulting firm known as Harvey Wiley Corbett Associates. From this new position, he joined forces with other architects to carry out his two last projects, Stern Hall women's dormitory (circa 1943) at Corbett's alma mater, the University of California—Berkeley, and the Amsterdam Avenue public housing group in New York City (circa 1945). With Stern Hall, Corbett and associated architect William Wurster employed elements of the ascending "International Style" modernism—unadorned walls of poured concrete, a flat roof, cantilevered balconies, and a glass-walled stair hall—much more directly than Corbett had done on his own [figs. 124-125].[240] The resulting structure met the utilitarian requirements of the commission, but it did so by means of an ascetic take on modern architecture that conveyed little of the sophisticated finish of similar Corbett buildings, like any of the low-rise apartment buildings he had done earlier for Sailors' Snug Harbor [cf. fig. 92]. Likewise, the

public housing units for New York City, designed by Corbett, Holden, & Afterbury, formed a monotonous row of brick blocks marching down Amsterdam Avenue [fig. 126]; in this last of Corbett's built projects, the "thrill and appeal" that had infused his work was gone entirely, a victim of both tight budgets and a lack of architectural ingenuity.

Sensibly enough, as Corbett's design abilities began to wane in the forties, the architect reduced his workload to one primarily consisting of consulting and public speaking. As always, his activities ranged widely. Some of the architect's last designs were advisory schemes for public housing, and featured as their basic unit a two-story "duplex" not unlike that used by Le Corbusier in some of his apartment buildings.[241] Not surprisingly, the issue of "slum clearance" was frequently the topic of Corbett's public speeches, including one to a national conference of mayors. Other services of Corbett's included a membership among the design committee for the United Nations, headed by his former pupil and partner Wallace Harrison, and the chairmanship of a wartime committee dedicated to the improvement of architecture and construction in the Soviet Union.[242]

In Corbett's final widespread appearance in 1949, the architect was asked by the *New York Times* to contribute, appropriately enough, a description of the future New York. Published as one of five architectural different predictions, Corbett's was the only vision to still advocate the idea of a dense central city. By contrast, Eliel Saarinen, Robert Moses, Corbett's old colleague Wallace Harrison, and even Hugh Ferriss, all advocated to varying degrees the urban model forwarded by European modernism of buildings in a park. Corbett stood his ground, promoting just as enthusiastically as he had twenty years earlier the idea of New York as a modern Venice, one filled with towering skyscrapers containing entire vertical communities within themselves.[243] By this time, the romance of Corbett's

prediction had far surpassed any reality it might once have claimed. But with the unwavering optimism of his urban vision, where efficiency and luxury were the predominant characteristics of the millennial city, Corbett had lost none of his abilities to conjure a fantastic glimpse of future architecture.

viii. Conclusion

In early April of 1954, the American Institute of Architects granted to Harvey Wiley Corbett a Medal of Honor, the highest tribute the Institute could pay its eighty-one year old Fellow, in recognition of a career of unusual and continued distinction over a span of five decades.[244] Only three weeks later, Corbett was dead; a heart attack unexpectedly had struck the hale and hearty architect in his upper east side home. With his death, the skyscraper architecture that had marked the high point of Corbett's career, and of American architecture overall during the interwar years, had lost one of its most vocal supporters. And it was exactly Corbett's style of vocal support, characterized by frequent speaking appearances at society functions and by regular publication in widely read newspapers and periodicals, that had nurtured contemporary support for the various skyscraper styles that have been more recently lumped together as "Art Deco." Thus, the death of Corbett, and the passing of colleagues like Hood, coupled with the lack of any central organizing theory to explain their artistic *oeuvre*, meant the end of an architectural era. Further contributing to the disappearance was the rise of a competing modern vision, that canonized by Sigfried Giedion in his *Space, Time, and Architecture*, which made its first appearance in 1941. Of all Corbett's buildings, Giedion found room for only Rockefeller Center in his architectural polemic; moreover, with the exception of Frank Lloyd Wright, Giedion slighted the entire remainder of twentieth century American architecture. For the next several decades, Giedion's myth of modernism continued to hold the work of Corbett and his contemporaries out of fashion; only with the rise of Post-Modern criticism in the 1970s did historians reexamine the

wealth of architecture outside the modern canon, making it possible to reassess the reputation of architects like Corbett.

Beginning his career at the turn of the century, Corbett demonstrated his Beaux-Arts abilities with his superb buildings for the Maryland Institute and the New York School of Applied Design. As he worked into the teens, the architect was among the practitioners leading American architecture toward new modes of design, as seen in his Brooklyn factories and his Bush Tower. Even as he and Hugh Ferriss continued to define the skyscraper form in their theoretical explorations of the early twenties, Corbett continued to design such classicizing masterpieces as the Bush House in London. During the early twenties, Corbett began his most intriguing work, the blending of myths of Babylon and Babel into his paper restoration of the Temple of Solomon, and then into his built George Washington National Masonic Memorial. Those theoretical explorations of the skyscraper form culminated with their incorporation into the architect's multi-level traffic study. He promoted his study as a "modern Venice," a metaphor he popularized in the "Titan City" exhibit and in newspaper and popular magazine articles he wrote. The exhibition and the writings became the guiding vision of future architecture for both the profession and for popular movies as well.

As Corbett returned to commissions in the later twenties and early thirties, he designed such exuberant skyscrapers as One Fifth Avenue, the Roerich Museum and Master Apartments, and the truncated tower for Metropolitan Life, which, in their melding of powerful massing and playful appeal, deserve consideration as some of the best works of interwar American architecture. As Corbett worked into the later years of his career, he anticipated the arrival of European modernism in elements of the Roerich Museum as much as in his designs of the Sun House and his Century of Progress pavilion. In his final decade of practice, Corbett focused

his attentions on the pressing problems of low-cost housing, first exploring mass-produced single family houses, and subsequently the large public housing block.

Few architects could match the breadth of Corbett's work, let alone the length of his career. Likewise, few architects could boast a record of so many successful buildings in so many different modes. Throughout his career Corbett provided clients with buildings comfortably modern and always within the limits of good taste. From the nineteen-twenties on he provided both architects and the general public with visions of a future city, images that were optimistically modern yet comfortably rooted in familiar myth. In the realm of architectural education, he long served as a popular and influential educator at Columbia University and his in own atelier; likewise, by applying his wit and charm to popular writing and speaking, Corbett served as an architectural educator and skyscraper promoter to a much wider audience. Always, he remained a gentleman of the greatest charm and an architect of the highest esteem. And always, he stood as the era's staunchest proponent of the setback skyscraper.

Notes

[1]"Corbett, Harvey Wiley," *The National Cyclopaedia of American Biography*, current volume E, 1937-38 (New York: James T. White, 1938), 130.

[2]Richard Chafee, "Hunt in Paris," in Susan Stein, ed., *The Architecture of Richard Morris Hunt* (Chicago: The University of Chicago Press, 1986), 15-16.

[3]Richard Chafee, "The Teaching of Architecture at the Ecole des Beaux-Arts," in Arthur Drexler, ed., *The Architecture of the Ecole des Beaux-Arts* (New York: The Museum of Modern Art, 1977), 82-97.

[4]For a thorough explanation of Beaux-Arts teaching, see both the Chaffee article "The Teaching of Architecture at the Ecole des Beaux-Arts," and Donald Drew Egbert, *The Beaux-Arts Tradition in French Architecture* (Princeton: The Princeton University Press, 1980).

[5]A total of forty-eight Americans students studied at the Ecole under Pascal's direction, more than in any other atelier except that of Victor Laloux. For the dates of prominent maîtres d'atéliers, see Chaffee, "The Teaching of Architecture at the Ecole des Beaux-Arts," 500, n. 129. For the numbers of American students in atéliers of Pascal and Laloux, see Drexler, 459.

[6]John Jay Burnet, "Jean Louis Pascal: An Old Pupil's Appreciation," *Journal of the Royal Institute of British Architects,* 3rd ser., 27 (June 26, 1920), 400.

[7]Francis Swales, "Draftsmanship and Architecture as Exemplified by the Work of Paul P. Cret," *Pencil Points* 9 (November, 1928), 693.

8Drexler, 236.

[9]For a complete list of regularly offered lectures at the Ecole, see Chafee, 503-504, note 191.

[10]Egbert, 65. When Gaudet and Pascal led the attack on Viollet-le-Duc, they did not do so out of a general opposition to Gothic architecture. Rather, they opposed both Viollet-le-Duc's consistent application of gothic principles to all architectural problems and the fact that Viollet-le-Duc's appointment by Napolean III consitutued a dictated Imperial aesthetic.

[11]"The Royal Gold Medal, 1914," *Journal of the Royal Institute of British Architects*, 3rd ser., 21 (27 June, 1914), 535.

[12]Gaudet's lectures were published almost verbatim, in the years immediately following Corbett's departure, as *Eléments et théorie de l'architecture*, 4 vols. (Paris: 1901-1904).

[13]Translation by Reyner Banham, *Theory and Design in the First Machine Age* (1960; Cambridge: The MIT Press, 1992), 17.

[14] The selection of Gaudet's unorthodox design for the 1864 Grand Prix was likely the result of the presence of several of Viollet-le-Duc's Gothicist friends on the selection committee that year. For more information on Gaudet's selection, see Egbert, 65. For a succinct discussion of Gaudet's project, see Van Zanten, 255-257.

[15]The translation is by Mardges Bacon, who presents a brief overview of Gaudet's theories in *Ernest Flagg, Beaux-Arts Architect and Urban Reformer* (New York: The Architectural History Foundation, 1986), 44-46.

[16]Banham, 17.

[17]Banham, 17.

[18]Photographs and plans of the building are in the Corbett archive, Box 8, Avery Library, Columbia University. One photograph of the building under construction has written across the top "Harvey's building — car sheds and machine shop of the Company Genovoise des Tramways Electrique — March 1900." Since Corbett finished his Ecole studies that same year, he must have designed the building while still a student. Evidence to Corbett's control over the project comes from a 1941 promotional booklet of Corbett's that states he both designed and built the administration building.

[19]Rosemarie Haag Bletter and Cervin Robinson, "Corbett, Harvey Wiley," in John A. Garraty, ed., *Dictionary of American Biography*, supplement 5, 1951-1955 (New York: Charles Scribner's Sons, 1977), 133-134.

[20]"Pell, F[rancis] Livingston," *The National Cyclopaedia of American Biography*, vol. 47 (New York: James T. White, 1965), 302.

[21]David G Wright, manuscript for a presentation on the history of the Maryland Institute, College of Art main building, 6 May 1992, Office of Planning, Maryland Institute, College of Art.

[22]"Accepted Competitive Design for the Maryland Institute, Baltimore, Maryland," *The American Architect* 87 (May 27, 1905), plates 36-37.

[23]The quote from Building Committee minutes was later reprinted in an unpublished manuscript about that group, Office of Planning, Maryland Institute, College of Art.

[24]Wright, 3-4.

[25]Wright, 3.

[26]"Maryland Institute Building, Baltimore, MD," *The American Architect* 91 (May 25, 1907), 212, plates.

[27]Wright, 5.

[28]Alfred Morton Githens, "Recent American Group-Plans," *The Brickbuilder* 21 (November 1912), 283-287.

[29]"New York School of Applied Design for Women, New York, N.Y.," *Brickbuilder* 18 (April 1909), plates 47-48. A brochure later published by the school, which had become the New York—Phoenix School of Design, names Corbett as the designer. The school evidently remained pleased with Corbett's work, as he was listed both as a Trustee for Life of the Institute and as its current President. Corbett archive, Box 8.

[30]Elliot Willensky and Norval White, *AIA Guide to New York* (New York: Harcourt Brace Jovavovich, 1988), 202.

[31]David Van Zanten, "The Lenox Library: What Hunt Did and Did Not Learn in France," in Susan Stein, ed., *The Architecture of Richard Morris Hunt* (Chicago: the University of Chicago Press, 1986), 96.

[32]Thomas A. P. van Leeuwen gives a thorough account of the battle for tallest newspaper building on Park Row in his *The Skyward Trend of Thought* (Cambridge: MIT Press, 1988), 93-114.

[33]Haag Bletter and Robinson, 133. For a general history of Columbia University's architecture school, see Richard Oliver, ed., *The Making of an Architect: 1881-1981* (New York: Rlzzoli, 1981), particularly David G. DeLong's contribution, "William R. Ware and the Pursuit of Suitability."

[34]*Columbia University Quarterly* 11 (June, 1909), 318-321, named Corbett as the assistant director of a downtown atelier with Charles Follen McKim, but a 1906 article about the Columbia architectural atelier system listed John Russell Pope as McKim's assistant; see *Columbia University Quarterly* 8 (June, 1906), 216. Bletter cites Corbett as a Columbia instructor from 1907-1911, and I use this date for Corbett's appointment toi McKim's atelier. Bletter's date also reflects the liklihood that Corbett's receit of the of 1907 brought him to McKim's attention.

35"Memorial Dinner to Harvey Wiley Corbett," *Journal of the Royal Institute of British Architects* 62 (October, 1955), 479.

[36]The quote is from Wallace Harrison, as recounted by Victoria Newhouse in *Wallace K. Harrison, Architect* (New York: Rizzoli, 1989), 10.

[37]Newhouse, 11.

[38]Quoted in part 1 of Herbert Warren Wind's "Harrison Profiles," *New Yorker* (20, 27 November and 4 December 1954), 65

[39]Wind, 66.

[40]Harvey Wiley Corbett, "Beauty and Economics," *American Architect* 115 (1 January 1919), 12.

[41]The information on Corbett's atelier comes from Newhouse, 11.

[42]Corbett, "Beauty and Economics," 12.

[43]Wind, 65.

[44]Harvey Wiley Corbett, "Facts, Factories, and Frills," *American Architect* 113 (27 February 1918), 237.

[45]ibid.

[46]"Corbet goes Bankrupt," *New York Times* (2 September 1914), 6.

[47]"Corbett Testifies in Case Against Magnesia Asbestos Company," *New York Times* (24 January 1913), 5; *New York Times* (24 January 1913), 3.

[48]Harrison recalled this country club deal as the source of Corbett's financial problems, in Newhouse, 27.

[49]Newhouse, 27.

[50]Another factors may have contributed the split: Pell was well connected to New York's social elite by both birth and marriage, and in those circles, professional association with an indicted felon may have casused him troubles among his peers at the Colonial Lords of Manors and the Rockaway Hunting clubs. For Pell's social affiliations, see "Pell, F Livingston," 302.

[51]Previous to his partnership with Corbett, Helmle had worked most successfully with Ulrich Huberty (1877-1910) before Huberty's untimely death. Works of theirs included two elegant neo-Palladian buildings for Prospect Park—the Tennis House and the Boat House, both of 1910—and the deliciously Spanish Baroque St. Barbara's Roman Catholic Church, also completed in 1910. For the Prospect Park buildings, see Robert A.M. Stern,Gregory Gilmartin, and John Montague Massengale, *New York 1900* (New York: Rizzoli, 1983), 134-135, 178; for St. Barbara's, see Willensky and White, 682; for dates of the firm of Helmle and Huberty, see Dennis Steadman Francis, *Architects in Practice, New York City: 1840-1900* (New York: Committee for the Preservation of Architectural Records, 1980), 90-91.

[52]Harrison 's comments on the division of office labor are quoted in Newhouse, 27.

[53]The Brooklyn factories were appeared in the 27 February issue of *American Architect.* Harvey Wiley Corbett, "Facts, Factories, and Frills," *American Architect* 113 (27 February 1918), 233-238.

[54]Robert A. M. Stern, Gregory Gilmartin, and Thomas Mellins, *New York 1930* (New York: Rizzoli, 1987), 524.

[55]Corbett, "Facts, Factories and Frills," 237.

[56]Perret's Apartment block of 1903 on the Rue Franklin and the Garage in Rue Ponthieu of 1906 were two of his signature works; both are cited by Banham, 5. Kahn's reknowned concrete-frame factory in Highland Park for the Ford Motor Car company was completed in 1910; see Grant Hildebrand, *Designing for Industry: The Architecture of Albert Kahn* (Cambridge: MIT Press, 1974).

[57]Interestingly enough, only a few years after the Pathé Frères and Ralph Leininger, Esquire buildings, Helmle & Corbett designed in 1920 the ten-story Fletcher building (also known as the Varick Building), a manufacturing and warehouse loft detailed with gothic elements [fig. 22]. The manner in which the block was proportioned and the decorative accents were carefully rationed recalled not the firm's own earlier industrial buildings so much as Cass Gilbert's sublime concrete-gothic warehouses for the U.S. Army Supply Base in Brooklyn, completed just two years previous in 1918. See Frank J. Helmle, "Architectural Expressions in Concrete," *Architectural Forum* 34 (January 1921), 11-17; "Varick Street Building, New York," *The American Architect* 122 (30 August 1922), 185-188; "Fletcher Building, Varick Street, New York," *Architectural Forum* 39 (September 1923), plates 54-55, Stern, *New York 1930*, 519.

[58]"A Tower that Symbolizes a Business Philosophy," *Literary Digest* 66 (10 July 1920), 74-75. Also see "Bush, Irving Ter," *The National Cyclopaedia of American Biography*, vol. 14 (New York: James T. White & Company, 1917), 102-103; "Bush, Irving Ter," *The National Cyclopaedia of American Biography*, vol. 37 (New York: James T. White & Company, 1951), 73-74. Bush in fact helped Army engineer George Goethals lay out the neighboring U.S. Army Supply Base—for which Cass Gilbert designed the massive warehouses—where government shipping was eventually relocated from Bush Terminal.

[59]"Bush Terminal Sales Building," *Architecture and Building* 50 (December 1918), 59.

[60] In February of 1913, the Board of Estimate and Apportionment for the City of New York called for a Heights of Buildings Committee, proposed to "regulate the height, size, and arrangement of buildings erected within the limits of the city of New York, in order to arrest the seriously increasing evil of the shutting off of light and air from other buildings and from public streets." That appointed Committee then further appointed an Advisory Commission, directed by urban reformer Edward Bassett and supported by Manhattan Borough President George McAneny, which presented a report on December 23 of the same year, recommending building regulation within use districts of the city. On 14 May 1914, the Board of Estimates and Apportionment, supported by a new state law that legalized building regulation, authorized the appointment of the Commission on Building Districts and Restrictions to continue the work of the earlier Heights of Buildings Committee.

It was this second Commission, also directed by Bassett, that would shape the final ordinances for reasons not completely altruistic. In addition to providing "for a reasonable amount of light and air in the buildings and in the streets," Corbett himself later wrote of the ordinances, "the law was framed to stabilize and confirm property values" and "to relieve the rapidly increasing congestion in the streets." This impetus to stabilize property values through building regulations—a radical turn for a city with no precedent for zoned limitations on

buildings—came not from architects but from real estate developers, who feared that the new skyscrapers would choke their properties out of light, air, and space to grow, thus rendering vast amounts of office space unrentable. These grim side effects of tall buildings already had been realized by the Second Equitable Building of 1915, whose vast shadows lowered rents for blocks around and thus channeled developers' concerns into support for the work of the zoning commission.

After tentative reports were distributed among real estate and commercial interests to gain their approval, the Commission's issued its final report on 2 June 1916. Its recommendations, which became law, followed upon the ideas proposed some eight years earlier by David Knickerbacker Boyd, who advocated that buildings "step back" every few stories on the street front to halt the creation of "canyon streets." The actual building mass regulations were designed by Commission member George B. Ford, an architect, who carved crude building models out of soap blocks to demonstrate potential envelopes of building permitted under the ordinances. Ford, though, by no means developed the idea of the setback; David Knickerbocker Boyd had proposed in a 1908 article for *The American Architect* that the problem of canyon-like streets could be aleviated by designing buildings to "step back" every few stories, beginning at a height around one and a half times the street width.

For the history of the zoning regulations, see Heights of Buildings Commission, *Report of the Heights of Buildings Commission to the Committee on the Height, Size and Arrangement of Buildings, of the Board of Estimate and Apportionment of the City of New York, December 23, 1913* (New York: City of New York, Board of Estimate and Apportionment, 1913); Commission on Building Districts and Restrictions, *Final Report, June 2, 1916* (New York: City of New York, Board of Estimate and Apportionment, 1916); George Burdett Ford, *Building Zones, A Handbook of Restrictions on the Height, Area, and Use of Buildings, with Especial Reference to New York City* (New York: Lawyers Mortgage Company, 1917); Harvey Wiley Corbett, "High Buildings on Narrow Streets," *American Architect* 119 (8 June 1921), 603-608, 617-619; Harvey Wiley Corbett, "The Influence of Zoning on New York's Skyline," *The American Architect* (3 January 1923), 1-4; Seymour Toll, *Zoned American* (New York: Grossman Publishers, 1969).

[61]In fact, the 1913 *Report of the Heights of Buildings Commission* very carefully demonstrated in a series of diagrams how proposed limits on the bulk of buildings would have not changed the designs for either the Woolworth Building or the new Municipal Building of 1914 by McKim, Mead, and White. By comparison, the diagrams also showed how limits would have severely truncated the bulk of the despised Second Equitable Building. Heights of Buildings Commission, diagrams 3, 5, 6, 9.

[62]Plans were filed sometime before April 1916, a good measure before the July 25 cut-off date, after which all buildings were required to confrom to the new ordinances. See "Tall Merchandise Exhibition Building on Forty-Second Street at Times Square," *New York Times*, 16 April 1916, sec. 3, p. 6; "Radical Changes in Building Operations by Zone Act and Recent Court Decision," *New York Times*, 27 August 1916, sec. 3, p. 2.

[63]Editor's note to Harvey Wiley Corbett, "The Influence of Zoning on New York's Skyline," *The American Architect* 123 (3 January 1923), 1.

[64]Harvey Wiley Corbett, "New Stones for Old: America's Architectural Supremacy," *Saturday Evening Post* (27 March, 8 May, 15 May 1926), part 1, p. 7.

[65]Few tall buildings at all were designed to be viewed from three dimensions, although there were exceptions, especially with such "flatiron" buildings as Daniel Burnham's Fuller (Flatiron) Building of 1903, and a neighbor to the Bush building, the Times Tower of 1904 by Cyrus L. W. Eidlitz. The other notable office block designed entirely as a three-dimensional entity was Napoleon Le Brun's Metropolitan Life Tower of 1909, which enjoyed a corner site fronting Madison Square.

[66]Stern, *New York 1930*, 546.

[67]Stern, *New York 1930*, p. 811, note 275.

[68]Stern point out that these "Gothic" stylisms derived more from Cass Gilbert's Woolworth building than from any historical source; *New York 1930*, 547.

[69]Stern, *New York 1930*, 547.

[70]While there is no evidence that the resemblance is intentional, Corbett certainly would have known the French chapel from his stay in Paris.

[71]Corbett, "New Stones for Old," part 1, p. 6.

[72]C. Matlock Price, "The Trend of Architectural Thought in America," *Century* 102 (September 1921), 709-722.

[73]"Two Recent Architectural Successes," *Vanity Fair* 9 (November 1917), 69.

[74]Orrick Jones, "What the Modish Building Will Wear," *New York Times* (October 4, 1925), magazine sec., p. 11, 21.

[75]*Architectural Forum* (20 October 1920), 509.

[76]Talbot Faulkner Hamlin, *The American Spirit in Architecture* (New Haven: Yale University Press, 1926); Fiske Kimball, *American Architecture* (New York: Bobbs-Merrill, 1928). The Bush building also was featured in Oliver Reagan, ed., *American Architecture of the Twentieth Century* (New York: Architectural Book Publishing, 1927), and in the presumptiously titled *Masterpieces of Architecture in the United States* (New York: Charles Scribner's Sons, 1930). Corbett served on the committee that selected the contents of the later book, so the Bush Building's inclusion there is not as reliable an indicator of the tower's lasting reputation.

One other indicator of the Bush Building's lingering reputation is the fact that at the famed Beaux-Arts Ball of 1931, which architects attended in a costume of their most famous building, Corbett appeared as the Bush Tower. See Rem Koolhaas, *Delirious New York: a Retroactive Manifesto for Manhattan* (1978; New York: The Monacelli Press, 1994), 126-129.

[77]A still image of the dance sequence is reproduced in Stern, *New York 1930*, 83. The art director of the film, Jack Okey, paid careful attention to his task of recreating prominent New York landmarks. Among the recognizable towers in the architectural chorus line are the Sloan &

Robertson's Graybar Building (1925-1927), top far left; the City Bank Farmers Trust Building (1931) by Cross & Cross, bottom inside left; the twin-towered Century (1931) and Majestic (1930) apartment buildings by Irwin Chanin, flanking the stairway top; and another Corbett tower, One Fifth Avenue of 1927, immediately above and left of the Bush Tower.

[78] Edwin Avery Park, *New Backgrounds for a New Age* (New York: Harcourt, Brace and Company, 1927), 148. Park was one of the authors who considered the Bush Building to be the first setback skyscraper.

[79]Corbett cited the Gilbert Building, without any date or location, as one such imitator of his shadow brick techniquep; see 'The Influence of Zoning on New York's Skyline," 1.

[80]While the building still stands, I can identify its original occupants only from a photograph in Stern that shows it bedecked in signs for Remington typewriters. No identification is given there, and I estimate the date from the fact that the building does not appear in photos of the Bush Tower taken upon its completion. See Stern, *New York 1930*, 546.

[81]H[arvey] W[iley] C[orbett], "Architecture," *The Encyclopaedia Britannica,* 13th ed., (Chicago, 1926), vol. 1, 199-206, plate II. This point has been reinterated more clearly by Andrew Saint, "Americans in London, Raymond Hood and the National Radiator Building," *Architectural Association Files* 7 (London: 1984), 37, and Betsy Bradley and Landmarks Preservation Committee, *Bush Tower Designation Report* , LP—1561, (New York: City of New York, 1985), 7.

[82]Harvey Wiley Corbett: "Beauty and Economics," *American Architect* 115 (1 January 1919), 11-12; "The Birth and Development of the Tall Building," *American Architect* 129 (8 January 1926), 603-608, 617-619; "The Planning of Office Buildings," *Architectural Forum* 41 (September 1924), 89-93.

[83]Corbett, "New Stones for Old, part three," 178.

[84]Corbett, "New Stones for Old, part one," 6.

[85]Warvey Wiley Corbett, "The American Radiator Building, New York City, Raymond Hood, Architect," *Architectural Record* 55 (May 1924), 473-477.

[86]Dewitt Clinton Pond, "Treatment of the 'Set back,'" *Architecture* 54 (October 1926), 293-296.

[87]The complexities of the zoning ordinance prompted the Lawyers Mortgage Company to publish in book form the same diagrams that Ford had developed for the zoning commission report, along with further explanations and clarifications of the legal code. As far as I can tell, this book, along with cursory articles in architectural journals, served as the primary resources available on the zoning regulations until Corbett undertook his study on the subject in 1922. See George Ford, Herbert Swan, and F. P. Schiavone, *Building Zones; a Handbook of Restrictions on the Height, Area, and Use of Buildings, with Especial Reference to Ney York City* (New York: Lawyers Mortgage Company, 1917).

[88]Corbett, "High Buildings on Narrow Streets," 607.

[89]John Taylor Boyd, Jr., "The New York Zoning Resolution and its Influence Upon Design," *Architectural Record* 48 (September 1920), 217.

[90]Information on the Architectural League show comes from Carol Willis, "Drawing Towards Metropolis," the essay accompanying the reprint of Hugh Ferris, *The Metropolis of Tomorrow* (1929; reprint ed. Princeton: Princeton Achitectural Press, 1986), 157. The drawings also were featured in Hugh Ferriss, "The New Architecture" *New York Times* (19 March 1922), section 3, p. 7; Harvey Wiley Corbett, "Zoning and the Envelope of the Building," *Pencil Points* 4 (April 1923), 15-18; Corbett, "New Stones for Old, part 3," 16-17.

[91]Hugh Ferris, *The Metropolis of Tomorrow* , 74.

[92]Corbett, "Zoning and the Envelope of the Building," 15.

[93]Corbett, "Zoning and the Envelope of the Building," 18.

[94]Ferriss, 76.

[95]Corbett, "Zoning and the Envelope of the Building," 18.

[96]Hugh Ferriss, "Civic Architecture of the Immediate Future," *Arts and Decoration* 18 (November 1922), 12-13; quoted in Willis, "Drawing Towards Metropolis," 159.

[97]A full realization by Ferriss of the setback form's latent geomorphism can be seen in his 1929 work "Buildings Like Mountains," reproduced in Vincent Scully, *American Architecture and Urbanism* (New York: Henry Holt and Company, 1988), 152.

[98]Willis, "Drawing Towards Metropolis," 158.

[99]Among the books that cited the zoning studies were G. H. Edgell, *The American Architecture of Today* (New York: Scribners, 1928); Francisco Mujica, *The History of the Skyscraper* (Paris: Archaeology and Architecture Press, 1929); and Sheldon Cheney, *The New World Architecture* (New York: Tudor Press, 1930).

[100]Willis, "Drawing Towards Metropolis," 181.

[101]Kenneth Murchison, "Mr. Murchison Says—," *The Architect* 6 (April 1926), 100; quoted in Willis, "Drawing Towards Metropolis," 158. Other talks by Corbett included an address in 1921 to the American Institute of Architects, which was published as "High Buildings on Narrow Streets"; an article titled "The Influence of Zoning on New York's Skyline," which the editor prefaced as being "of large interest and authoritative"; a paper delivered before a Housing Conference, published shortly after as"What the Architect Thinks of Zoning," *The American Architect* 125 (13 February 1924), 149-150.

[102]H. W. Corbett, "High Buildings on Narrow Streets," 617.

[103]H. W. Corbett, "Architecture," *Encyclopaedia Britannica*, 14th edition (New York: 1929), 2:274; Ferriss, *Metropolis of Tomorrow,* 82

[104]Walter H. Kilham, Jr., *Raymond Hood, Architect* (New York: Architectural Book Publishing Company, 1973), 16.

[105]Albert Christ-Janer, *Eliel Saarinen: Finnish-American Architect and Educator* (1948; Chicago: The University of Chicago Press, 1979), 58.

[106]*The International Competition for a New Administration Building for The Chicago Tribune, MCMXXII* (Chicago: The Tribune Company, 1923), plate 34.

[107]Willis was one of the first to make clear that Corbett and Ferriss' studies appeared before Saarinen's Tribune entry; see both "Zoning and Zeitgeist," and "Drawing Towards Metropolis."

[108]Louis Sullivan, "The Chicago Tribune Competition," *The Architectural Record* (February 1923), 151-157.

[109]Morris Lapidus, *An Architecture of Joy* (Miami, 1979), 54; quoted by Newhouse, 30.

[110] Corbett, "Zoning and the Envelope of the Building," 15-18.

[111]Carol Willis observed that when this historicist drawing appeared in The New York Times Magazine of 29 April 1923, page 5, it was captioned "Architect's Vision of the Skyscaper of the Future, Soaring 1000 Feet and Covering a Whole City Block. Designed by Helmle and Corbett." Corraborating this attribution, Ferriss never included this image among his reproductions of the studies. Willis, "Drawing Toward Metropolis," 158, 181, n. 39.

Ferriss would later title one of the illustrations in *Metropolis of Tomorrow* "Reversion to Past Styles," and have this to say about such works:

> When the New York Zoning Law came into existence, and the new pyramid-like limitation, or 'envelope' was placed over city blocks, the reaction of many architects was simply to fill this envelope with the same conventional forms with which they had always been occupied. Thus, we began to see facades, composed of the familiar base, shaft and crowning member, rising vertically from the grade as high as was permitted; where the law required the first set-back, the architect simply affixed a handsome cornice and calmly went on to repeat himself; that is to say, he started another, smaller building on top of the first, again composed of base, shaft and capital. This seemed to continue indefinitely—one "classic" building on top of another—until the total permissable volume was somehow filled.

And with words that could not help but recall Corbett's earlier finished zoning study scheme, Ferriss continued:

> One is scarcely in sympathy with this mechanical procedure; but since the author's aim in this section is to illustrate existing trends, it becomes his duty to show what would happen if architects continued piling Parthenons upon skyscrapers!

See Ferriss, *Metropolis of Tomorrow*, 92.

[112]Corbett, "Zoning and the Envelope of the Building," 18.

[113]"The Coming City of Setback Skyscrapers," *New York Times* (29 April 1923), sec. 4, p. 5.

[114]Carol Willis, "Zoning and Zeitgeist: the Skyscraper City in the 1920s," *Journal of the Society of Architectural Historians* 45 (March 1986), 53.

[115]Koolhaas, 113.

[116]Corbett, "New Stones for Old, part 3," 177.

[117]"The Bush Terminal Building in London," *The American Architect* 117 (31 March 1920), 407-408.

[118]Harvey Wiley Corbett, "The Architecture of the Bush Buildings, London," *The American Architect* 120 (20 July 1921), 35.

[119]"The Bush Terminal Building," 408.

[120]"The Bush Terminal Building" 407.

[121]Henry-Russell Hitchcock, *Architecture: Nineteenth and Twentieth Centuries*(1958; New York: Penguin Books, 1990), 546.

[122]Harvey Wiley Corbett, "A Letter from Harvey Wiley Corbett," *The American Architect* 128 (12 August 1925), 159-160; "Corbett, Harvey Wiley," *The National Cyclopaedia* , 130.

[123]Frank J. Helmle, "The Arch of Democracy," *The American Architect* 115 (15 January 1919), 94-95.

[124]"Competition for the New York State Roosevelt Memorial," *The American Architect* 128 (1 July 1925), plates 172-175.

[125]The Stambaugh Memorial is listed (with no date) in Corbett's promotional book as one of the principle buildings he completed with Helmle. A copy of the main elevation was kept in his files as well. Corbett archive, Box 8.

[126]Corbett archive, Box 4. No date is given on the drawings, but the competition must have been held before 1926, when construction began on Paul Cret's winning courthouse plan.

[127]For the museum project, see "Competition for Museum of the City of New York," *American Architect* 133 (5 May 1928), 619. Photos of the Crum and Foster projects are contained in the Corbett archive, Box 3; the Plaza Trust Company is the subject of "A Successful Alteration Job," *American Architect* 135 (5 April 1929), 455-458.

Several different unidentified Beaux-Arts schemes are in the Corbett archive, Box 4, including the one illustrated. The base of that project most strikingly resembles the guinguette projects of French architect and theorist Claude Nicolas Ledoux (1736-1806) [fig. 56]. The elevations of the tower itself are strikingly similar to Cass Gilbert's 1936 United States Courthouse [fig. 57]. Whether the two designs are related is unclear; on the one hand, the courthouse on Foley Square was under construction at nearly the same time as Corbett's Criminal Courts building, just a block away. However, the style of Corbett's tower is unlike anything that the architect built after 1930. I suspect it to be an earlier project, and its similarity to Gilbert's courthouse coincidental.

[128]Hamlin, 325.

[129]While Helmle was given credit for the lighthouse idea, Corbett is acknowledged as "the architect of the Memorial since its inception," in William Adrian Brown, *History of the George Washington Masonic National Memorial: 1922-1974, Half Century of Construction* (n.p., 1980), 8.

[130]Manfredo Tafuri, *The Sphere and the Labyrinth: Avant-Gardes and Architecture from Piranesi to the 1970s* (Cambridge: The MIT Press, 1990), 179.

[131]Washington Irving, *A History of New York, from the Beginning of the World to the End of the Dutch Dynasty, by Diedrich Knickerbocker* (1809), quoted in van Leeuwen, 15. Van Leeuwen offers, among many other insights, a thorough exploration of the association of Babylon with American architecture.

[132]Hendrik P. Berlage, *Amerikaansche reisherinneringen* (Rotterdam: 1913), as quoted in van Leeuwen, 13.

[133]van Leeuwen, 43.

[134]"Towers of Babel," *The New York Times* (7 March 1920), sec. 2, p. 2.

[135]"Towers of Babel," *The American Architect* 117 (28 April 1920), 521-522.

[136]Corbett, "Zoning and the Envelope of the Building," 18.

[137]Le Corbusier, *Quand les cathédrals éteaient blanches* (1937), as quoted in van Leeuwen, 14. Interestingly enough, a rough sketch of Corbett's zoning study decorated the cover at least the American edition of Le Corbusier's book.

[138]Ferriss, "The New Architecture," 8. See also "The Hanging Gardens of Babylon: A Vision of What the Future May or May Not Bring," *Literary Digest* (14 June 1924), 31.

[139]Descriptions of the roof gardens can be found in Stern, *New York 1900*, 220-223.

[140]Joseph Rykwert, *On Adam's House in Paradise* (1972; Cambridge: The MIT Press, 1984), 120. The two other constructions commonly held to be divine were Noah's Ark and the Ark of the Covenant, which also were built according to the direct instruction of God.

[141]Eugene Clute, "Restoration of King Solomon's Temple and Citadel, Helmle and Corbett, architects," *Pencil Points* 6 (November 1925), 69-86.

[142]Ferriss' inspiration may have been the colossal Babylonian courtyard scene of D. W. Griffith's film *Intolerance*, shot in 1916; Willis, "Drawing Towards Metropolis," 161.

[143]For a complete listing of the publication and showings of the drawings, see Willis, "Drawing Towards Metropolis," 181 n. 51, and Tafuri, 179, 343 n. 27.

[144]Clute, 71. As Brian Bubenzer wryly observed, authentic construction methods would have required the labor of slaves; perhaps Kelchner considered Depression-era wages low enough to qualify the workers as such.

[145]Van Leeuwen, 53, fig. 21.

[146]Clute, 86.

[147]Van Leeuwen devotes an entire chapter to this retrogenetive phenomenon, terming it "Apokatastasis," meaning "Eternal Return," or the general repetition of things over time. van Leeuwen, 39-55.

[148]W. K. Oltar-Jevsky, with an introduction by Harvey Wiley Corbett, *Contemporary Babylon* (New York: Architectural Book Publishing Company, 1933).

[149]Clute, 70.

[150]In 1918 New York City counted 125,101 automobiles in its bounds, approximately equal in number to the horses on the city's streets. As of 1931, the number of motor vehicles had skyrocketed to 790, 173. During that same time, not a mile of arterial roads had been built within the city; most traffic improvements involved converting streets to one-way travel and banning left-hand turns at busy intersections. Robert Caro, *The Power Broker: Robert Moses and the Fall of New York* (New York: Alfred A. Knopf, 1974), 329.

[151]Robert L. Duffus, "The Vertical City," *New Republic* 59 (3 July 1929), 169-172, as quoted in Stern, *New York 1930*, 35.

[152]Lewis Mumford, "Is the Skyscraper Tolerable?" *Architecture* 55 (February 1927), 67-69, as quoted in Stern, *New York 1930*, 35.

[153]"Curran to Ask Ban on Skyscrapers," editorial, *New York Times* (8 June 1926), 25, as quoted in Stern, *New York 1930,* 36.

[154]Henry Curran, "The Skyscraper Does Cause Congestion," *National Municipal Review* 16 (April 1927), 233.

[155]Raymond Hood, as quoted in Koolhaas, 166.

[156]Raymond Hood, as quoted in Koolhaas, 166. It is unclear whether Hood was familiar with Le Corbusier's similar scheme for "A City of Towers," published in Le Corbusier's 1927 manifesto *Towards a New Architecture* but existing in fragments since at least 1923, according to the dates ascribed to the plans by Le Corbusier. See Le Corbusier, *Towards a New Architecture* (1927; New York: Dover, 1986, 56-63.

[157]Thomas Adams, *Regional Plan of New York and Its Environs: Volume Two, The Building of the City* (New York: Regional Plan of New York and Its Environs, 1931), 306-307.

[158]Koolhaas, 167.

[159]Harvey Wiley Corbett, "Up With the Skyscraper," *National Municipal Review* 16 (February 1927), 95-101.

[160]Corbett, "What the Architect Thinks of Zoning," 150.

[161]Harvey Wiley Corbett, "Design in Office Buildings," *Architectural Forum* 52 (June 1930), 779. See also Harvey Wiley Corbett and Henry Curran, "Skyscrapers and Traffic Congestion," *American Architecture* 131 (20 March 1927), 386; Harvey Wiley Corbett, "New Heights in American Architecture," *Yale Review* 17, No. 4 (July 1928), 690-701.

[162]"Calls Skyscrapers City's Chief Asset," *New York Tlmes* (19 November 1926), 27, as quoted in Stern, *New York 1930,* 38.

[163]Corbett, "Up With the Skyscraper," 100.

[164]Corbett, "Up With the Skyscraper," 101.

[165]Corbett, "New Stones for Old, part two," 189.

[166]H.W. Corbett, "The Problem of Traffic Congestion, and a Solution," *Architectural Forum* 46 (March, 1927), 201.

[167]Mario Canato points out the natural/mechanical dichotomy of Corbett's approach in his *Pragmatic Thinking in the Ideas of the Skyscraper: Architects of the 1920s* (PhD diss., University of Pennsylvania, 1992), 75.

[168]Adams, 306.

[169]*King's Views of New York* (New York: Moses King, Inc., 1912).

[170]"To Relieve Traffic Congestion in New York," editorial, *American Architect* 119 (30 March 1921), 395. The friendship between Corbett and Brunner was outlined by Corbett in his commemorative article on Brunner following his death in 1925; Harvey Wiley Corbett, "In Appreciation of Arnold W. Brunner (1857-1925)," *Architectural Record* 57 (May 1925), 461-462.

[171]Committee of Architects, Harvey Wiley Corbett, Chair, as quoted in Adams, 308-309.

[172]Ibid, 310.

[173]Ibid, 309.

[174]Corbett, "The Problem of Traffic Congestion, and a Solution," 205.

[175]Koolhaas, 123.

[176]Stern, *New York 1930*, 526.

[177]Harvey Wiley Corbett, "A Bold Project of Industrial Decentralization, *The American City* 42 (June 1930), 147-148.

[178]Stern, *New York 1930*, 332.

[179]Leich, 133 n. 32. Corbett would continue to employ Ferriss for renderings of the architect's designs.

[180]Leon Solon, "The Titan City Exhibition," *Architectural Record* 59 (January 1926), 94, as quoted in Willis, "Drawing Towards Metropolis," 161.

[181]Lewis Mumford, "The Sacred City," *New Republic* 45 (27 January 1926), 270-271.

[182]Corbett, "New Stones for Old, part one," 157-158.

[183]"Harvey Corbett, Dead," 27; "Corbett, Harvey Wiley," *Who Was Who in America*, vol. 3 (Chicago: A. N. Marquis Company, 1960), 184; "Corbett, Harvey Wiley," *The National Cyclopaedia*, 130.

[184]"Architect Harvey Corbett dies at 81," *Architectural Forum* 100 (May 1954), 45-46. The same story, more or less, was retold by Corbett about problems with the reconstruction of the New York Chamber of Commerce suite; see "New Stones for Old, part two," 26-27.

[185]Leich, 6-7.

[186]"Church of the Holy Innocents, Brooklyn, Helmle & Corbett, architects," *Architectural Forum* 47 (July 1927), plates 9-14; for the People's Trust Bank of Hackensack New Jersey (1926-1928), see the Corbett archive, Box 6.

[187]Newhouse, 30.

[188]Newhouse, 30. Corbett preferred his office kept small, and was quoted as saying, "I can feed ideas to 10 men," but "if there are 11 men, they feed ideas to me"; see "Memorial Dinner to Harvey Wiley Corbett," Journal of the Royal Institute of British Architects 3rd series, vol. 62 (October 1955), 479.

[189]"Pennsylvania Power & Light Building," *American Architect* 135 (5 May 1929), 576; "Building for Pennsylvania Power and Light," *Architectural Forum* 52 (June 1930), 836, plate 157; Corbett archive, Box 5.

[190]Corbett had helped assemble an exhibition of American architecture for a 1925 exhibition at the Berlin Akademie der Künst, and presumably attended the show. See Cervin Robinson's essay, "Buildings and Architects," in his book with Rosmarie Haag Bletter, *Skyscraper Style: Art Deco New York* (New York: Oxford University Press, 1975), 12.

[191]It is not known if Corbett attended the Paris exposition, though he may well have been in Europe at the same time for the Berlin Akademie exhibition. In either case, he likely would have been familiar with the aesthetic of the widely-publicized Paris exposition. Rosemarie Haag Bletter offers an excellent study of the the widespread effects of the Exposition and other European modernisms on American architecture, in her essay "The Art Deco Style," in *Skyscraper Style*, 35-81.

[192]"New 27-Story Pyramid STructure for No. 1 Fifth Avenue," *Real Estate Record and Guide* 117 (5 June 1926), 7; "Building Proposed at No. 1 Fifth Avenue, New York" *The American Architect* 131 (20 February 1927), plate 223; T-Square, "The Sky Line: A Temple of Beauty Gleams—Patrician Grayness where Fifth Avenue Meets the Park," *New Yorker* 3 (1 October 1927), 62-64. Ralph W. Sexton, *American Apartment Houses, Hotels and Apartment Hotels of Today* (New York: Architectural Book Publishing Company, 1929), n.p., "Recent Apartment Houses in New York," *Architectural Forum* 53 (September 1930), 299-300; Betsy Bradley and Landmarks Preservation Committee, *Master Building* , LP—1661, (New York: City of New York, 1989).

[193]"A Matter of Scale: The Problems That Confronted the Architects of a Skyscraper Hotel in New York," *The American Architect* 133, (5 April 1928), 467. Among the lower buildings around the base of One Fifth Avenue was the apartment building at 4-26 East 9th Street, immediately behind the skyscraper, that had been rennovated by Corbett in 1916 for the Sailor's Snug Harbor organization [fig. 92]. Corbett would design several two other apartment blocks in the neighborhood for Sailor's Snug Harbor: a 10 story block flush to the sidewalk along 38-58 East 10 Street, circa 1929, and an group of three blocks around deep courts at 29, 35, and 45 East 9th Street, built sometime between 1935 and 1941. For illustrations of 38-58 East 10th Street, see Sexton, 82-83; and "Apartment House, 38 to 58 East Tenth Street, New York," *American Architect* 135 (5 February 1929), 150.

[194]Stern points out the strong resemblence between this lobby and the work of Viennese architect Adolf Loos, in *New York 1930*, 400.

[195]"Riverside Drive's Tallest Building Under Way," *Real Estate Record and Guide* 122 (28 July 1928), 7; "The Roerich Museum and Master Apartment Building, New York," *Architectural Record* 66 (December 1929), 509-518, 527-535; "Recent Apartment Houses in New York," 295-296; Harvey Wiley Corbett, "Architecture of the Master Building," in *Message of 1929*, Roerich Museum Series, (New York: Roerich Museum Press, 1930), 140-142; Landmarks Preservation Committee, *Master Building* , LP—1661, prepared by Betsy Bradley (New York: City of New York, 1989).

[196]The only mention of the "Belden Project" comes from Hugh Ferriss in *Metropolis of Tomorrow*, 33-34. On the following page, he describes the Master Building as a more mature working of the Belden scheme.

[197]Ferriss, *Metropolis of Tomorrow*, 34. The gradual lightening of the building's surface may have been suggested by Roerich according to Willensky and White, 304-305. Similar colored brick effects had been employed by Peter Behrens in the I. G. Farben Dyeworks, built between 1920-1924, and illustrated in *The American Architect* in 1925; on Behrens, see Bletter, "The Art Deco Style," 55.

[198]Newhouse, 33.

[199]Newhouse, 33.

[200]"Reflecting the Spirit of Today: Building for the National Title Guarantee Company, Brooklyn, N.Y.," *American Architect* 137 (May 1930), 26-31.

[201]The balustrudes and lamp pedestals here looked remarkably like the flared columns in the Foyer of Hans Poelzig's Grosses Schauspielhaus, 1919, pictures of which were shown in *The American Architect* in 1923, among other journals and books. On Poelzig, see Bletter, "The Art Deco Style," 58.

[202]Willensky and White, 215; Corbett archive, Box 6.

[203]Corbett served as treasurer of a committee that worked through the depression to find work for unemployed architects and draftsmen; see "Harvey Wiley Corbett, Architect, Dead," *New York Times* (22 April 1954), sec. 2, p. 27.

[204]"The Skyscraper Competition," editorial, *Architect* 13 (November 1929), 147, as quoted in Stern, *New York 1930*, 610. Other records of the proposed Metropolitan Life tower include "Preliminary Sketch of Proposed Building, New York," *Architectural Forum* 52 (June 1930), 789; Stern, 535-537; Corbett archive, Box 5.

[205]Stern, *New York 1930*, 610.

[206]Ferriss depicted the "Art Center" in *Metropolis of Tomorrow*, 114-115; for pictures of the Irving Trust Building, see Robinson and Bletter, *Skyscraper Style*, plates 54A-H; German expressionist skyscrapers are reviewed in Banham, 68-78, 265-268, 289-290.

[207]Corbett's wish to create a steel and glass wall is mentioned in Stern, *New York 1930*, 537.

[208]Albeit, the building occupied a short 200 by 400 foot block between Madison and Park Avenues, not the standard 200 by 800 foot block of the size portrayed in the 1922 zoning study. For building statistics, see Harvey Wiley Corbett, "Metropolitan Life Insurance Company, New Home Office Building in New York," *Architectural Record* (September 1933), 175-178; "Metropolitan Life New Home Office," *Architectural Record* (September 1933), 179-185.

[209]Corbett had quite a fascination for pneumatic tubes and he cited them extensively in a description of futuristic airport. See Harvey Wiley Corbett, "The Airport of the Future," *Architectural Forum* 52 (January 1930), 71-74.

[210]"Criminal Courts Building and City Prison, New York City," *Architectural Forum* 76 (April 1942), 253-260.

[211]"Designed by John Haviland and build 1836-1838, "The Tombs" was properly called the Halls of Justice.

[212]As quoted in Koolhaas, 178.

[213]Carol Herselle Krinsky, *Rockefeller Center* (New York: Oxford University Press, 1978), 40. Drawings and a written description of Corbett's Rockefeller Center proposal can be found in the Corbett archive, Boxes 6 and 7.

[214]The best account of how Corbett reapplied his earlier ideas to the Rockefeller Center proposal is offered by Koolhaas, 185-187.

[215]Krinsky, 40.

[216]Krinsky, 41.

[217]Krinsky, 47.

[218]H. W. Corbett, "The Significance of the Exposition," *Architectural Forum* 59 (July 1933), 1.

[219]The individual architect's schemes were reprinted in Allen D. Albert, "The Architecture of the World's Fair," *The American Architect* 135 (5 April 1929), 421-430.

[220]A chronology of the planning of the exposition was given in Louis Skidmore, "Planning and Planners," *Architectural Forum* 59 (July 1933), 21-30.

[221]Harvey Wiley Corbett, "The Significance of the Exposition," *Architectural Forum* 59 (July 1933), 1.

[222]Skidmore, 23.

[223]Corbett, "The Significance of the Exposition," 1.

[224]Ely Jacques Kahn, "Close-Up Comments of the Fair," *Architectural Forum* 59 (July, 1933), 23.

[225]The play of horizontal and vertical of these towers reminds me of the Dutch entries to the Chicago *Tribune* Tower competition of ten years earlier, designs that Corbett would have been familiar with as a competitor in the competition.

[226]"People: Architect Harvey Corbett dies at 81," 46. To the best of my knowledge, Corbett had designed no houses before 1930, not even one for himself he lived on New York's upper Upper East Side.

[227]"The Modern Houses of the Century of Progress Exposition," *Architectural Forum* 59 (July 1933).

[228]"The Trend of Progress in House Design," *American Architect* 143 (July 1933), 22-29.

[229]Harvey Wiley Corbett,"Sun House," in *Forward House* (New York: R. H. Macy & Co, 1933), n. p.

[230]Corbett,"Sun House," n. p.

[231]Lewis Mumford, "The Sky Line: Beer and Grass—The Big Boys Turn Modern," *New Yorker* 9 (7 October 1933), 48-50, as quoted in Stern, *New York 1930*, 352.

[232]Frank Lloyd Wright, "In the Show Window at Macy's," *Architectural Forum* 59 (November 1933), 420-421.

[233]"New Structural System Employs no Nails," *Architectural Record* 88 (August 1940); "To Market," *Architectural Forum* 73 (September 1940), 2.

[234]John Cushman Fistere, "Skyline architects turn to houses," *House and Garden* 65 (January 1934), 36.

[235]"New Building Technique May Be a Solution for Post-War Industry," *Architectural Record* 90 (December 1941), 26.

[236]"New Building Technique May Be a Solution for Post-War Industry," 26.

[237]"New Building Technique May Be a Solution for Post-War Industry," 26.

[238]"New Building Technique May Be a Solution for Post-War Industry," 26.

[239]"New Building Technique May Be a Solution for Post-War Industry," 26.

[240]"William Wilson Wurster," *Architectural Forum* 79 (July 1943), 48-51

[241]"Duplex Apartments in Economy Role," *Architectural Record* 102 (November 1947), 86-Í88.

[242]The final organization chaired by Corbett, the Architects Committee of the National Council of American-Soviet Friendship, was doomed to failure by the onset of the cold war and by the attitude that the advent of American architecture would help "to make Christians out of them over there." See "American-Soviet Building Conference," *Architectural Record* 97 (June 1945), 30; "Architect Corbett dies at 81," 46.

[243]When Corbett temporarily abandon his support of the skyscraper, he likely had very much on his mind the safety of his daughter, Jean Corbett Peck, who before the war had married and settled in England. See "Harvey Corbett, Architect, Dead," 27. Corbett's final "modern Venice" offering came in Harvey Wiley Corbett, "A Sort of Modern Venice," in "New York in 1999—Five predictions," *New York Times* (6 February 1949), magazine, p. 18.

[244]"Architect Harvey Corbett dies at 81," 45.

Appendix: Building List

Administration Building, Compagnie des Tramways Éléctriques
Harvey Wiley Corbett
Geneva, Switzerland
1900

Maryland Institute
Pell & Corbett
Baltimore, MD
1905-1908

Springfield Municipal Group
Pell & Corbett
Springfield, MA
1908-1913

Brooklyn Masonic Temple
Lord & Hewlett, Pell & Corbett, associated architects
317 Claremont Avenue
Brooklyn, NY
1909

New York School of Applied Design for Women
Pell & Corbett
160 Lexington Avenue
New York City, NY
1909

Sperry Gyroscope, Brooklyn NY
Helmle & Corbett
Brooklyn, NY
circa 1912-1918

Thomas Shoe Company, Brooklyn NY
Helmle & Corbett
Brooklyn, NY
circa 1912-1918

Ralph Leininger, Esq. Building, Brooklyn NY
Helmle & Corbett
Brooklyn, NY
circa 1912-1918

Pathé Frères Building, Brooklyn NY
Helmle & Corbett
Brooklyn, NY
circa 1912-1918

St. Gregory's Roman Catholic Church
Helmle & Corbett
224 Brooklyn Avenue
Brooklyn, New York
1915

Apartment House
original architect unknown; remodeled by Harvey Wiley Corbett
4-26 East 8th Street
New York, NY
1834-1836; remodeled 1916

Bush Terminal Building
Helmle & Corbett
132 West 42nd Street
New York City, New York
1917-1918; addition, 1920-1921

Arch of Democracy, Brooklyn
Helmle & Corbett
Proposal
1919

Bush House
Helmle & Corbett
Aldwych and the Strand
London, England
1920-1927

Varick (Fletcher) Building
Helmle & Corbett
80-92 Varick Street
New York, New York
1920?

Richmond Hill Baptist Church
Helmle & Corbett
Richmond Hill, Long Island
circa 1920-1925

Greenpoint Hospital
Helmle & Corbett
Brooklyn, NY
circa 1920-1925

Church of the Redeemer
Helmle & Corbett
Brooklyn, NY
circa 1920-1928

King's County Hospital Buildings
Helmle & Corbett
Brooklyn, NY
circa 1920-1928

Chamber of Commerce Rooms
Helmle & Corbett
New York, NY
1921

Chicago Tribune Competition
Helmle & Corbett
competition
1922

George Washington National Masonic Monument
Helmle & Corbett, Osgood and Osgood, consulting architects
Alexandria, Virginia
1922-1932

Hartford County Courthouse
Helmle & Corbett
competition
circa 1924

Y.M.C.A.
Helmle & Corbett
Schenectady, NY
circa 1925-1928

Henry Stambaugh Memorial Auditorium
Helmle & Corbett
Youngstown, Ohio
circa 1925-1930

Navy and Marine Memorial
Harvey Wiley Corbett
Washington, D.C.
circa 1926

Church of the Holy Innocents
Helmle & Corbett
Brooklyn, NY
1926-1927

People's Trust & Guarantee Building
Helmle & Corbett
Hackensack, NJ
1927-1928

Crum and Foster Building
Helmle, Corbett, & Harrison
Atlanta, Georgia
1928-1929

Crum and Foster Building
Helmle, Corbett, & Harrison
Freeport, IL
1928-1929

Pennsylvania Power and Light
Helmle, Corbett, & Harrison
Allentown, PA
1928

Museum of the City of New York
Helmle & Corbett
competition
1928

Apartment House
Helmle, Corbett, & Harrison
38-58 East 10th Street
New York, NY
1929?

One Fifth Avenue
Helmle, Corbett, & Harrison, Sugarman & Berger, associated architects
1 Fifth Avenue
New York, NY
1929

Plaza Trust Company, alterations
Helmle, Corbett, & Harrison
New York, NY
1929

Roerish Museum and Master Apartments
Corbett, Harrison & MacMurray, Sugarman & Berger, associated architects
310 Riverside Drive
New York, NY
1929

Bushnell Memorial Hall
Corbett, Harrison, & MacMurray
Hartford, CT
1929

National Title Guarantee Building
Corbett, Harrison, & MacMurray
185 Montague Street
Brooklyn, New York, NY
1930

Garment Center
Harvey Wiley Corbett
project
1930

Ten Park Avenue
Corbett, Harrison, & MacMurray
10 Park Avenue
New York, NY
1931

MetropolitanLife Insurance Company, North Building
Harvey Wiley Corbett and D. Everett Waid
11-25 Madison Avenue
New York, NY
1930-1932; 1940.

Rockefeller Center
Associated Architects
New York, New York
1932-1940.

General Exhibits Group Building, Century of Progress Exposition
Harvey Wiley Corbett
Chicago, IL
1933

House of Today, Century of Progress Exposition
Harvey Wiley Corbett
Chicago, IL
1933

Sun House
Harvey Wiley Corbett
project
1933

Army and Navy Group
Corbett, Harrison & MacMurray, Holabird & Root, associated architects
Washington, D.C.
1933

Community Church
Corbett, Harrison & MacMurray, Robert T. Lyons, associated architect
New York, NY
1933

Brooklyn College
Randolph Evans, and Corbett & MacMurray, associated architects
Brooklyn, NY
1935

Church and School for the Church of the Good Shepherd
Corbett, Harrison & MacMurray
Brooklyn, NY
1936

Municipal Building
Corbett & MacMurray
Carmel, New York
1936(?)

Apartments at 29 and 35-45 East 9th Street
Corbett & MacMurray
29, 35-45 East 9th Street
New York, NY
circa 1935-1941

Criminal Courts Building and Men's House of Detention
Harvey Wiley Corbett and Charles B. Meyers
100 Center Street, between Leonard and White Streets
New York, New York
1937-1939

Theatre Wing Addition, Memorial Union, University of Wisconsin
Corbett & MacMurray; Michael Hare, project designer
Madison, WI
1938-1939

Sigmund Stern Women's Dormitory, University of California
Harvey Wiley Corbett, Wilson Wurster, associated architect
Berkeley, CA
circa 1940

Amsterdam Avenue Development
Afterbury, Corbett, & Holden
New York, NY
West 61st to West 64th streets, between Amsterdam and West End Avenues
after 1941

297-303 Mercer Street
Harvey Wiley Corbett
New York, New York
dates unknown

First Methodist Church
Harvey Wiley Corbett
Jamaica, Queens
dates unknown

Camp Merritt World War Memorial
Harvey Wiley Corbett
New Jersey
dates unknown

Scranton Masonic Temple and Scottish Rite Cathedral Competition
Harvey Wiley Corbett
project
undated

Unnamed Memorial Tower
Harvey Wiley Corbett
project
undated

Columbus Memorial Competition
Harvey Wiley Corbett
project
undated

Figures

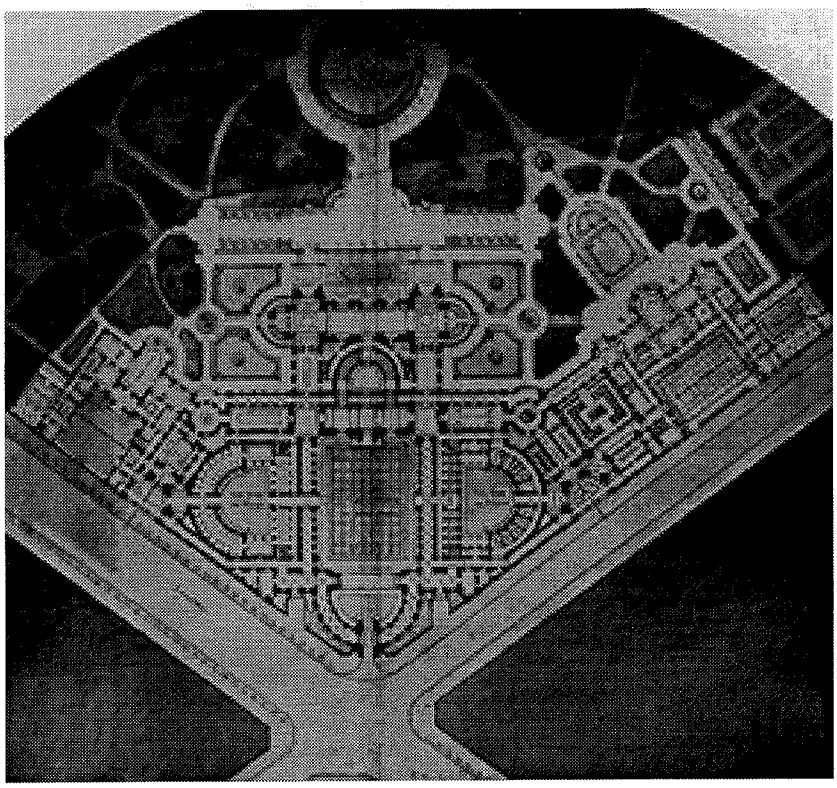


Fig. 1. Jean-Louis Pascal. *Un Hotel à Paris pour riche banquier.* 1866.

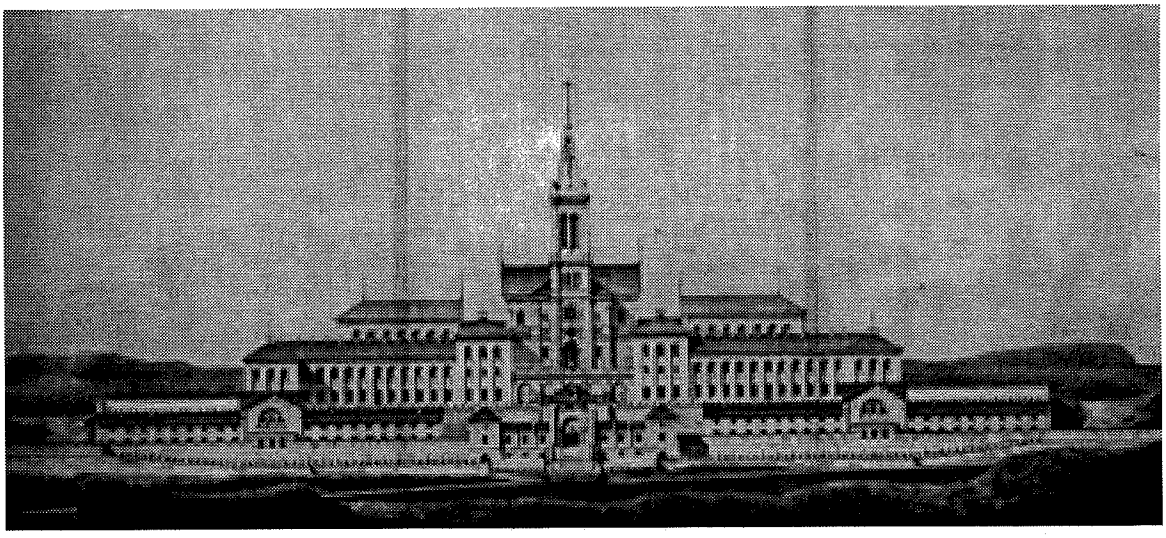


Fig. 2. Julien Guadet. *Un hospice dans les Alpes.* 1864

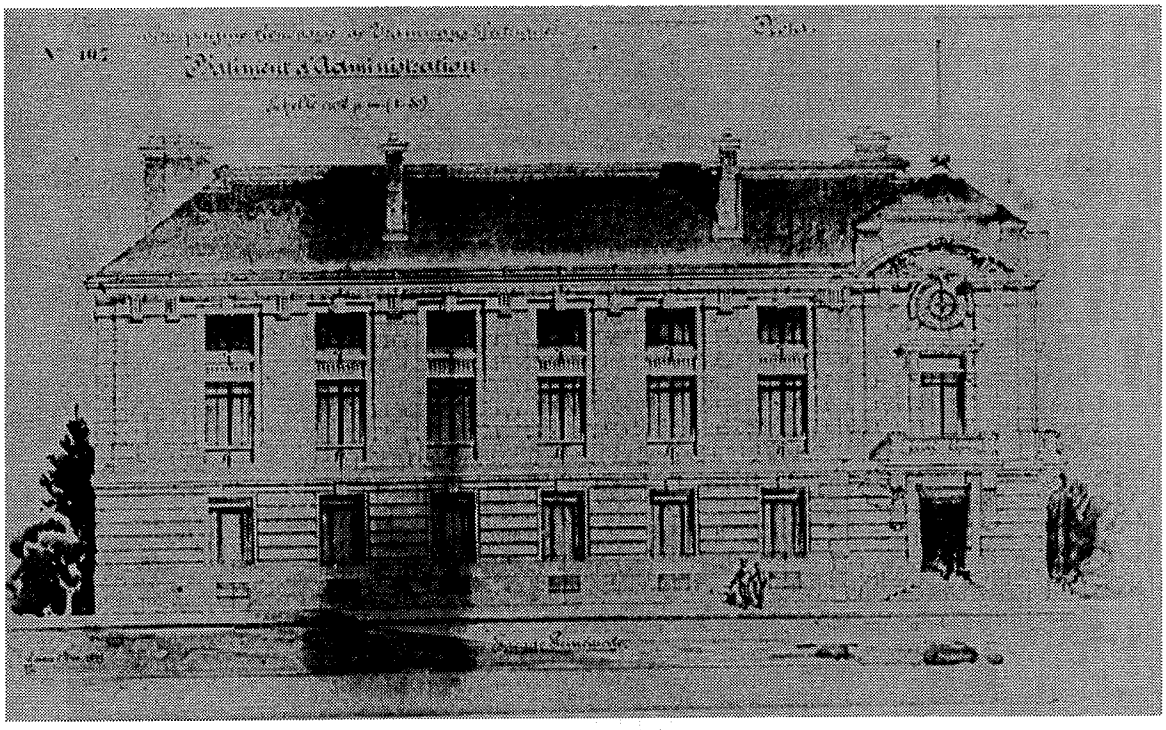


Fig. 3

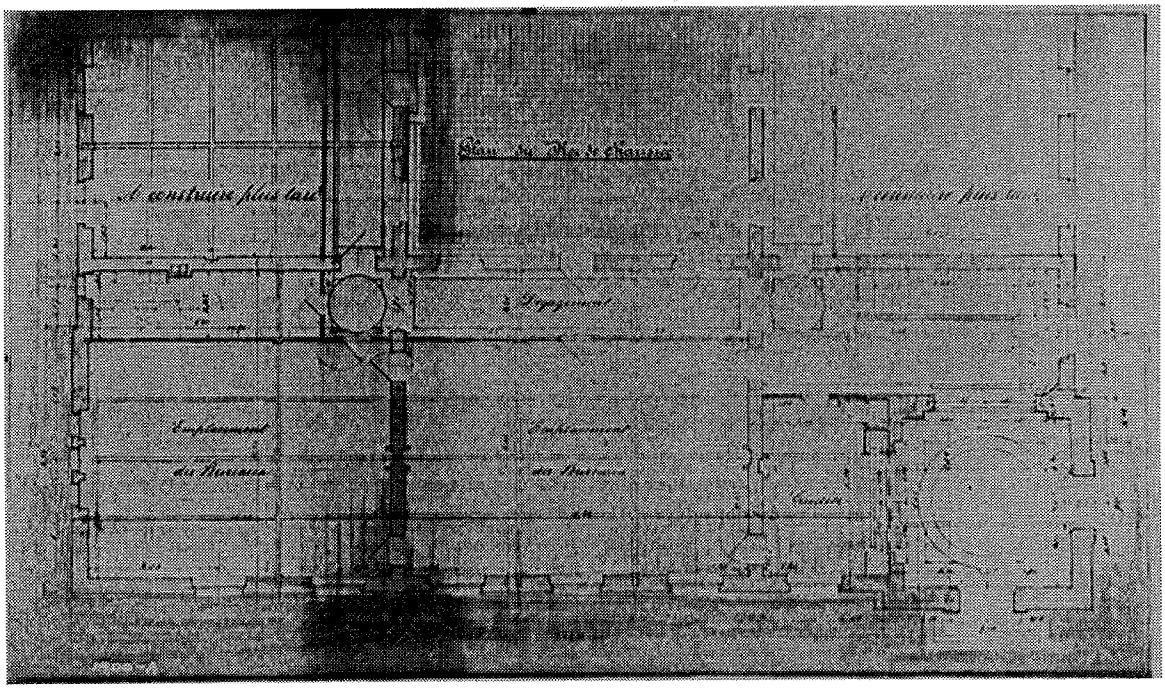


Fig. 4

Figs. 3, 4. Harvey Wiley Corbett. Compagnie Genovoise des Tramways Éléctriques 1900. Geneva, Switzerland

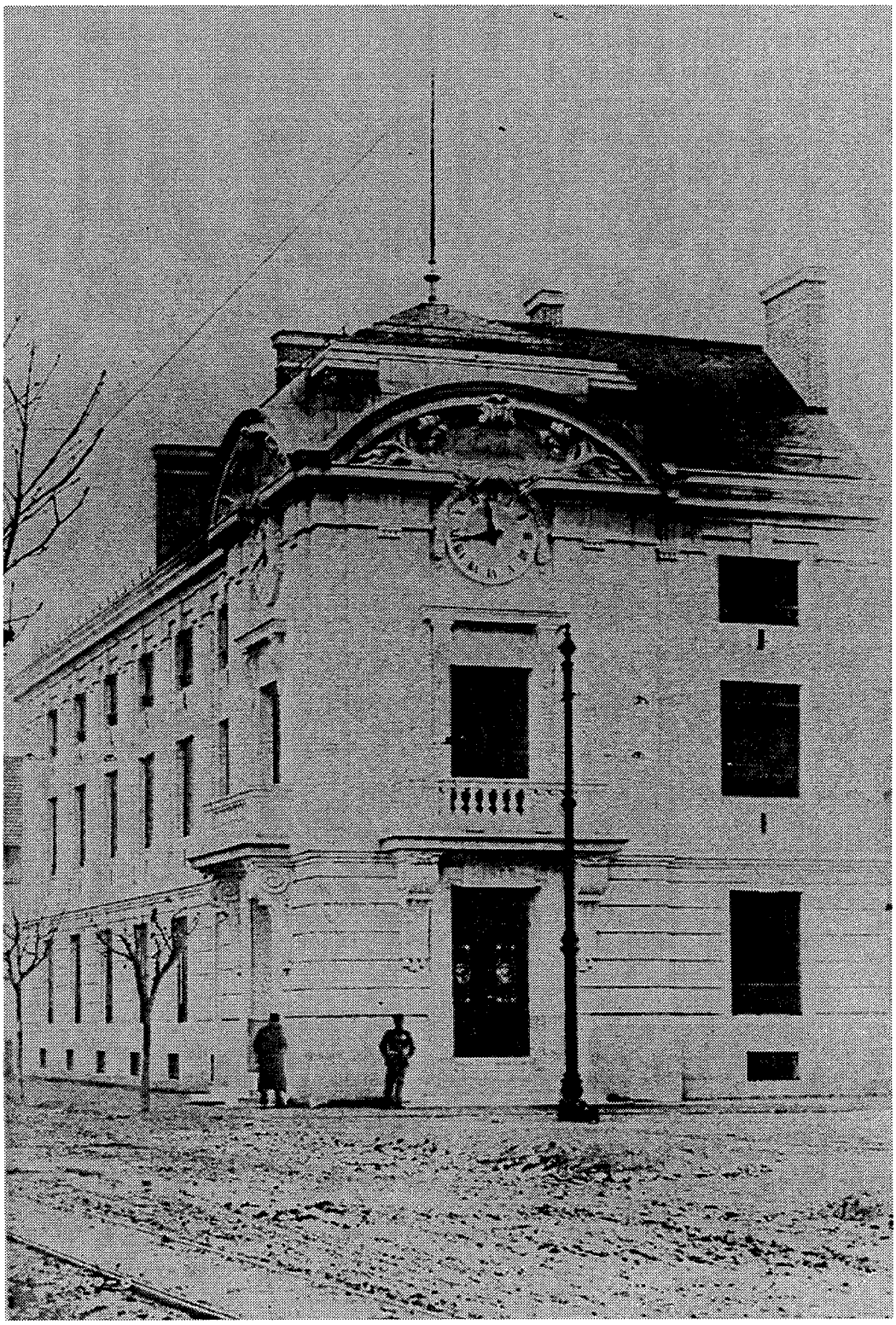


Fig. 5. Harvey Wiley Corbett. Compagnie Genovoise des Tramways Éléctriques. 1900. Geneva, Switzerland

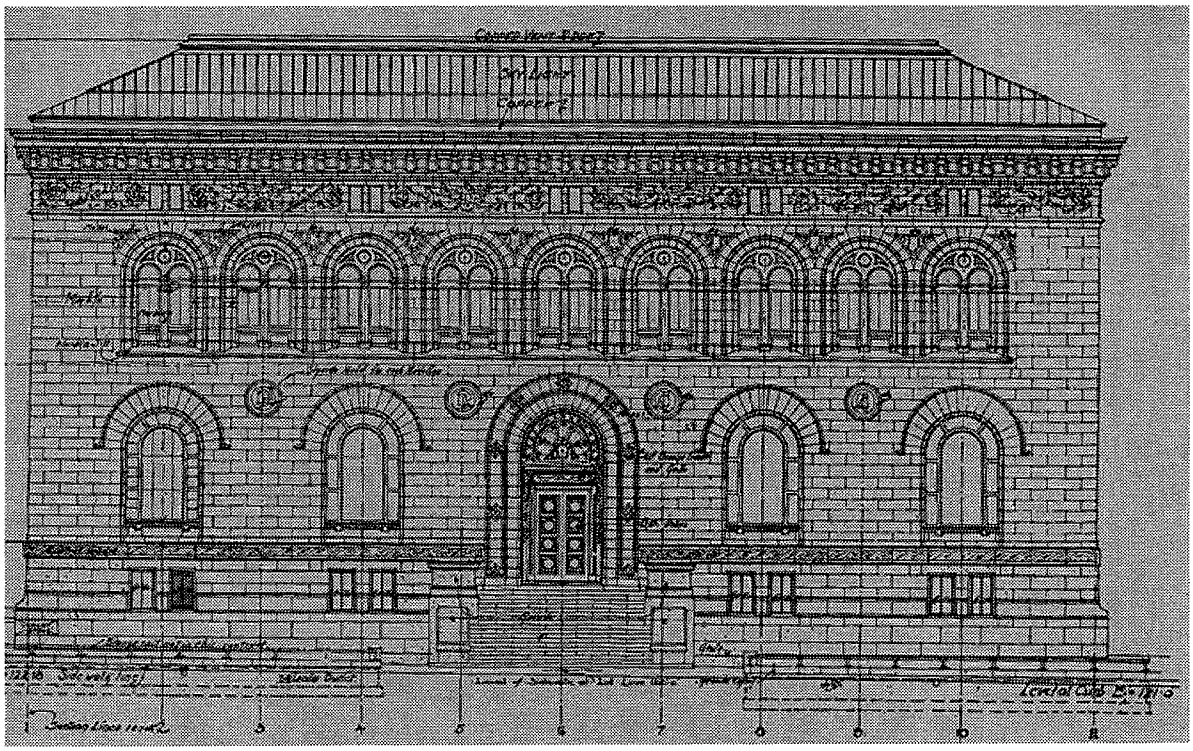


Fig. 6. Pell & Corbett. Maryland Institute, College of Art. 1905-1908
Baltimore, Maryland

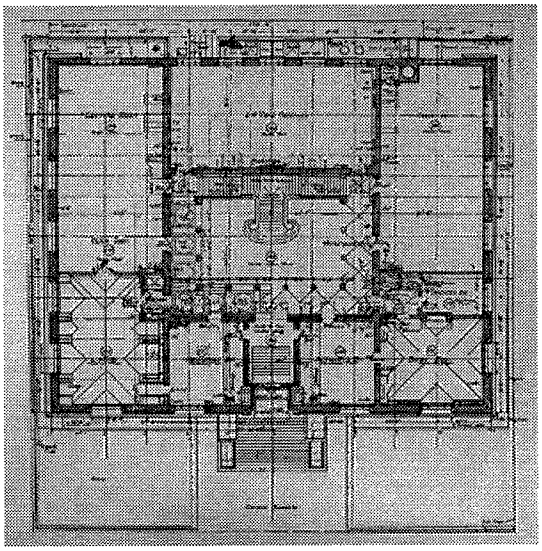


Fig. 7

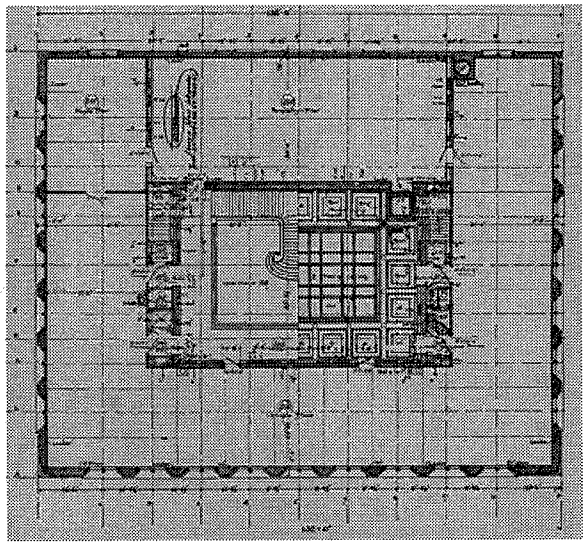


Fig. 8

Figs. 7, 8. Pell & Corbett. Maryland Institute, College of Art. 1905-1908
Baltimore, Maryland

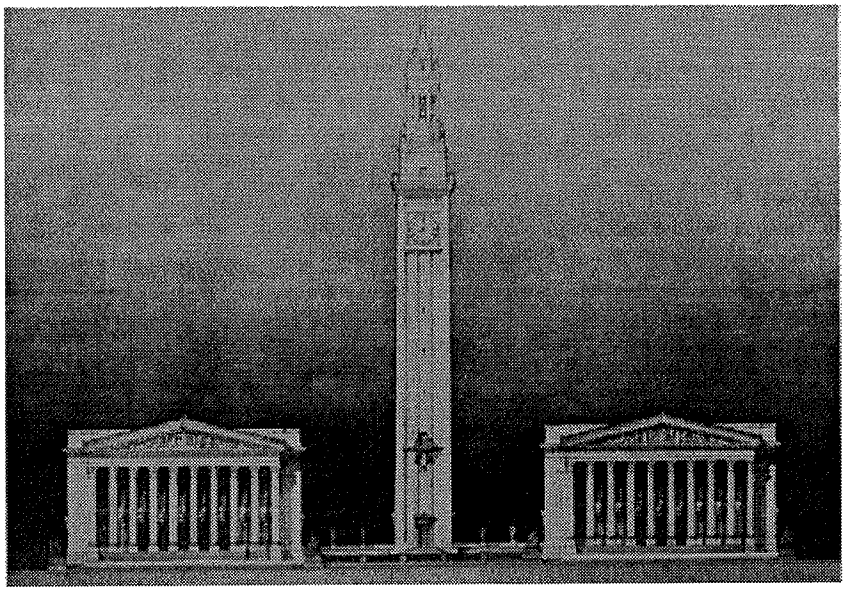


Fig. 9

Fig. 10

Figs. 9, 10. Pell & Corbett. Municipal Group. 1909-1912
Springfield, Massachusetts

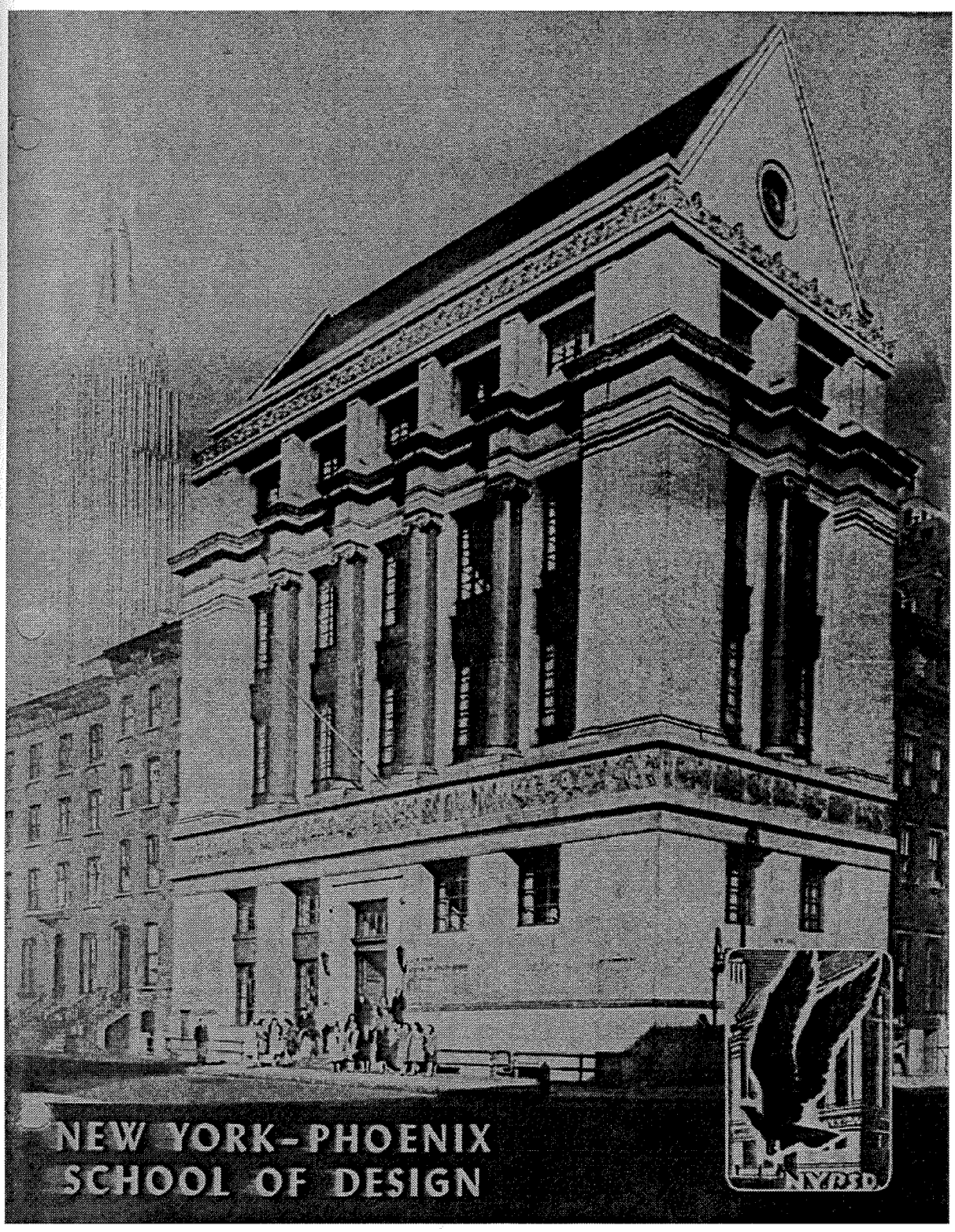


Fig. 11. Pell & Corbett. New York School of Applied Design for Women. 1909
New York, New York

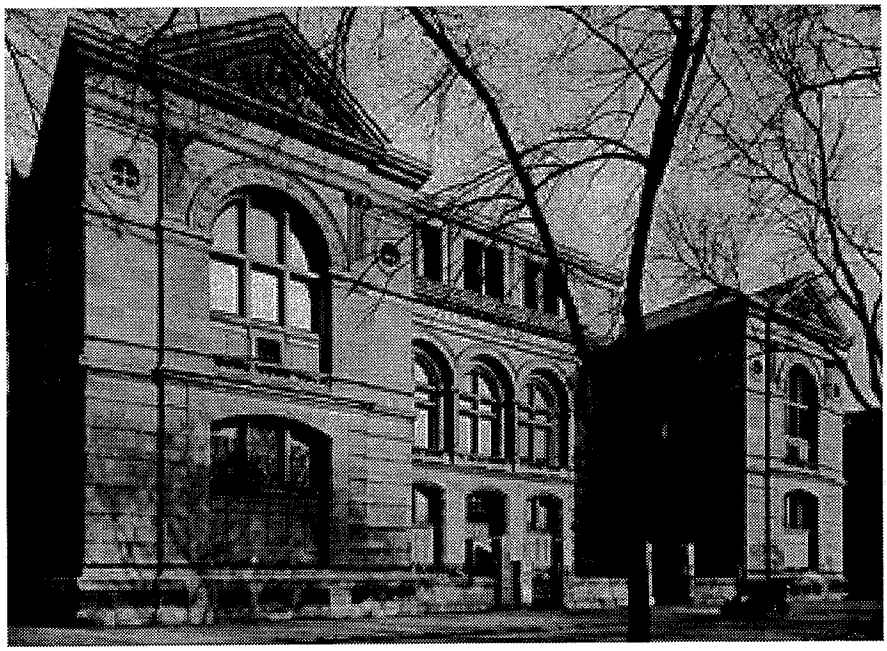


Fig. 12. Richard Morris Hunt. Lenox Library. 1870-1877
New York, New York

Fig. 13. Richard Morris Hunt. Tribune Building. 1873-1875; 1895
New York, New York
view circa 1890

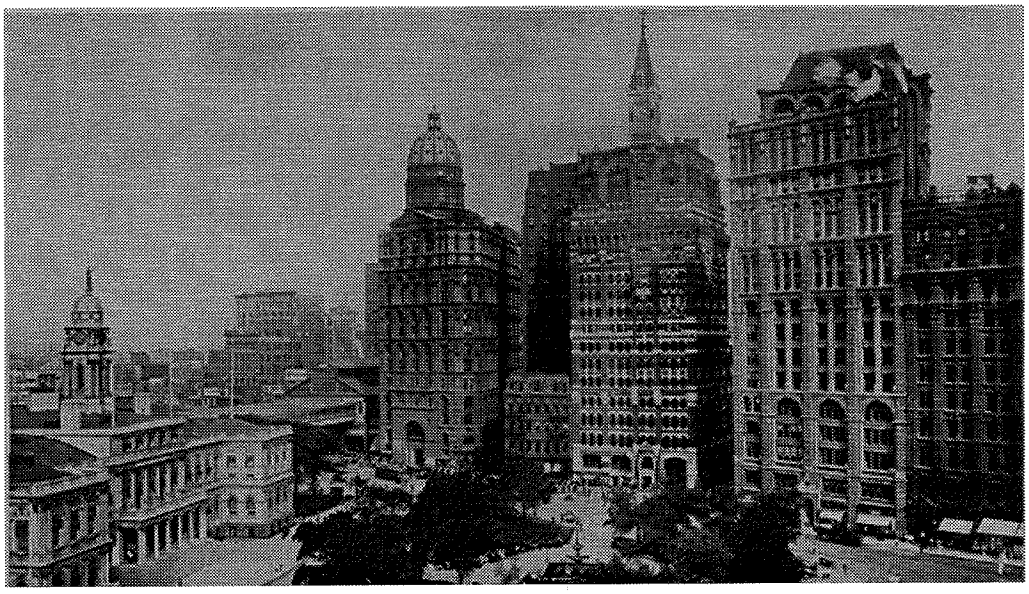


Fig. 14. Richard Morris Hunt. Tribune Building. 1873-1875; 1895
New York, New York
view circa 1900

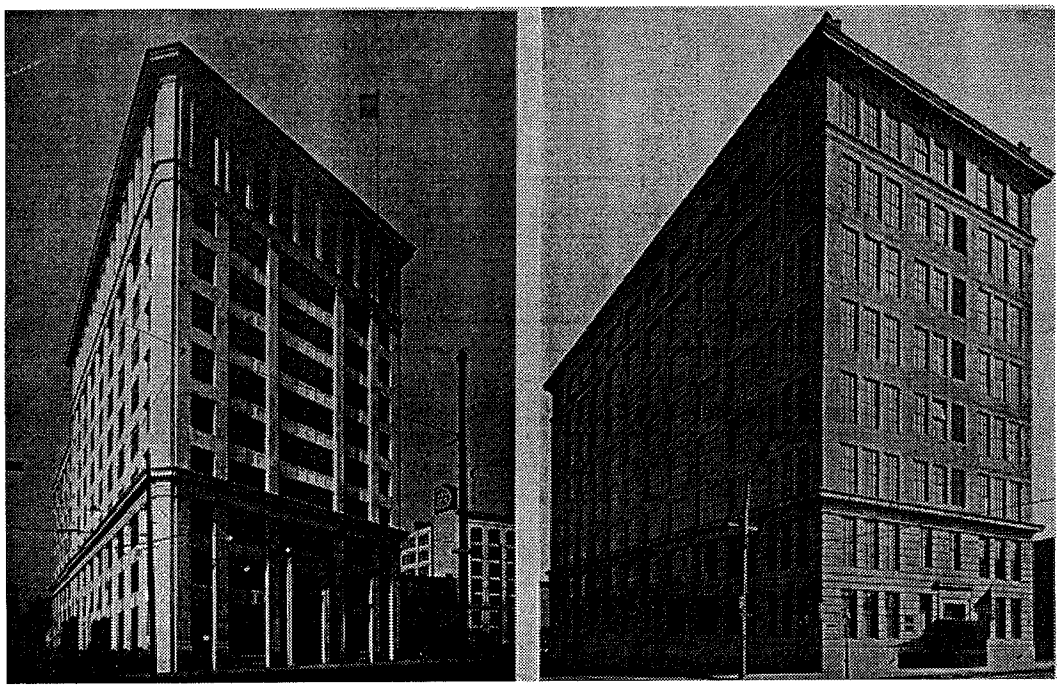


Fig. 15 Fig. 16

Fig. 15. Helmle & Corbett. Sperry Gyroscope Company. between 1913-1918
Brooklyn, New York

Fig. 16. Helmle & Corbett. Thomas Shoe Company. between 1913-1918
Brooklyn, New York

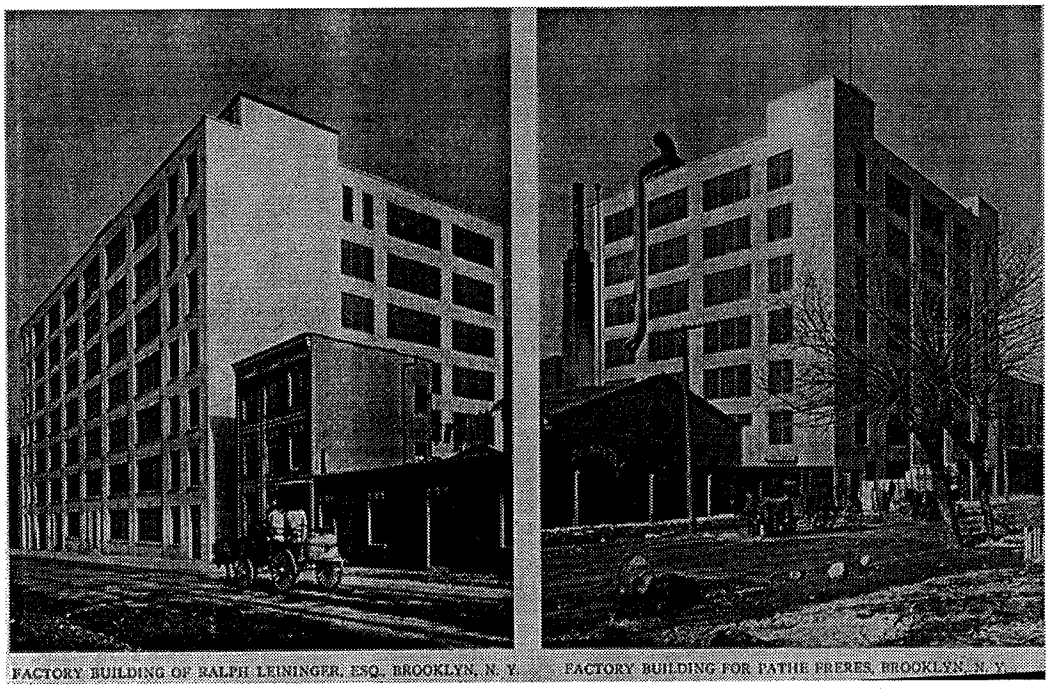


Fig. 17 Fig. 18

Fig. 17 Helmle & Corbett. Ralph Leininger, Esquire. between 1913-1918
Brooklyn, New York

Fig. 18. Helmle & Corbett. Pathe Freres. between 1913-1918
Brooklyn, New York

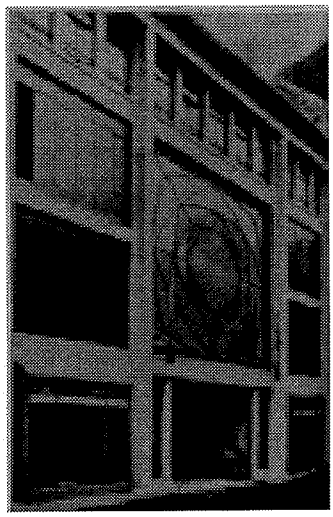


Fig. 19

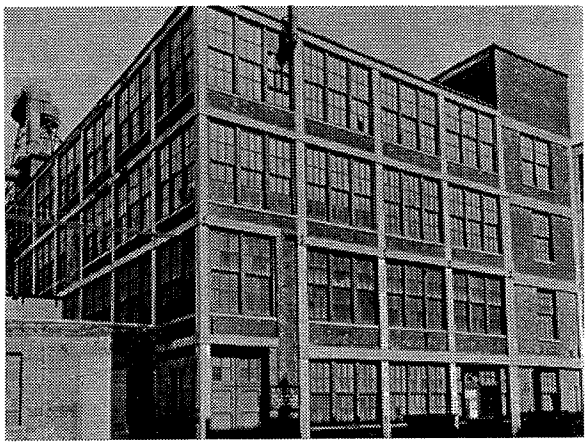


Fig. 20

Fig. 19. Auguste Perret. Garage. 1906
Paris, France

Fig. 20. Albert Kahn. Packard Plant Number 10. 1906
Detroit, Michigan

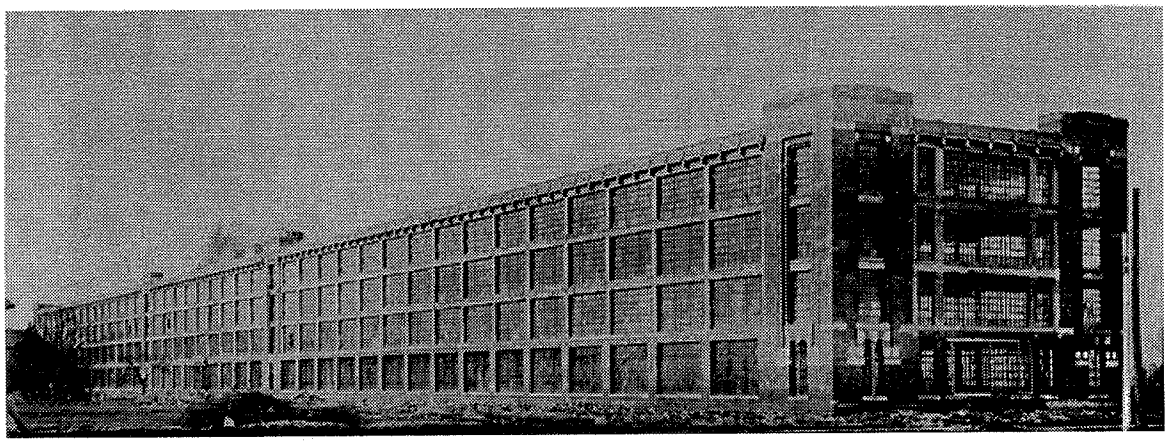


Fig. 21. Albert Kahn. Ford Motor Car Company, Highland Park Plant. 1910
Highland Park, Michigan

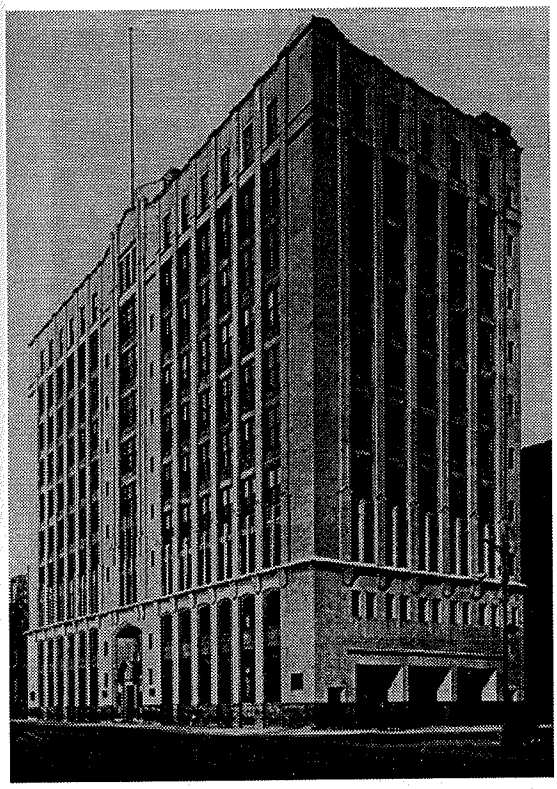


Fig. 22. Helmle & Corbett. Fletcher Building
1920. New York, New York

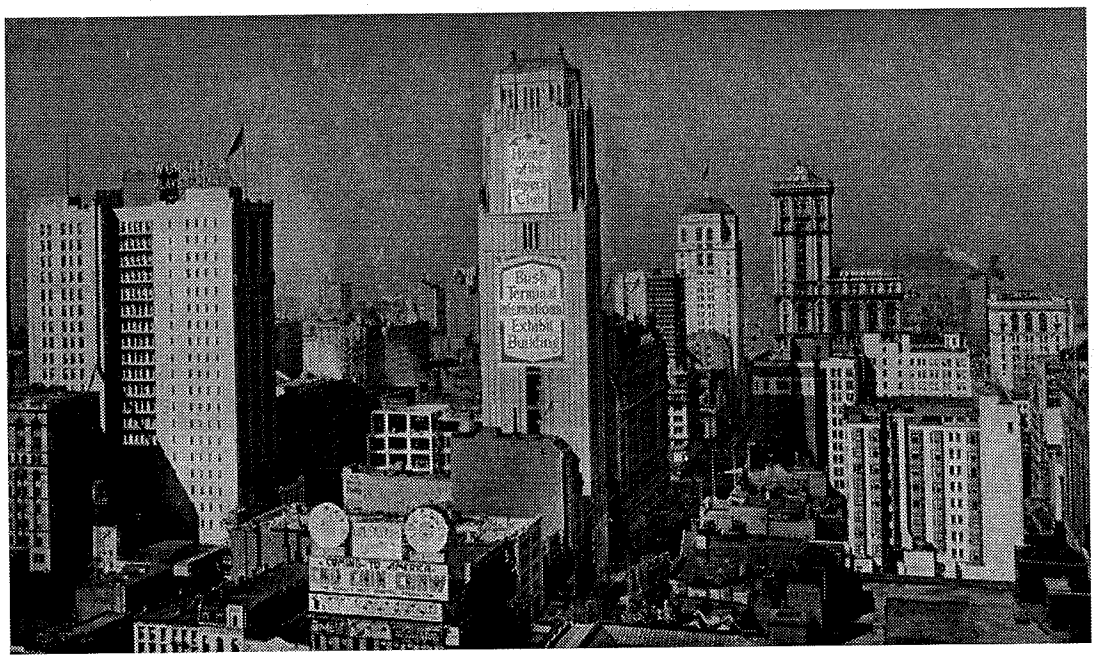


Fig. 23. Helmle & Corbett. Bush Terminal Building. 1916-1917
New York, New York
view towards Times Square

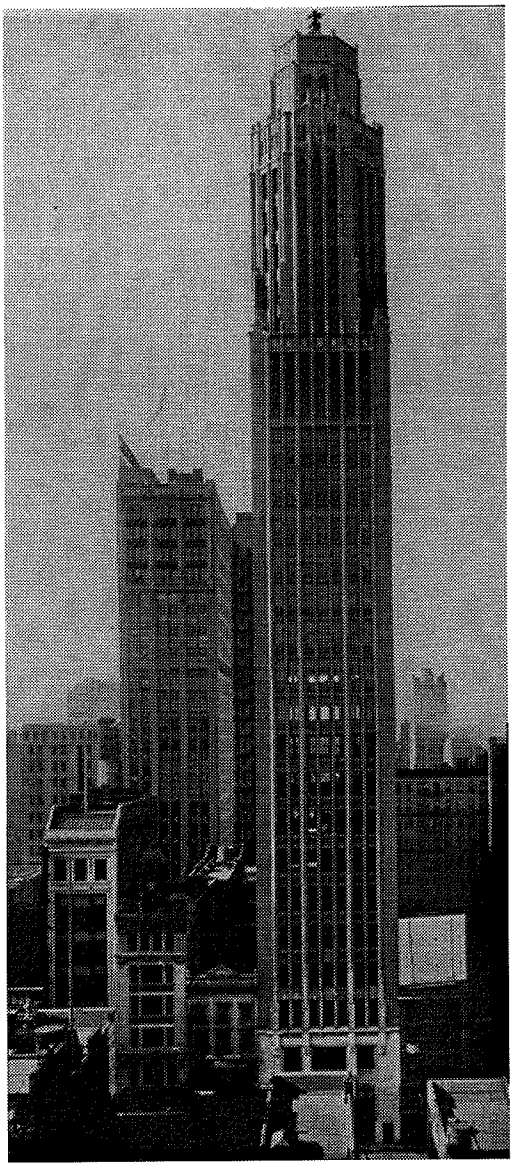


Fig. 24

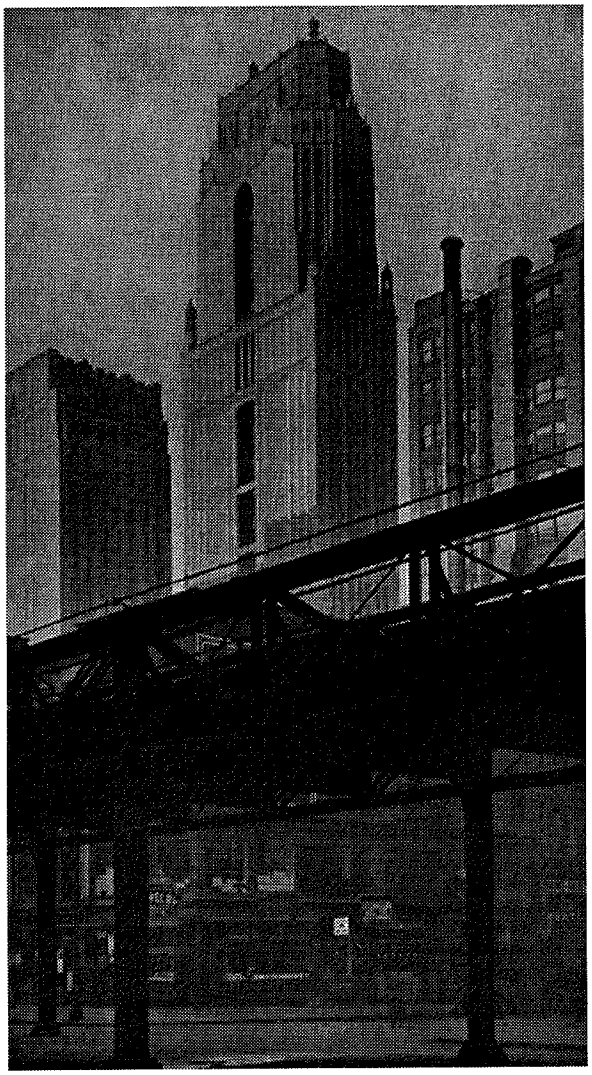


Fig. 25

Fig. 24. Helmle & Corbett. Bush Terminal Building. 1916-1917.
New York, New York

Fig. 25. Helmle & Corbett. Bush Terminal Building. 1916-1917.
New York, New York
view from Sixth Avenue

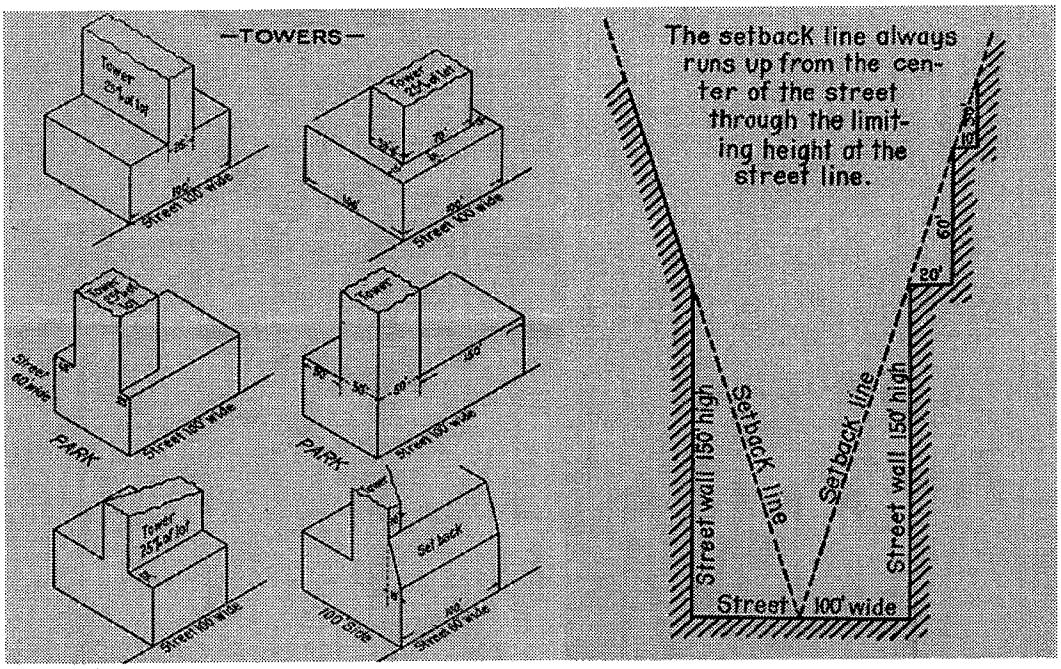


Fig. 26. Setback principles as drawn by George B. Ford.

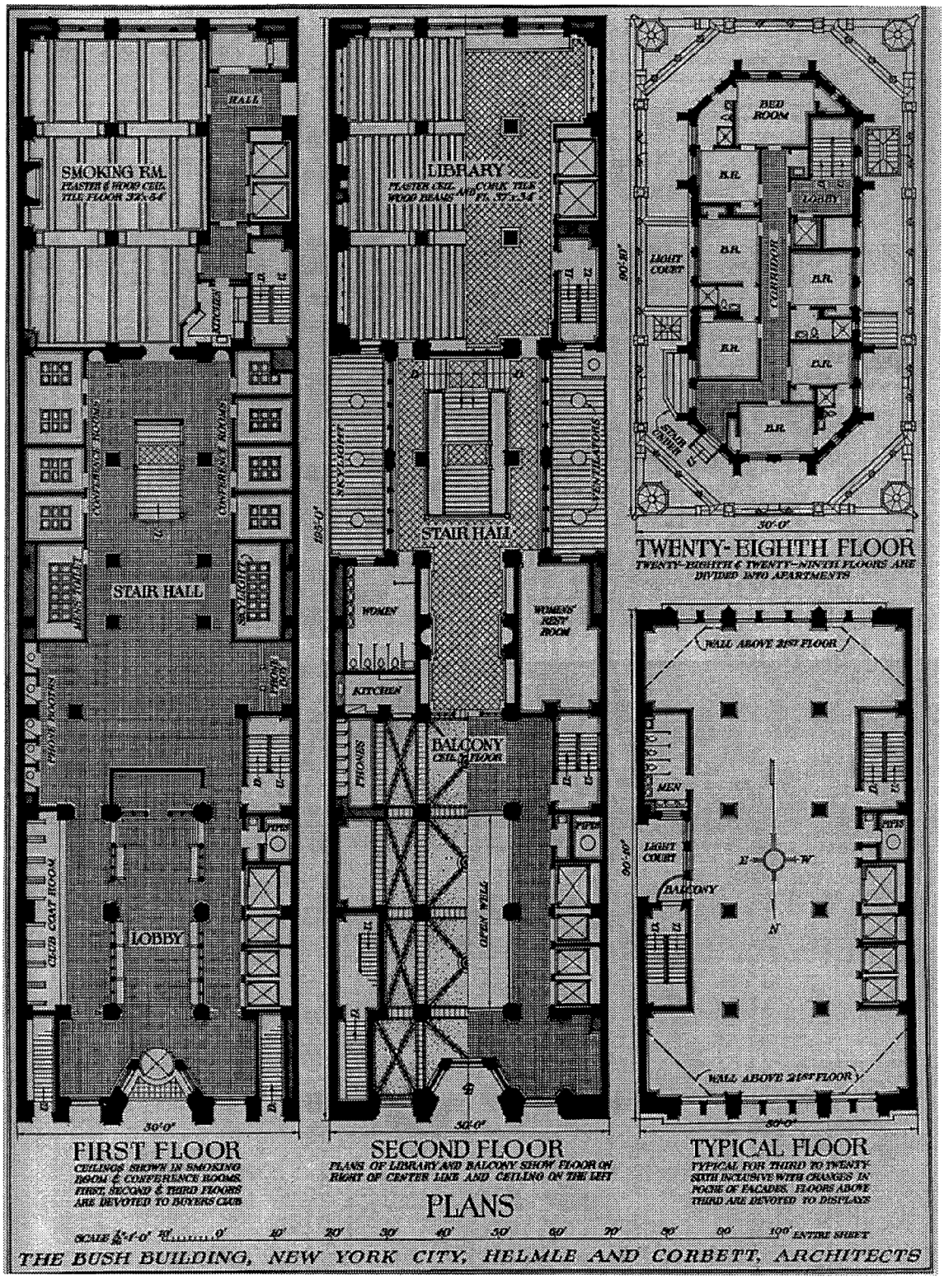


Fig. 27. Helmle & Corbett. Bush Terminal Building. 1916-1917.
New York, New York

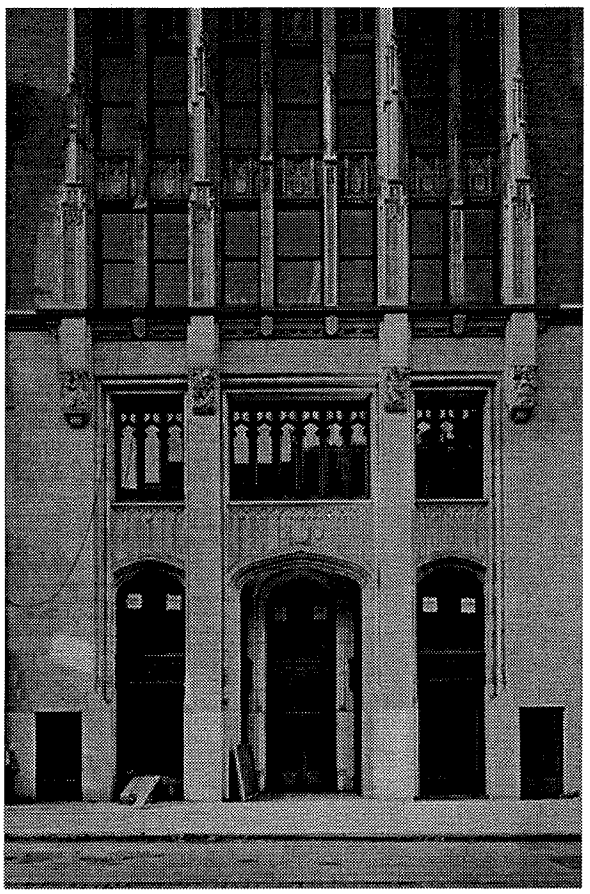


Fig. 28

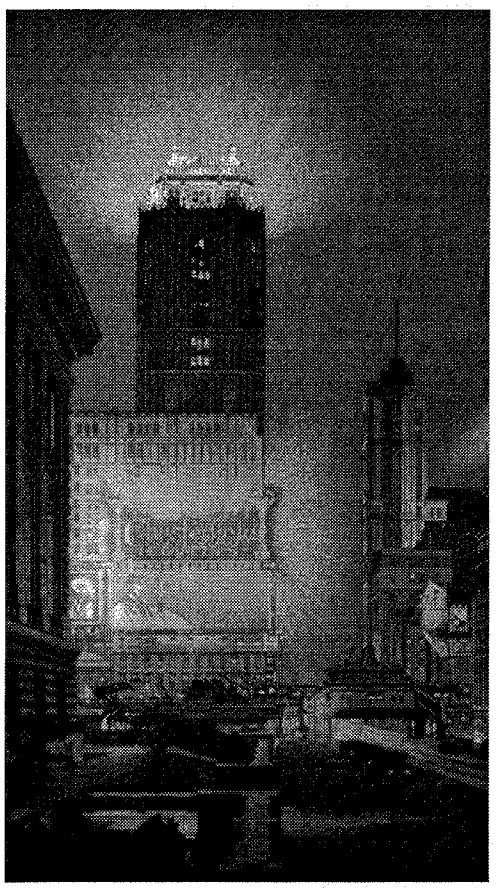


Fig. 29

Fig.28. Helmle & Corbett. Bush Terminal Building. 1916-1917. New York, New York

Fig. 29. Helmle & Corbett. Bush Terminal Building. 1916-1917. New York, New York

Fig. 30. *42nd Street.* 1933
Jack Okey, Art director; Lloyd Bacon, director.

Fig. 31.

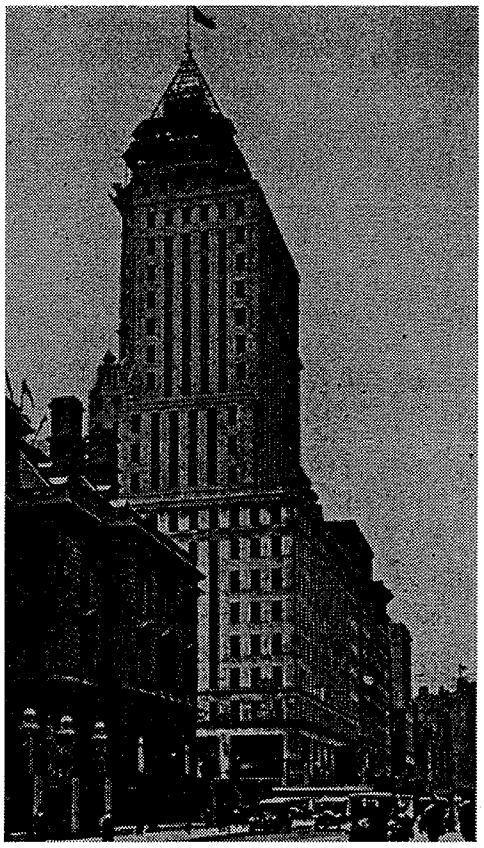


Fig. 32.

Fig. 31. Maynicke & Franke. Wurlitzer Building. 1919
New York, New York
the edge of the Remington Building is visible across the street

Fig. 32. Warren & Wetmore. Hecksher Building. 1922
New York, New York

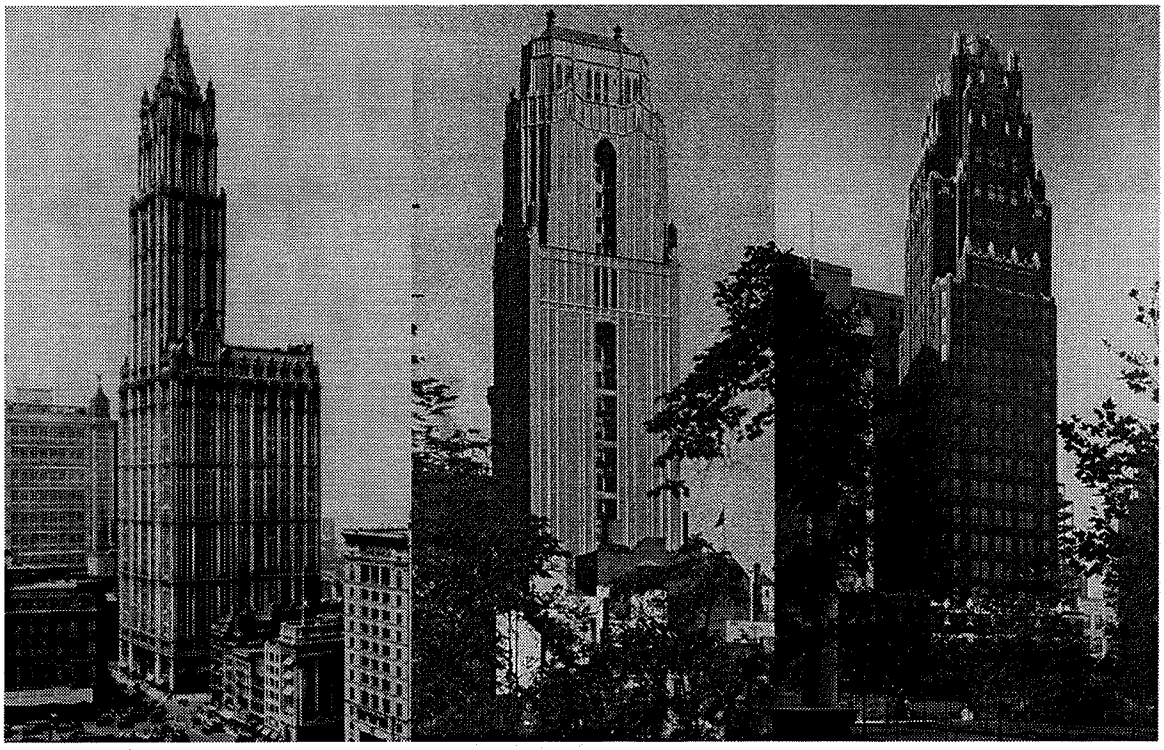


Fig. 33. Skyscraper evolution

Cass Gilbert. Woolworth Building. 1910-1913.
Helmle & Corbett. Bush Terminal Building. 1916-1917
Raymond Hood. American Radiator Company Building. 1924

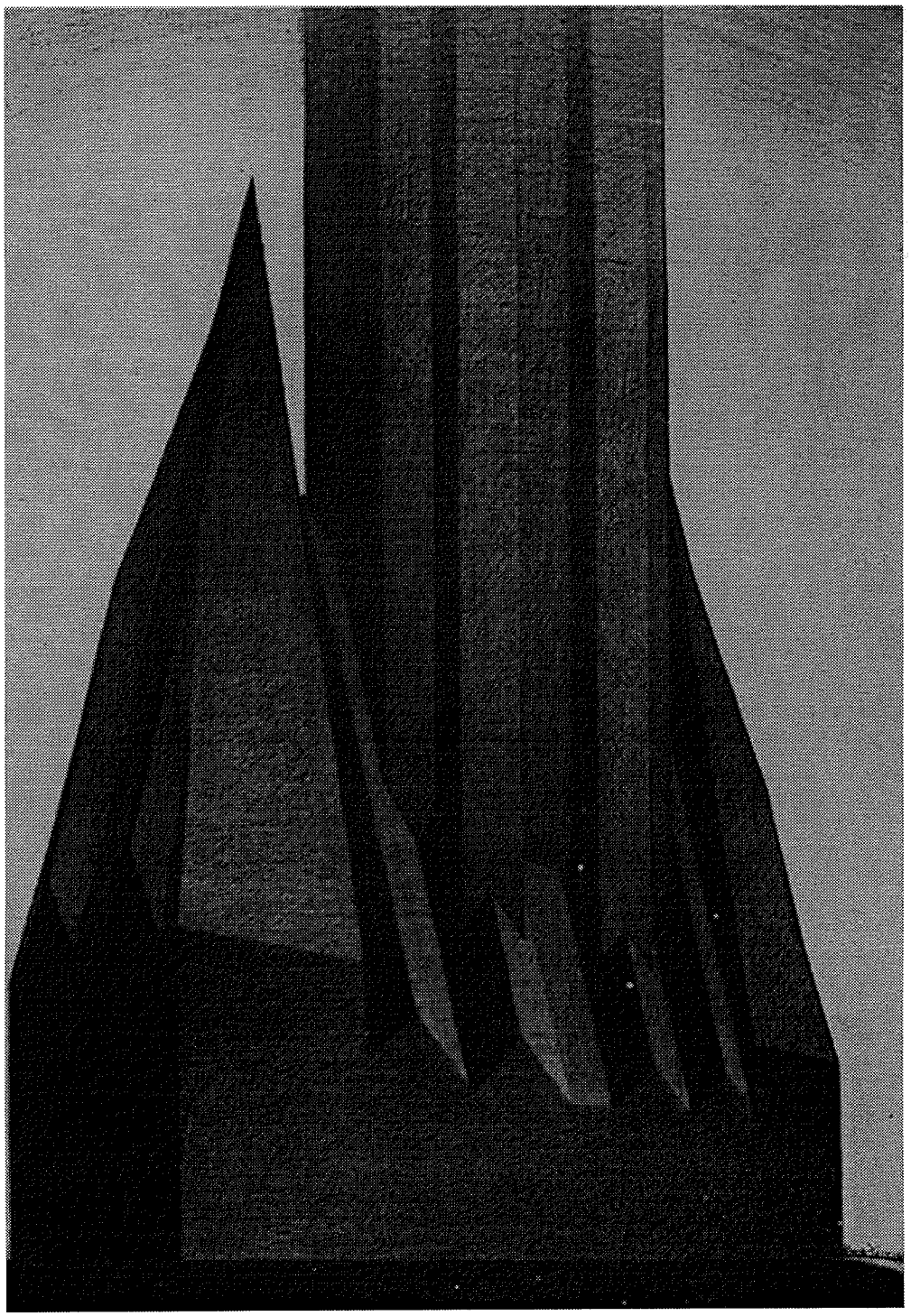


Fig. 34. Harvey Wiley Corbett and Hugh Ferriss. First Stage. 1922

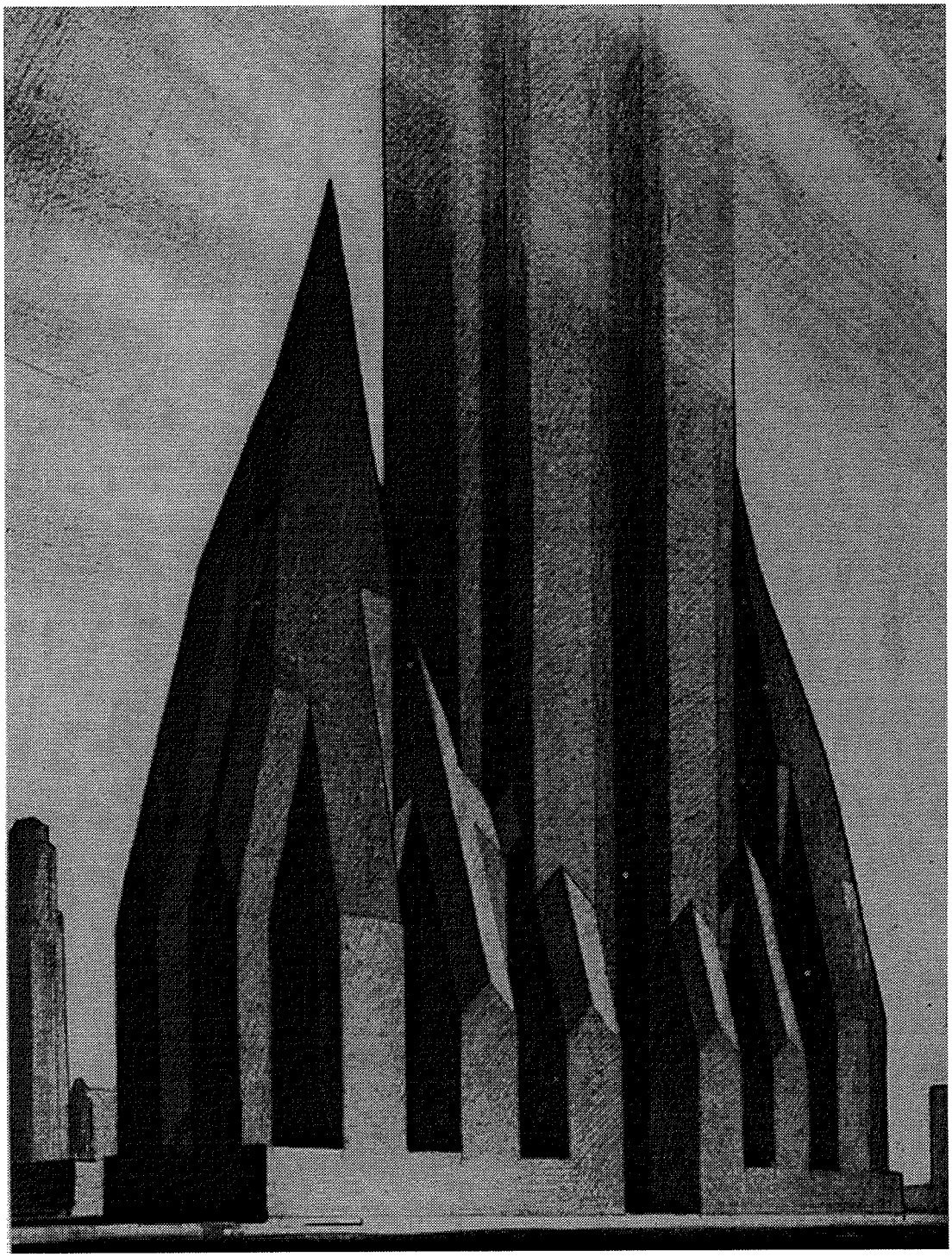


Fig. 35. Harvey Wiley Corbett and Hugh Ferriss. Second Stage. 1922

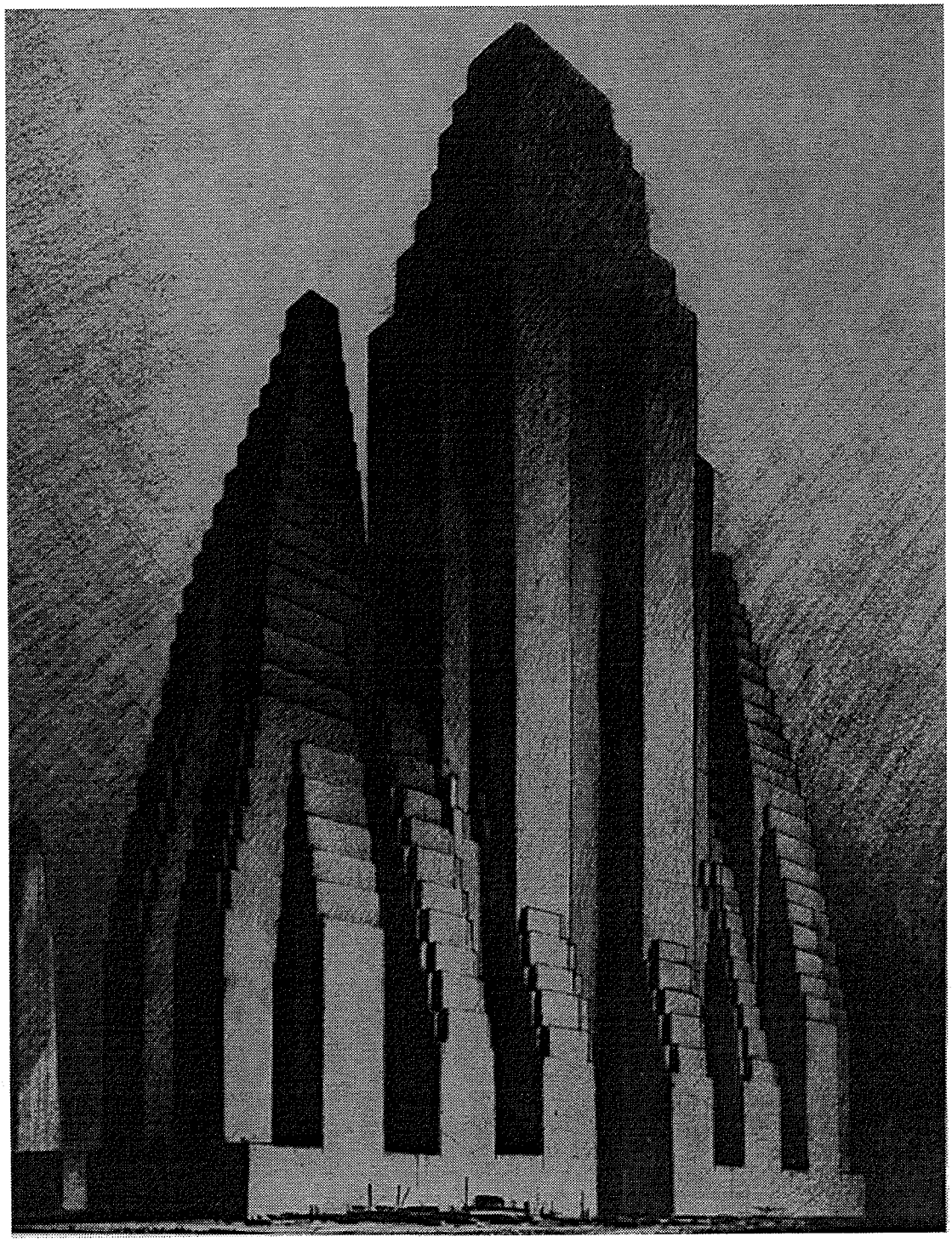


Fig. 36. Harvey Wiley Corbett and Hugh Ferriss. Third Stage. 1922

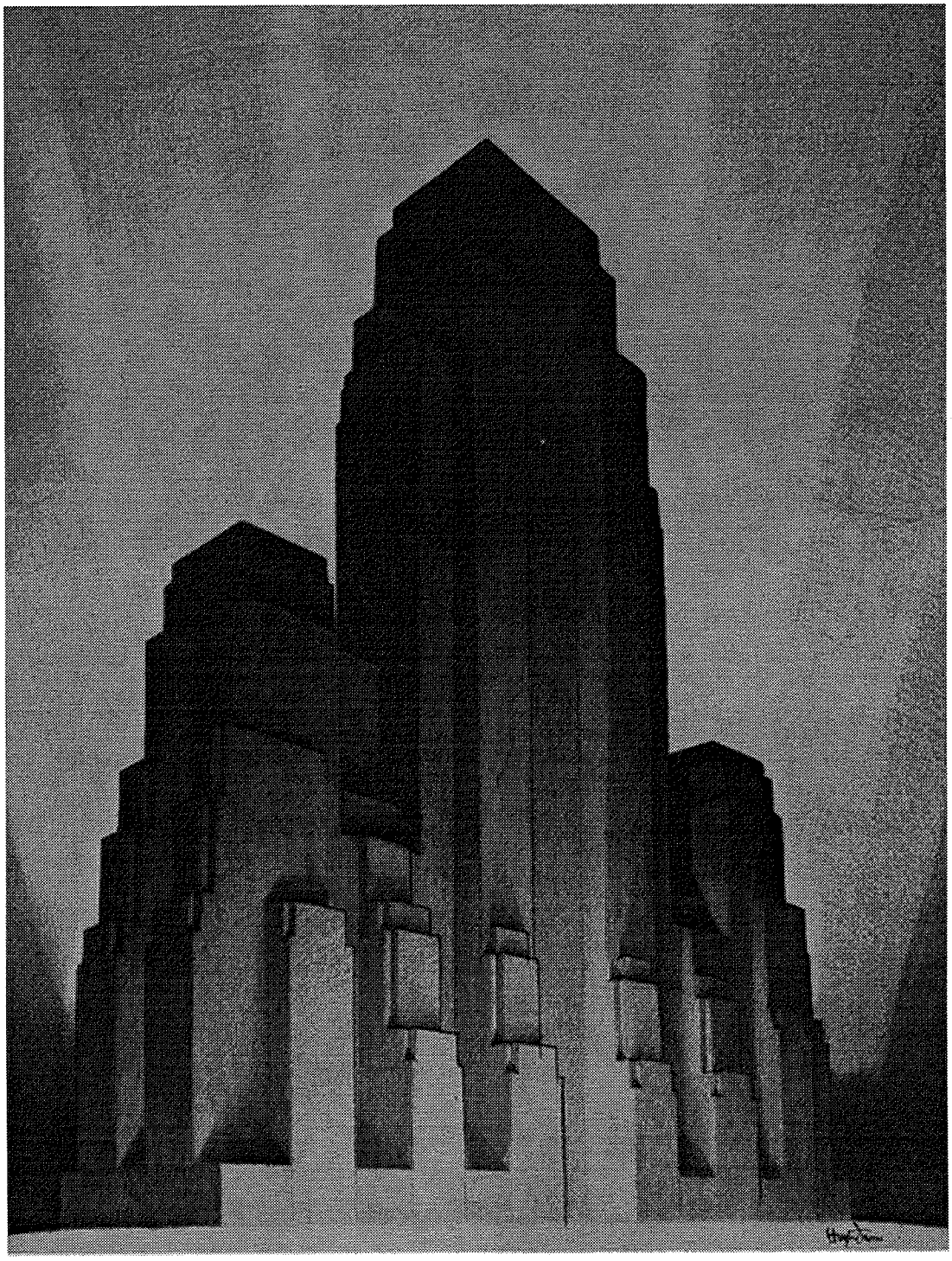


Fig. 37. Harvey Wiley Corbett and Hugh Ferriss. Fourth Stage. 1922

Fig. 38. Hugh Ferriss
Bush House rendering
1920

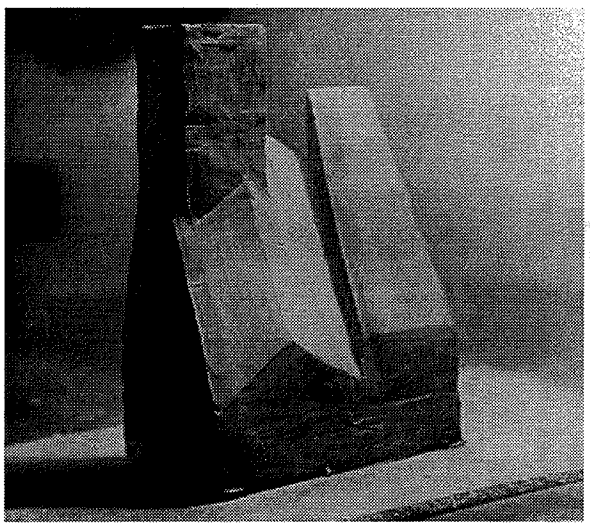


Fig. 39. Daily News Building model

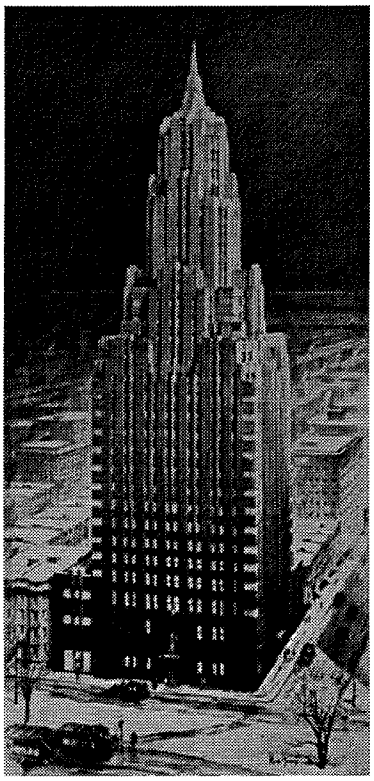


Fig. 40.
Corbett, Harrison & MacMurray
Roerich Museum and Master Apartments
1929

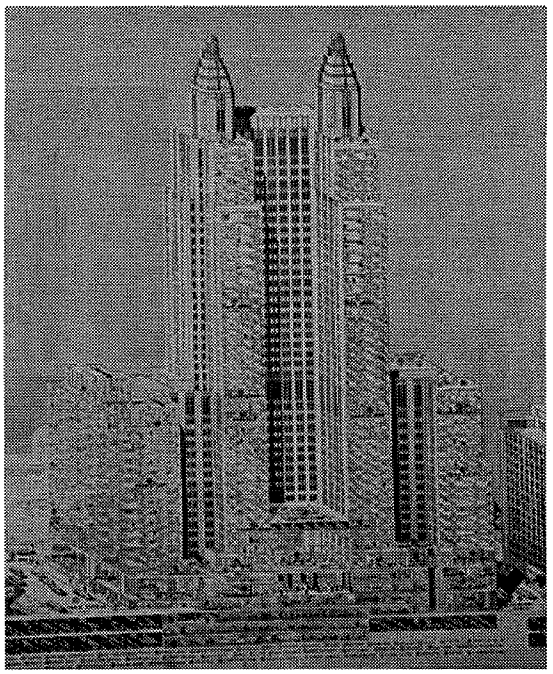


Fig. 41.
Schultze & Weaver
Waldorf-Astoria
1931

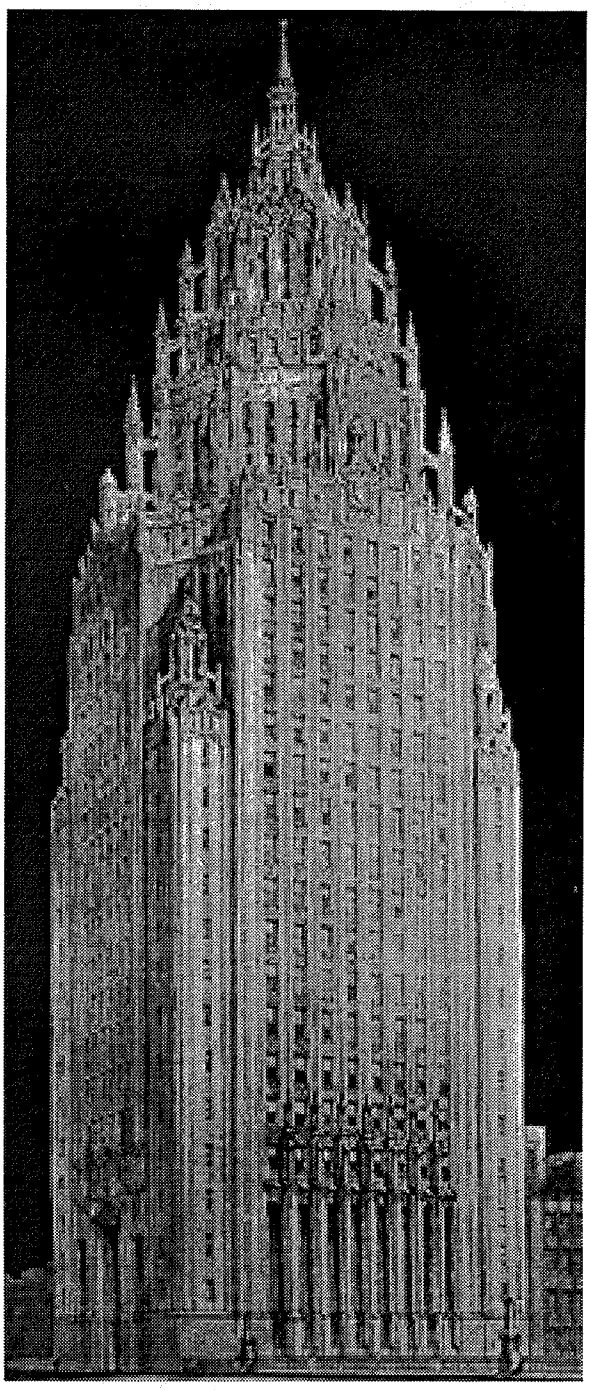


Fig. 42.

Fig. 43.

Fig. 42. Eliel Saarinen. Chicago Tribune Tower competition. 1922

Fig. 43. Helmle & Corbett. Chicago Tribune Tower competition. 1922

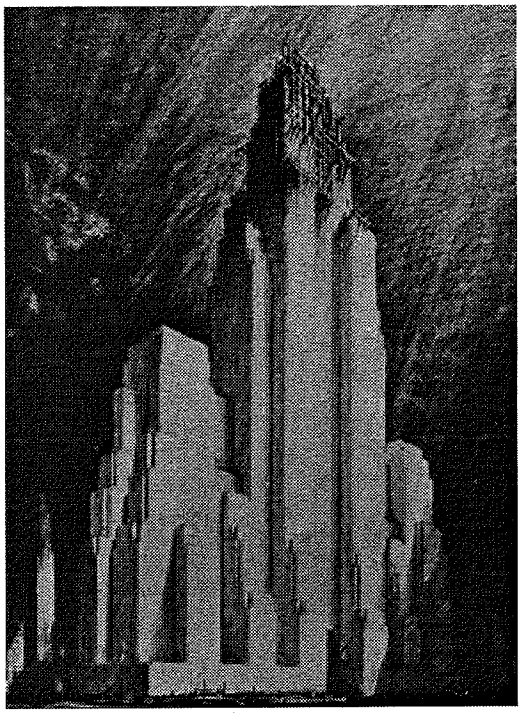


Fig. 44. Original Fourth Stage

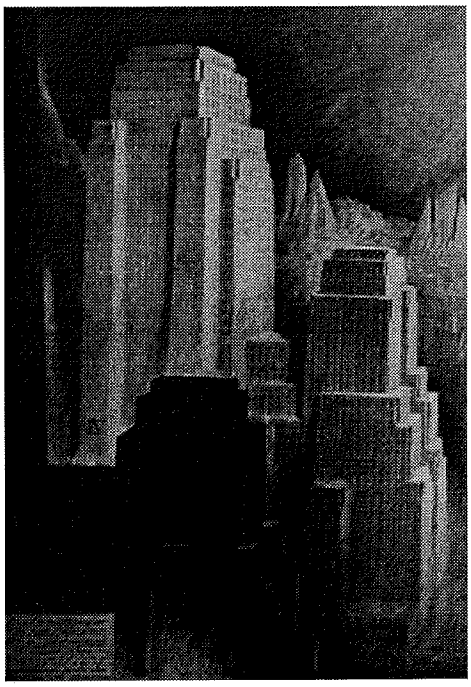


Fig. 45. Hugh Ferriss. The Four Stages

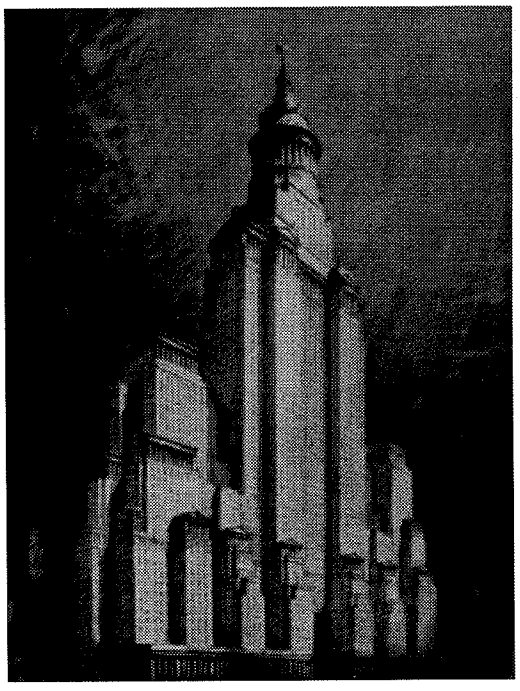


Fig. 46. Harvey Wiley Corbett. Fifth Stage

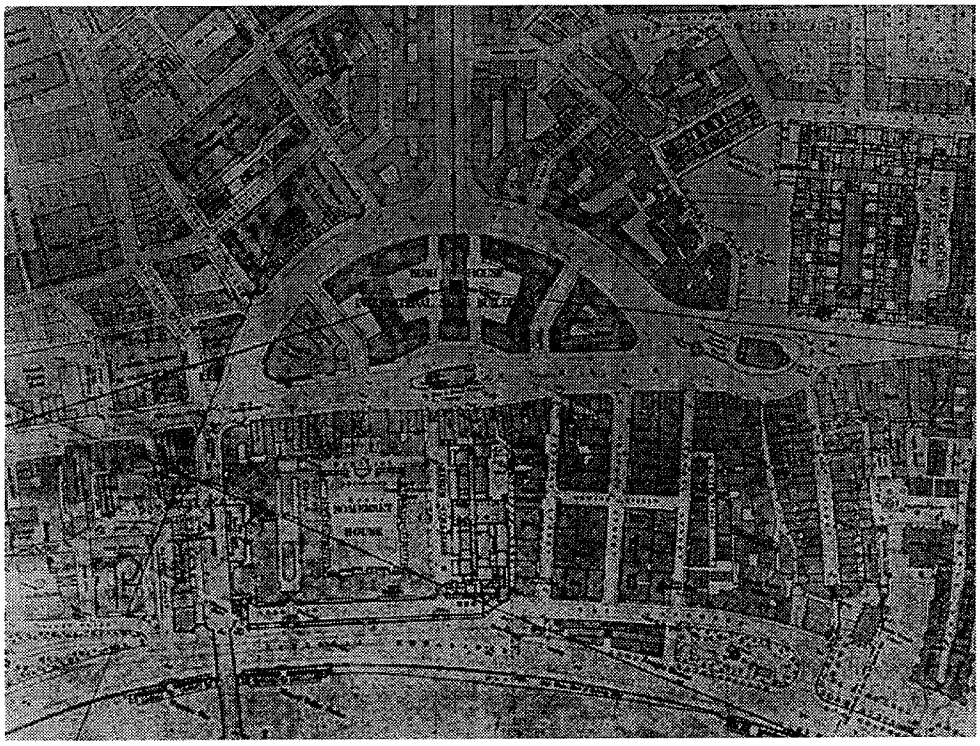


Fig. 47. Bush House site in London, England

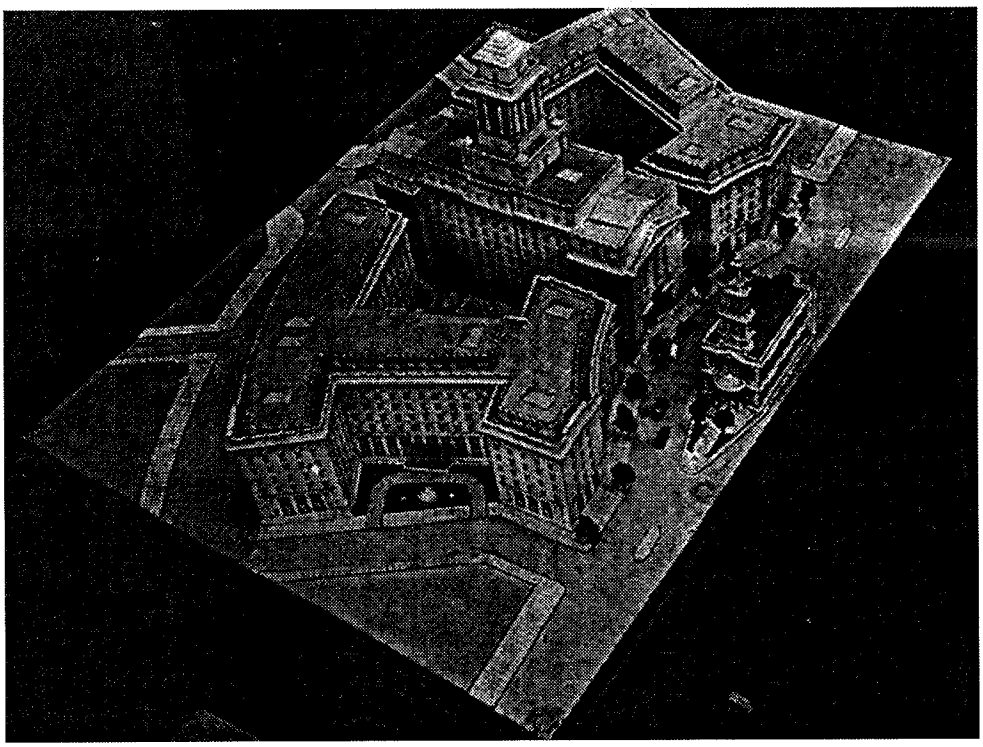


Fig. 48. Helmle & Corbett. Model of Bush House, London.

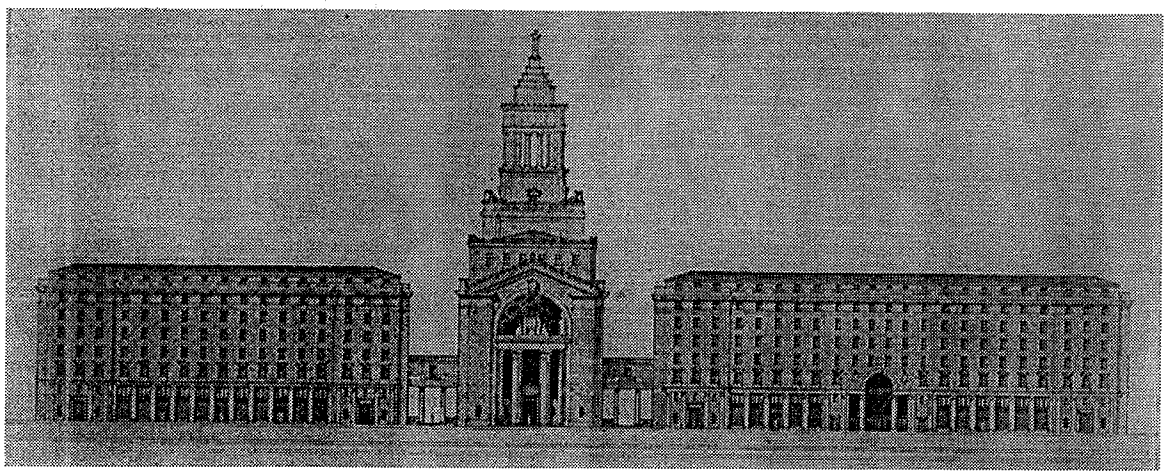


Fig. 49. Helmle & Corbett. Bush House, London. 1920-1927
Kingsway elevation

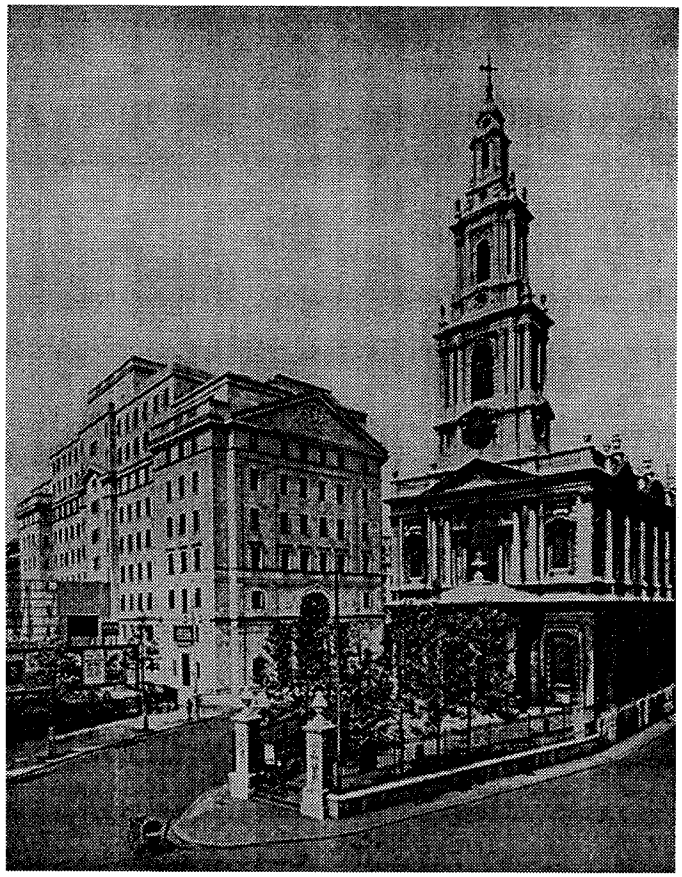


Fig. 50. Helmle & Corbett. Bush House, London. 1920-1927
Strand elevation, with James Gibb's St. Mary-le-Strand (1714-1717)

Fig. 51

Fig. 52

Fig. 51. Helmle & Corbett. Arch of Democracy. 1919

Fig. 52. Helmle & Corbett. Hartford County Building competition entry Circa 1924

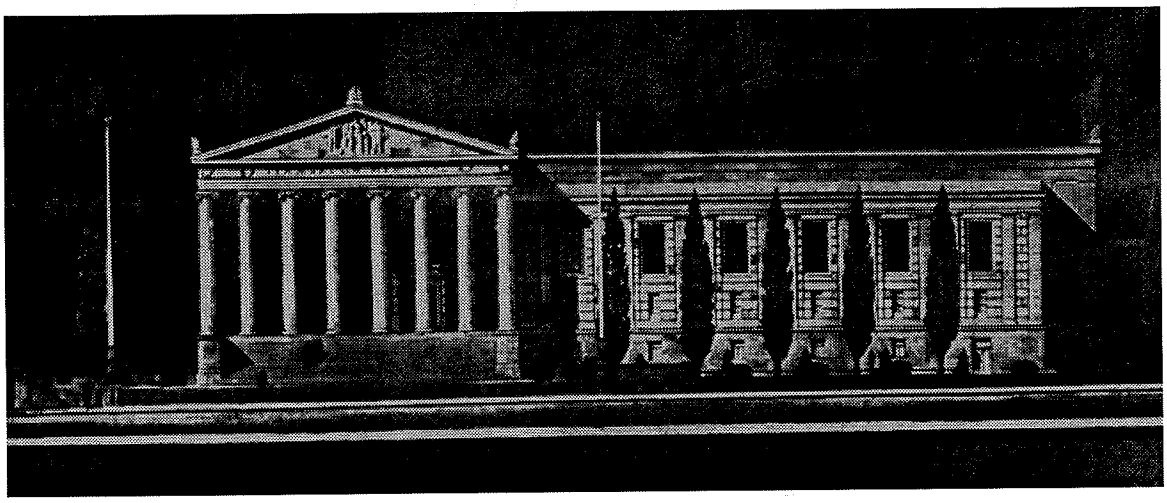


Fig. 53. Helmle & Corbett. Stambaugh Memorial Auditorium. Circa 1925

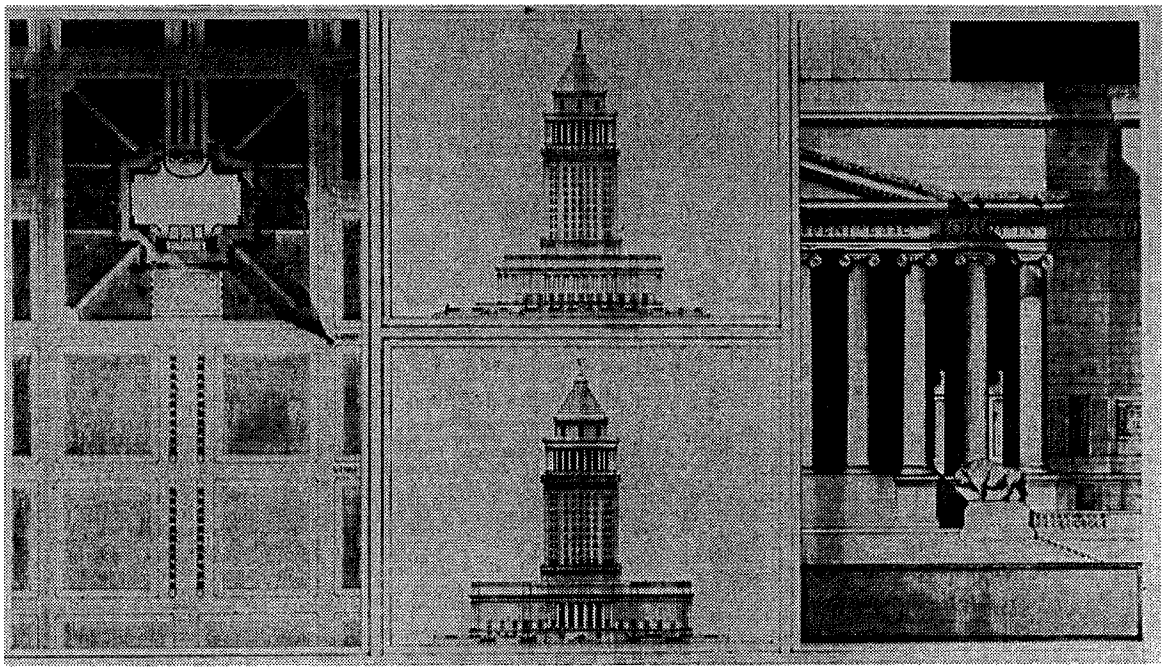


Fig. 54 Harvey Wiley Corbett. Undated tower proposal.

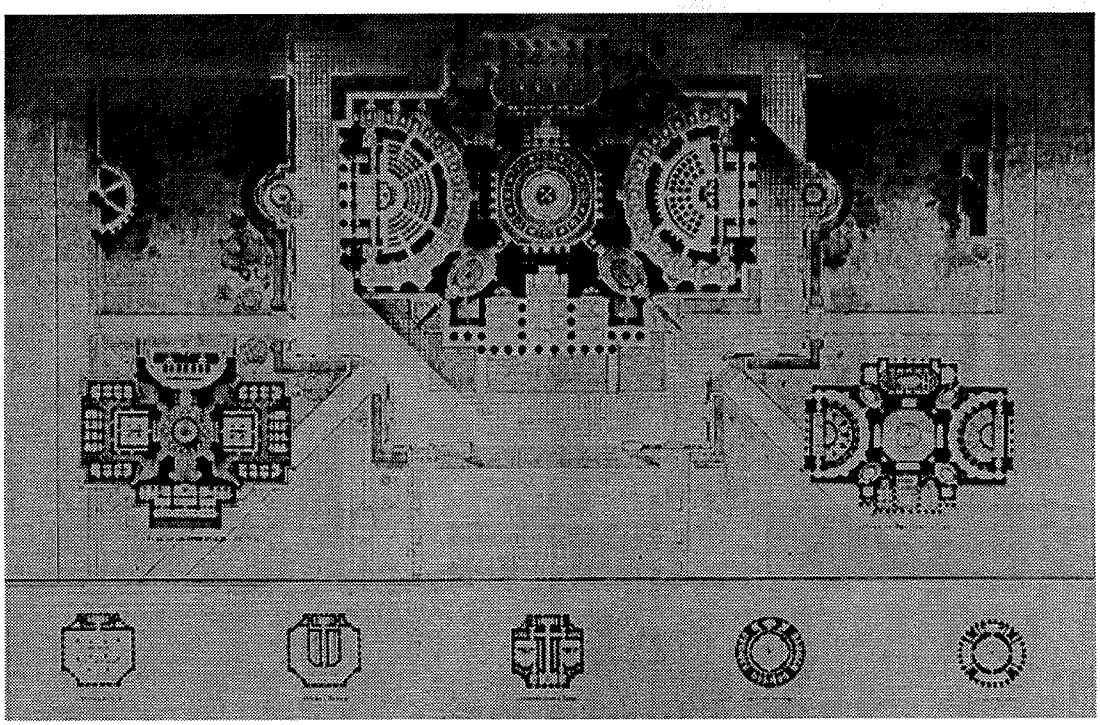


Fig. 55. Harvey Wiley Corbett. Undated tower proposal.

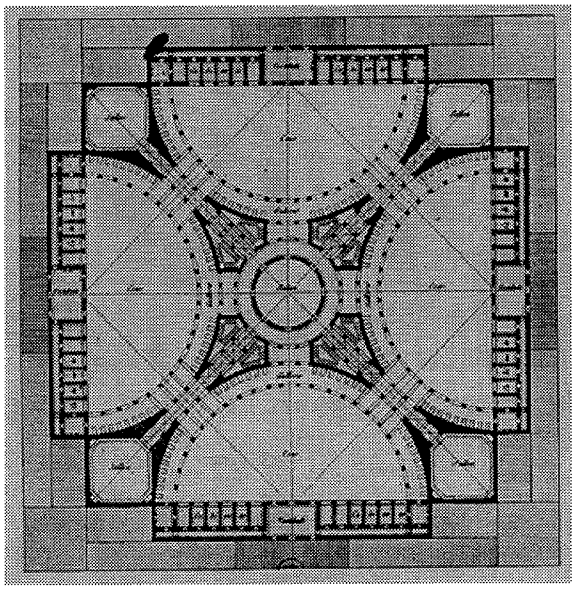


Fig. 56

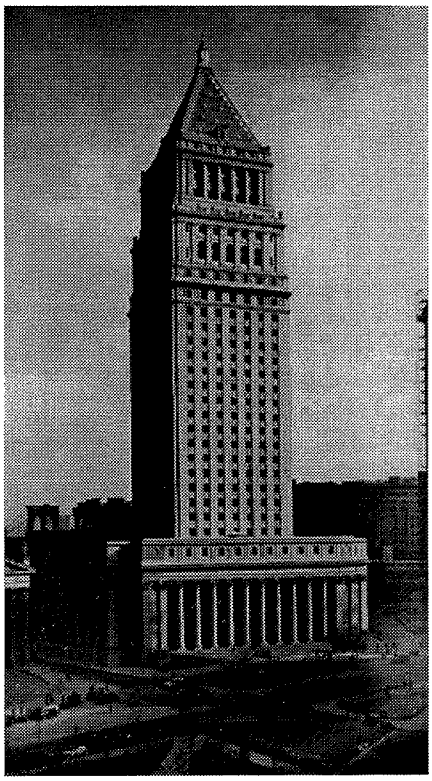


Fig. 57.

Fig. 56. Claude-Nicolas Ledoux. Propylées, Guinguette No. 2

Fig. 57 Cass Gilbert. United States Courthouse. 1936
New York, New York

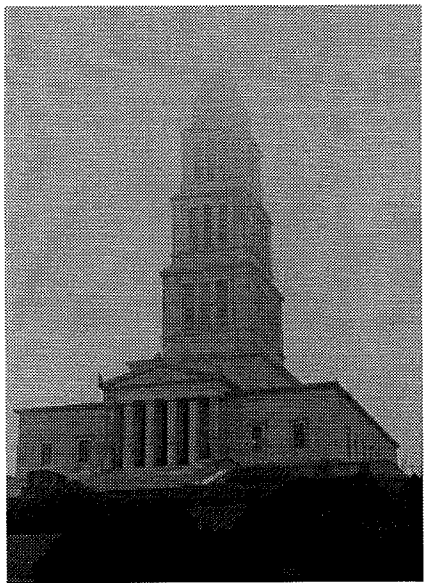


Fig. 58

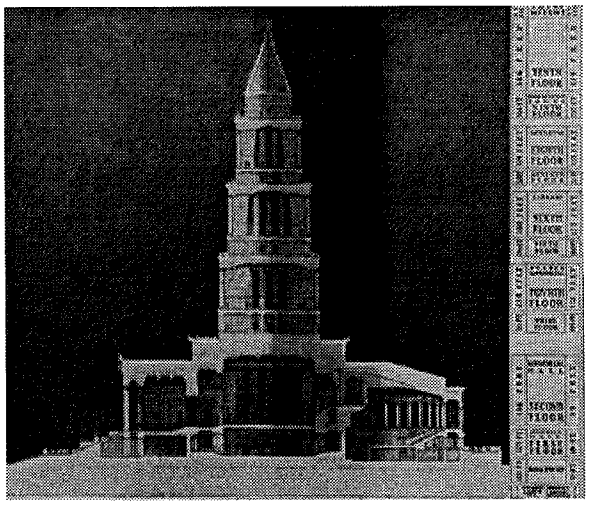


Fig. 59.

Figs. 58, 59. Helmle & Corbett. George Washington Masonic National Memorial.
1922-1932. Alexandria, Virginia

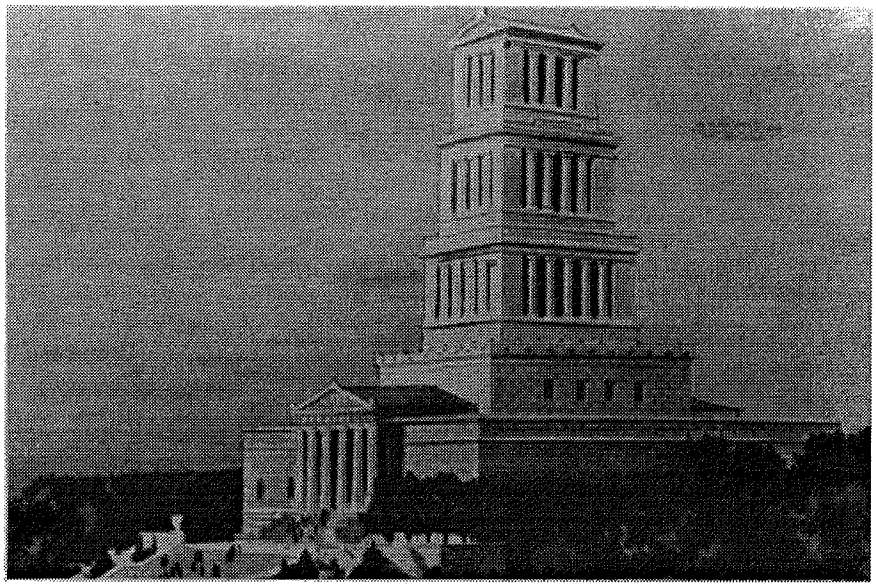


Fig. 60. Helmle & Corbett. George Washington Masonic National Memorial original proposal

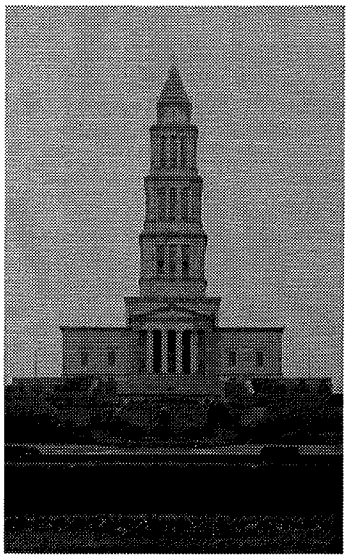


Fig. 61.

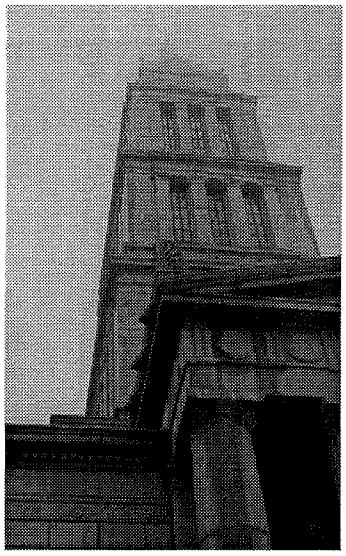


Fig. 62.

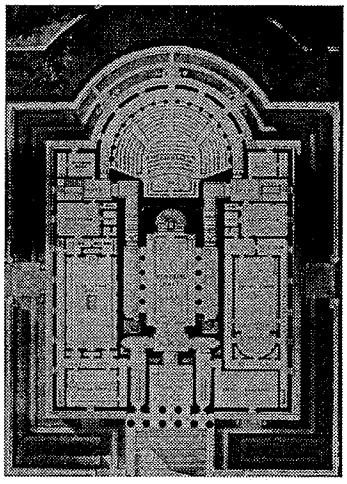


Fig. 63.

Fig. 61, 62, 63. Helmle & Corbett. George Washington Masonic National Memorial 1922-1932. Alexandria, Virginia

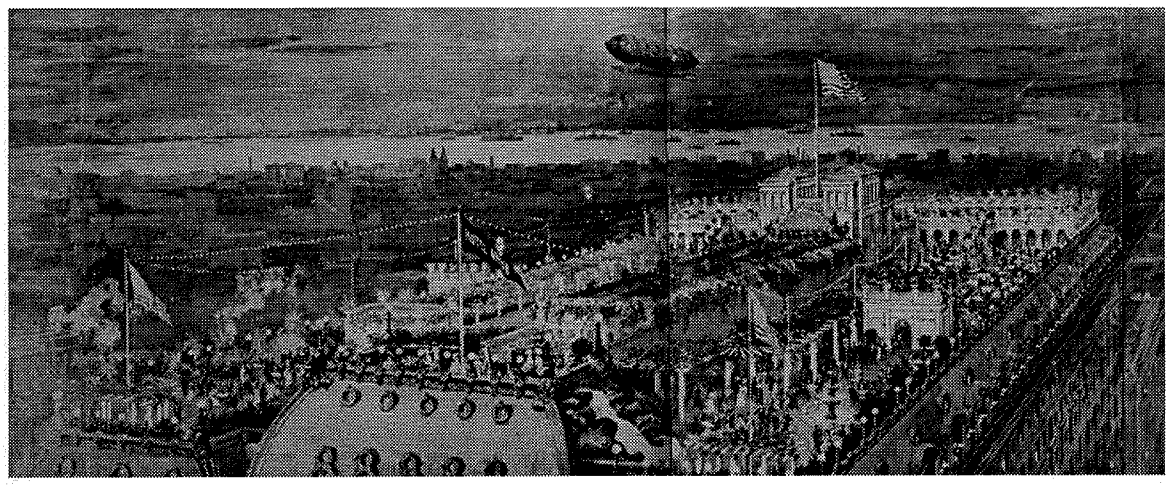


Fig. 64. Clinton & Russell. Hotel Astor roof gardens. 1904-1909
New York, New York

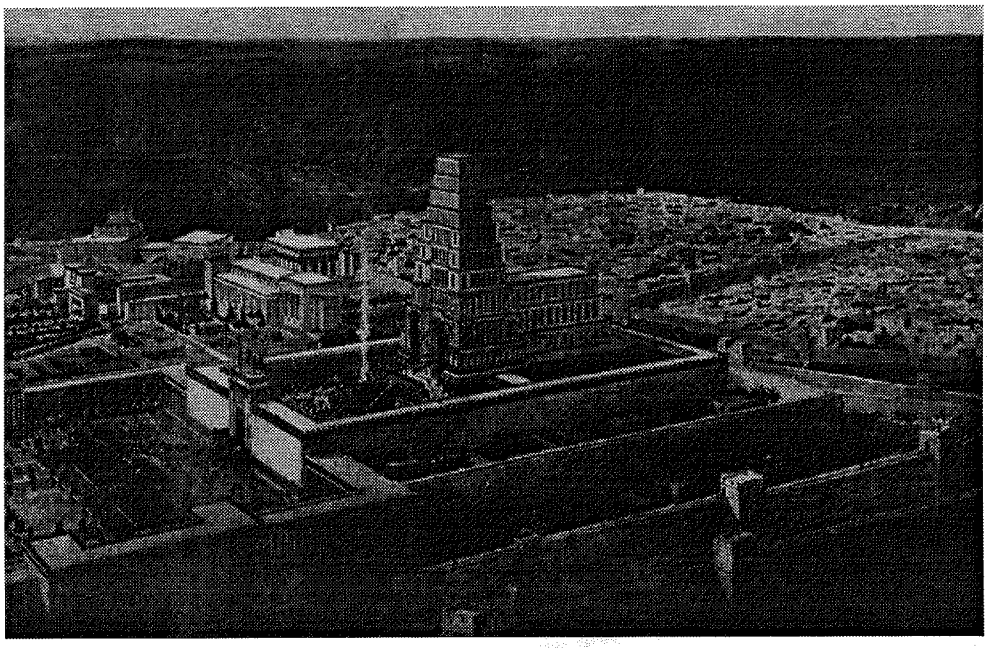


Fig. 65. Harvey Wiley Corbett. Restoration of King Solomon's Temple. 1925

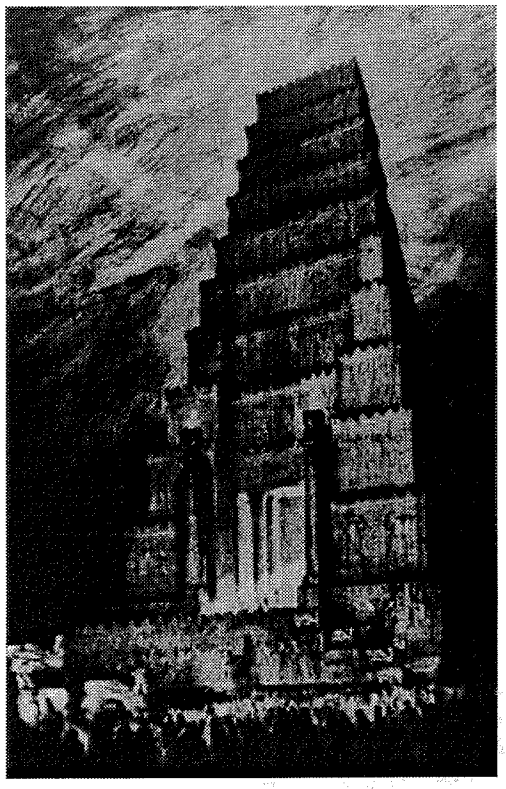


Fig. 66

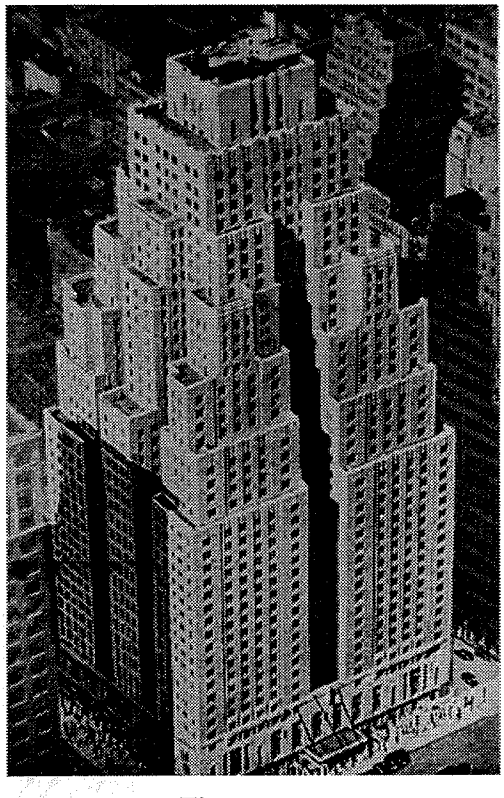


Fig. 67

Fig. 66. Hugh Ferriss. The Great Porch, King Solomon's Temple
Fig. 67. Sugarman & Berger. New Yorker Hotel. 1930

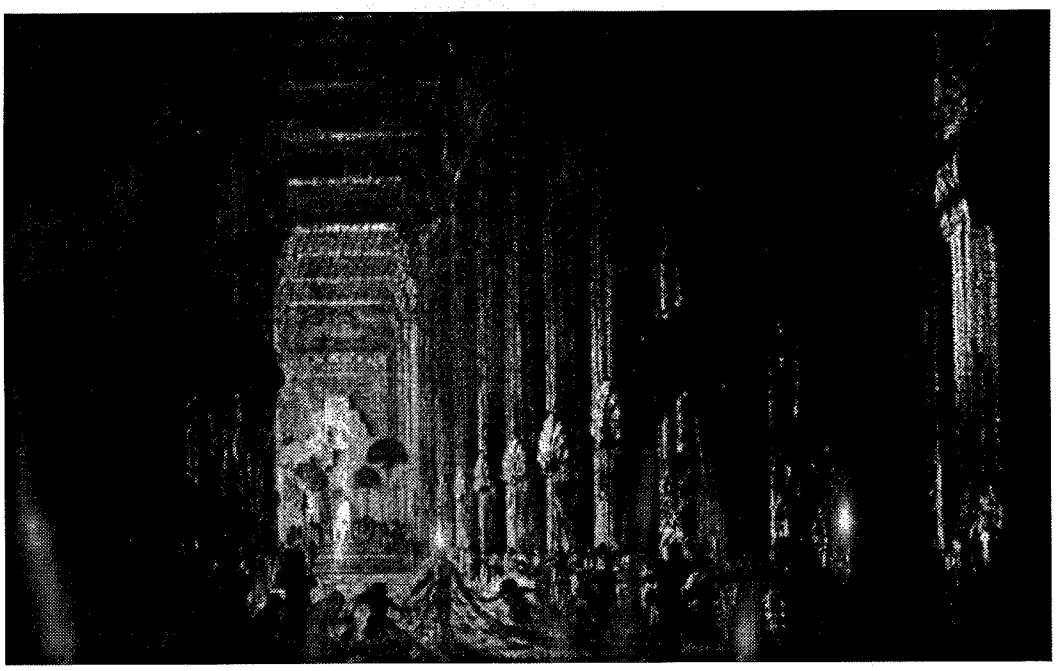


Fig. 68. Hugh Ferriss. House of the Forest of Lebanon, King Solomon's Temple

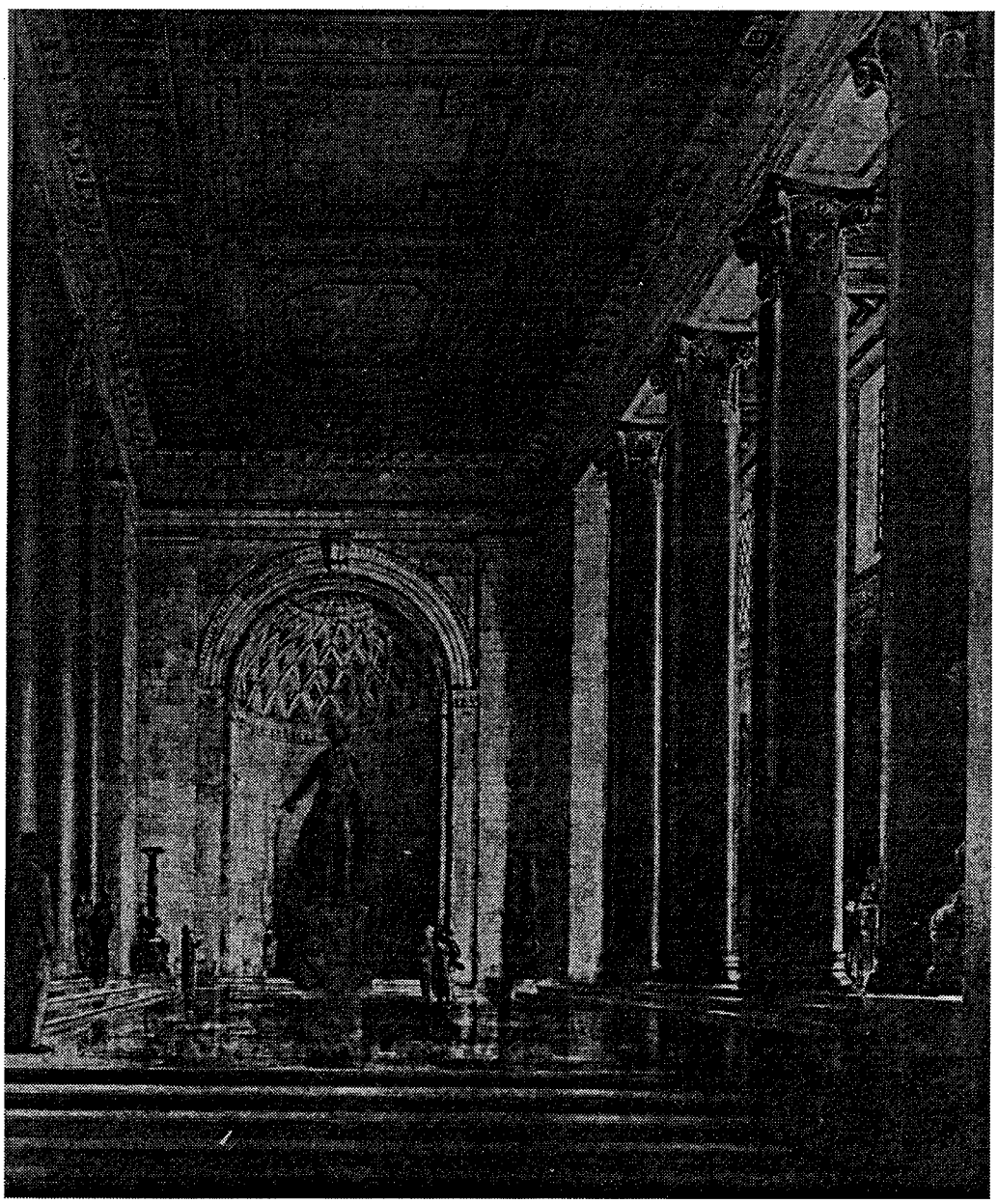


Fig. 69. Helmle & Corbett. George Washington Masonic National Memorial Memorial Hall

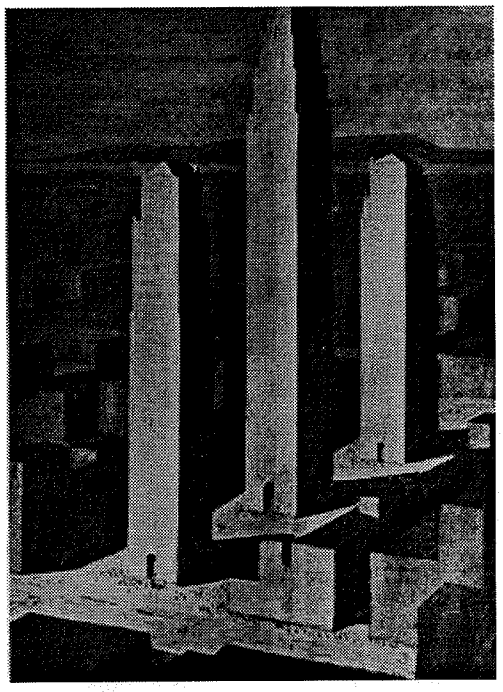


Fig. 70. Raymond Hood. City of Towers. Circa 1926

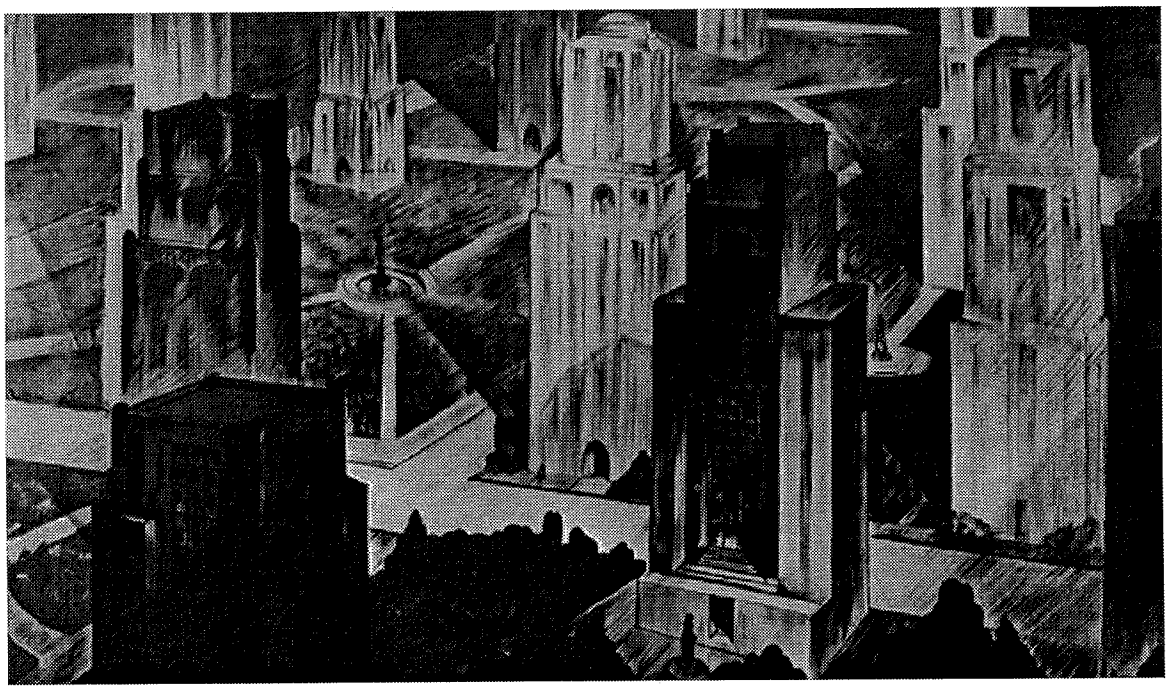


Fig. 71. Harvey Wiley Corbett. Proposed Separation of Towers. 1926

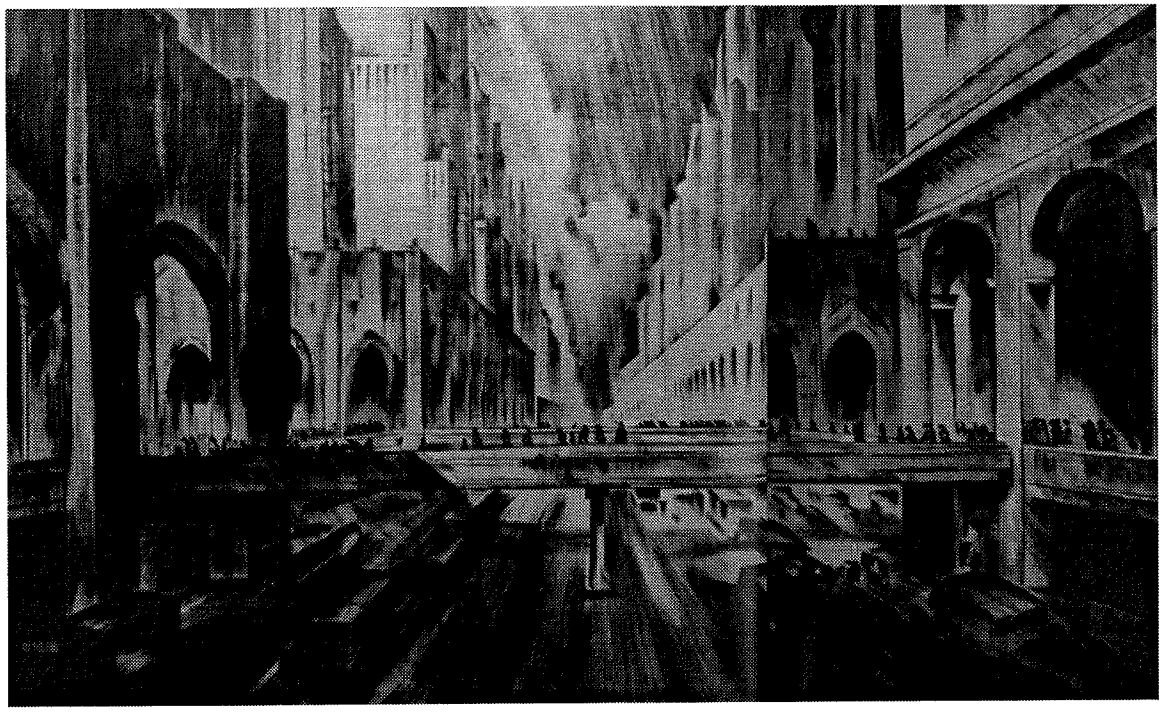


Fig. 72. Advisory Committee of Architects to the Regional Plan of New York
Proposal to Increase Street Capacity

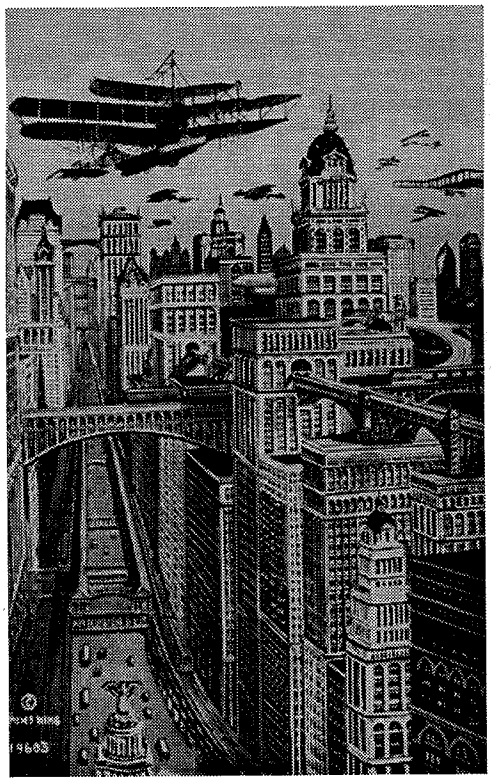


Fig. 73. "Cosmopolis of the Future"

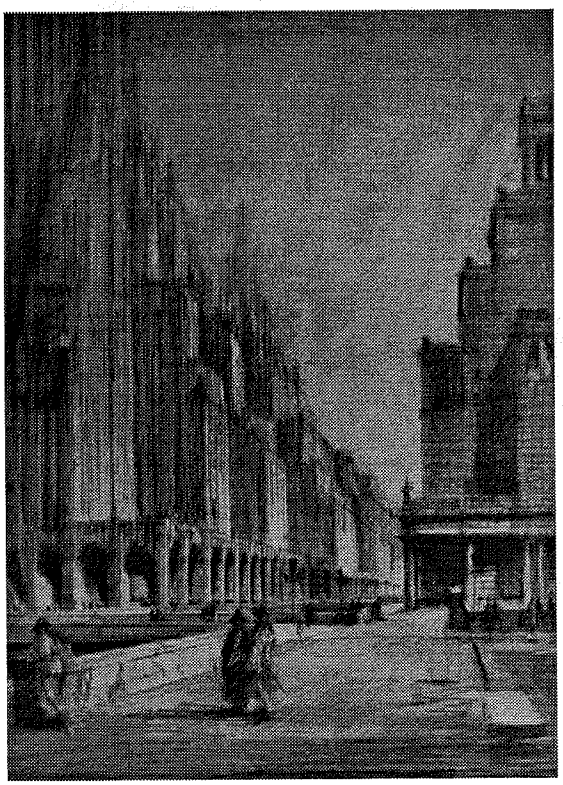


Fig. 74. Modern Venice

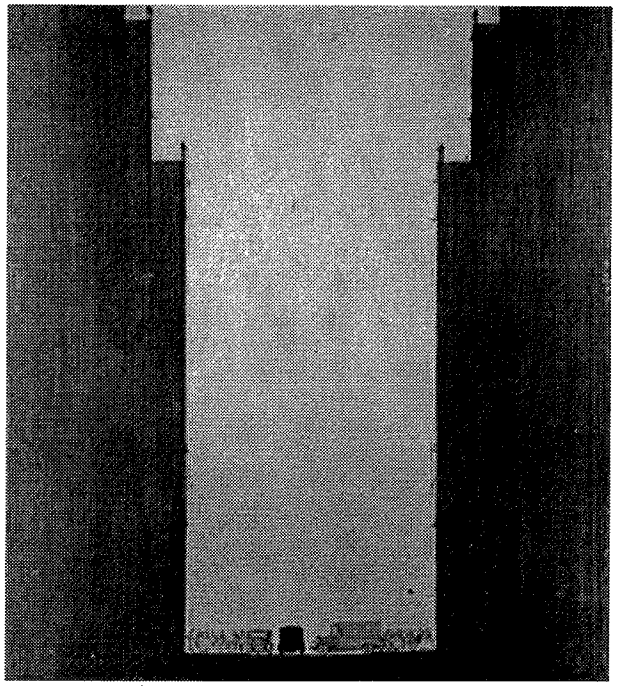


Fig. 75

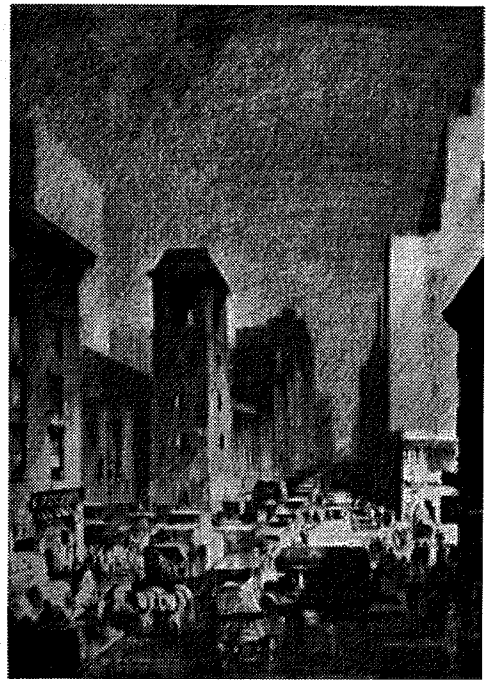


Fig. 76

Figs. 75, 76. Harvey Wiley Corbett. Traffic separation proposal
Present condition

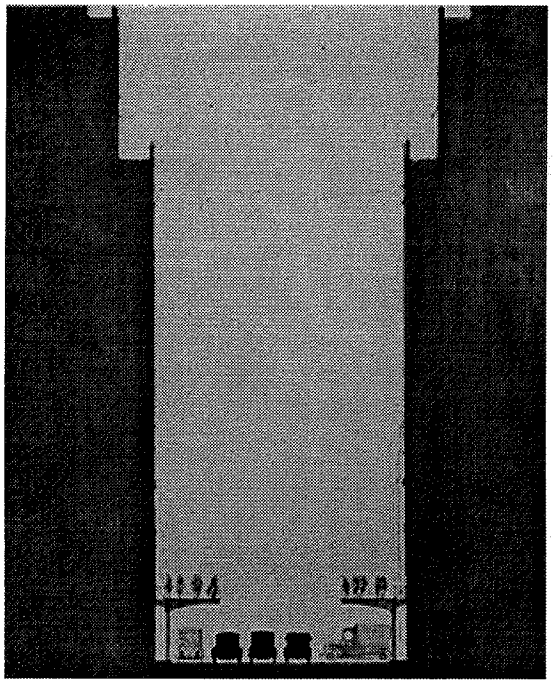


Fig. 77

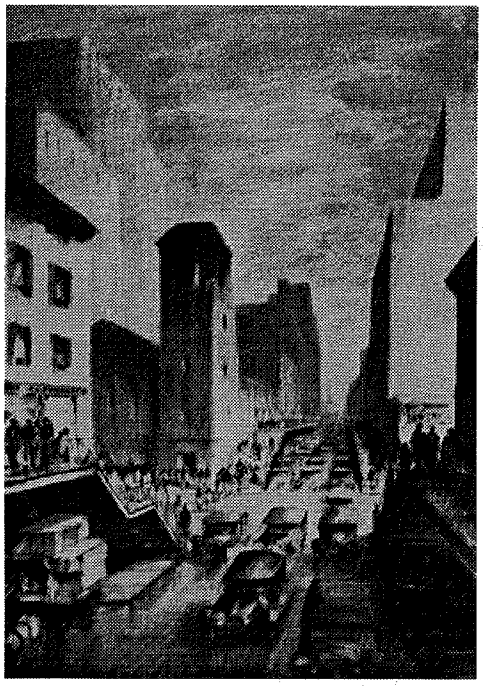


Fig. 78

Figs. 77, 78. Harvey Wiley Corbett. Traffic separation proposal
Stage one

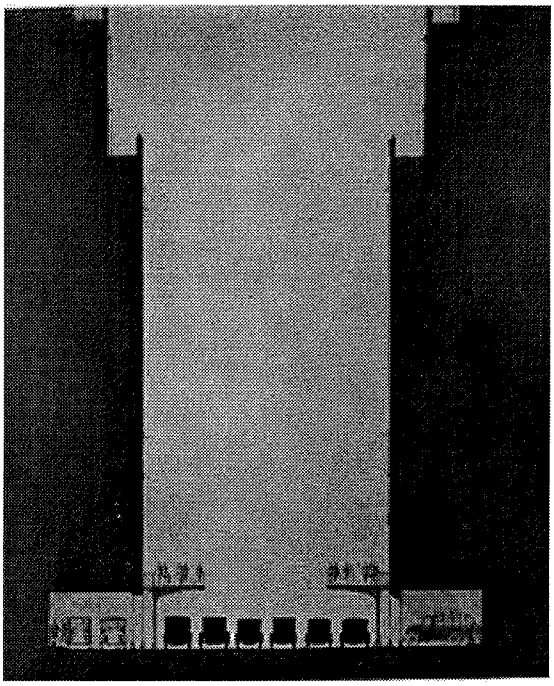


Fig. 79

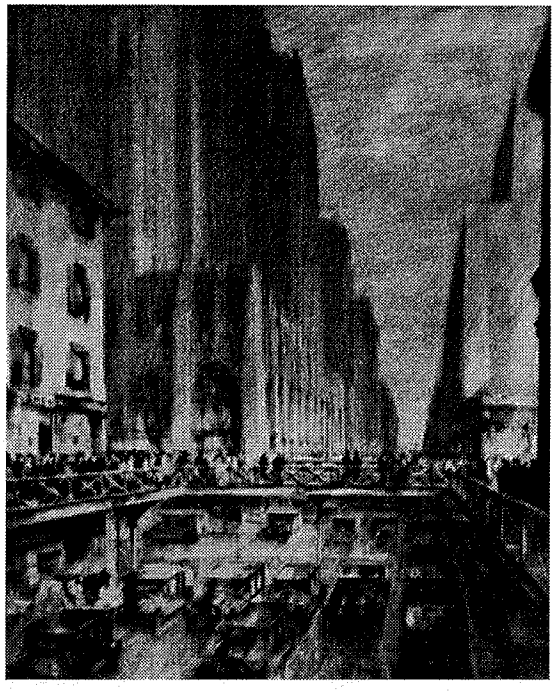


Fig. 80

Figs. 79, 80. Harvey Wiley Corbett. Traffic separation proposal
Stage two

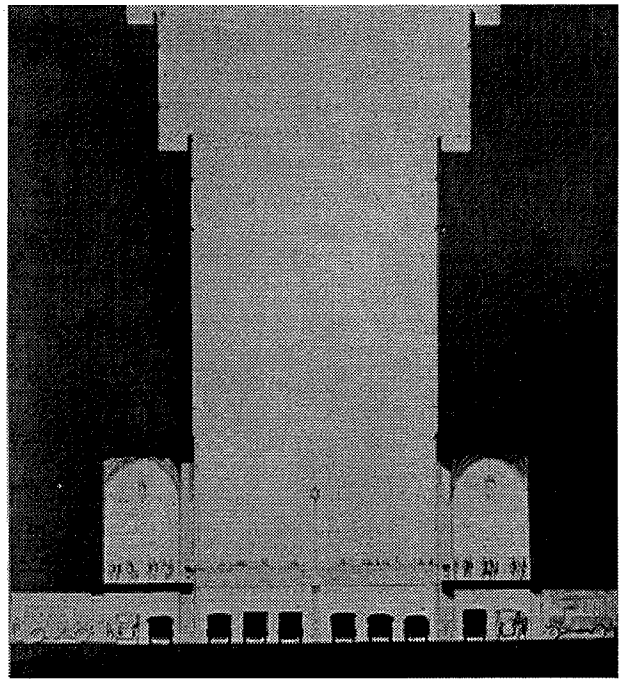


Fig. 81

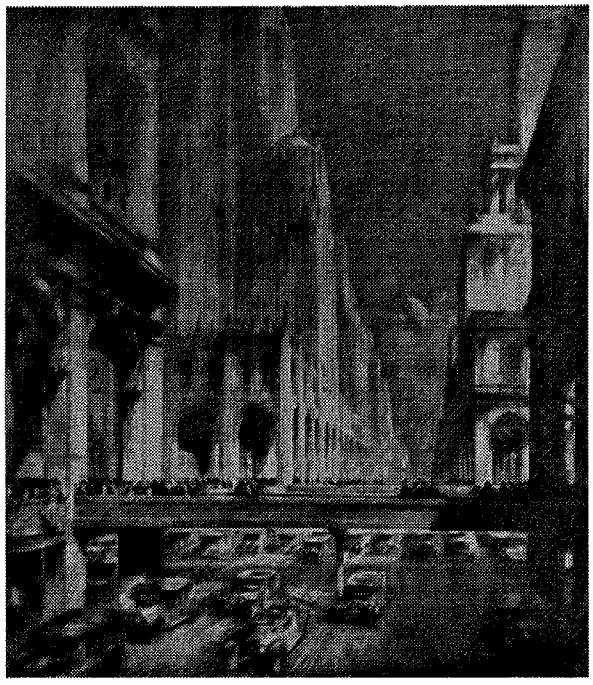


Fig. 82

Figs. 81, 82. Harvey Wiley Corbett. Traffic separation proposal
Stage three

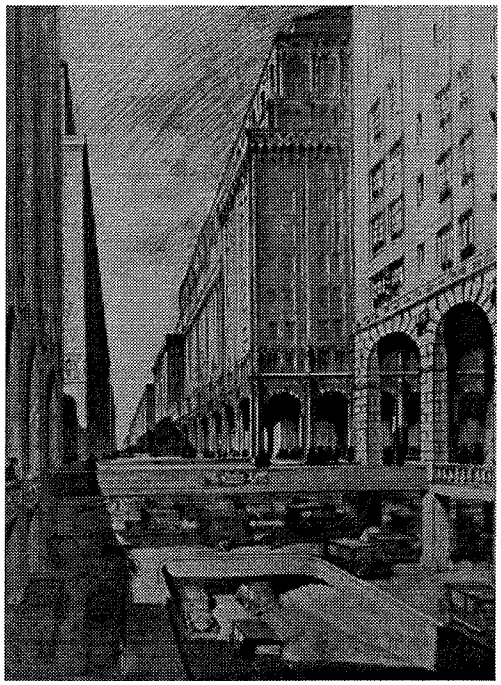


Fig. 83

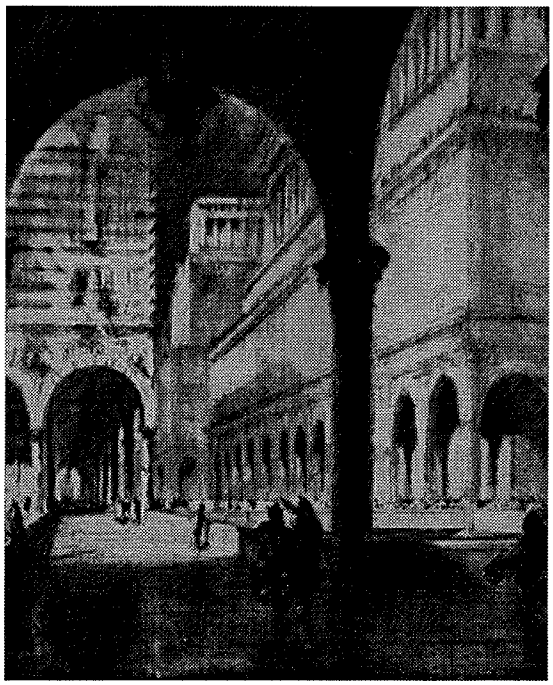


Fig. 84

Figs. 83, 84. Harvey Wiley Corbett. Traffic separation proposal
Final Stage

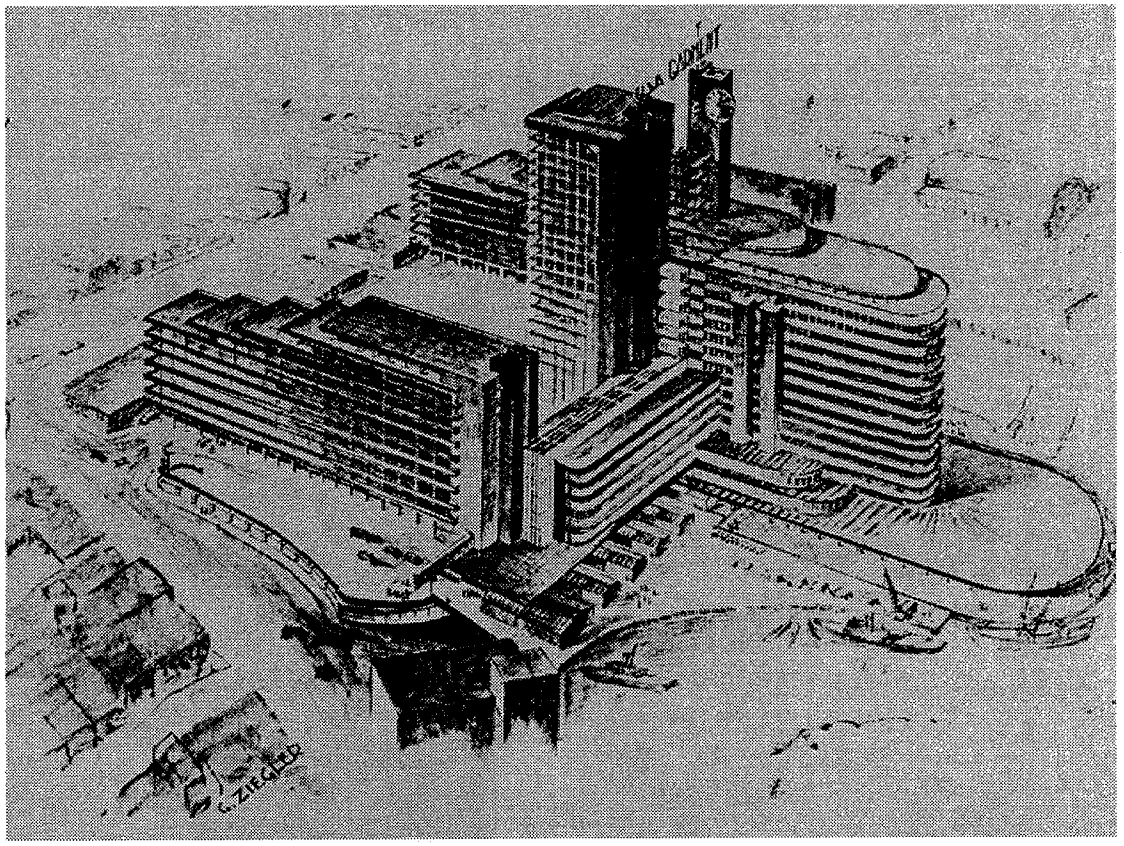


Fig. 85. Harvey Wiley Corbett. Garment Center proposal. 1930

Fig. 86. Harvey Wiley Corbett. "Future New York Street in 1975"

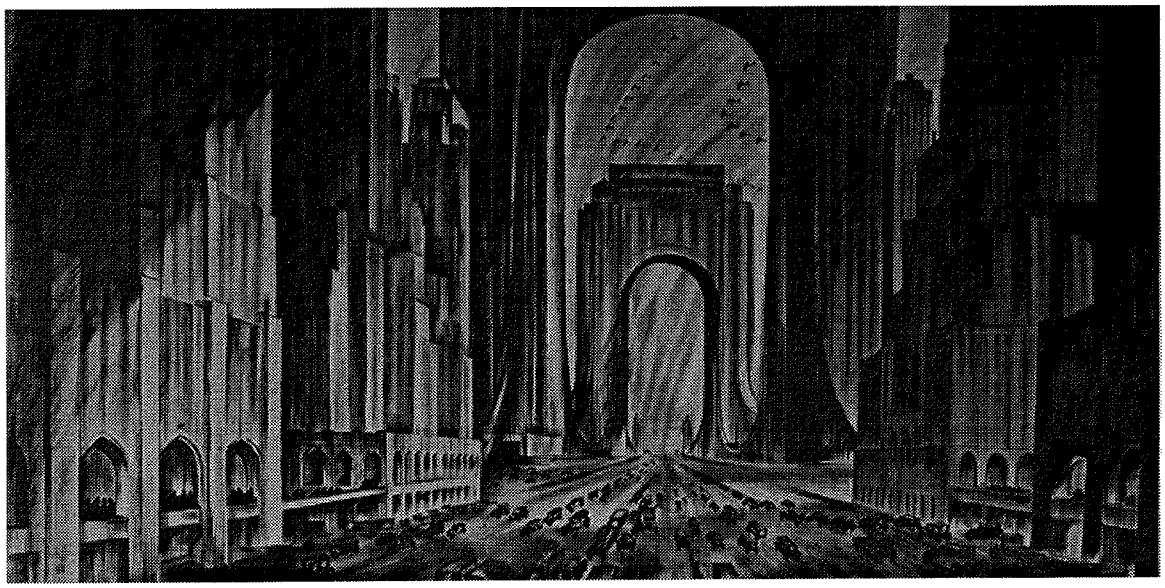


Fig. 87. Harvey Wiley Corbett.
"Towers on a Hudson Bridge Between New York and New Jersey—1975"

Fig. 88. Harvey Wiley Corbett, circa 1930

Fig. 89

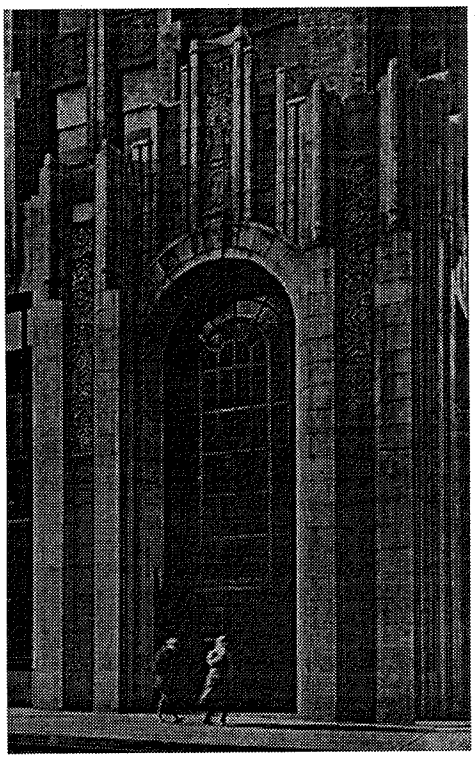


Fig. 90

Figs. 89, 90. Helmle, Corbett & Harrison. Pennsylvania Power & Light Building 1927. Allentown, Pennsylvania

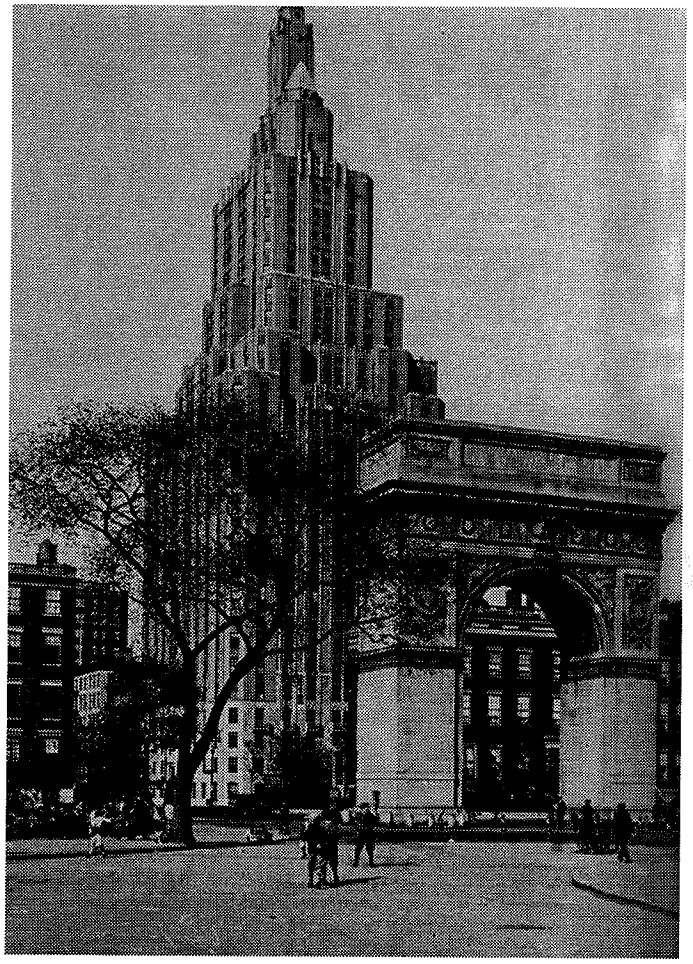


Fig. 91

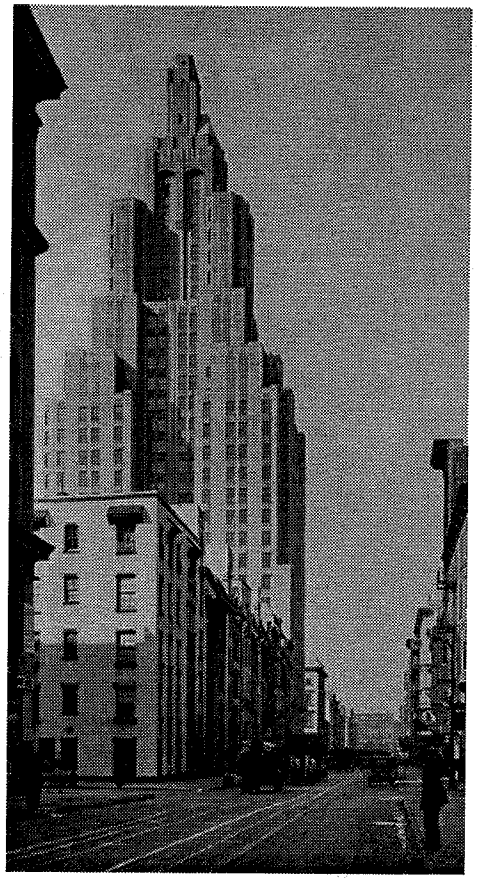


Fig. 92

Figs. 91, 92. Helmle, Corbett & Harrison. One Fifth Avenue. 1927. New York, New York.

Lying below the tower in Fig. 92 is the row of old houses along 9th Street that Corbett, in 1916, renovated into a single block of apartments for Sailor's Snug harbor.

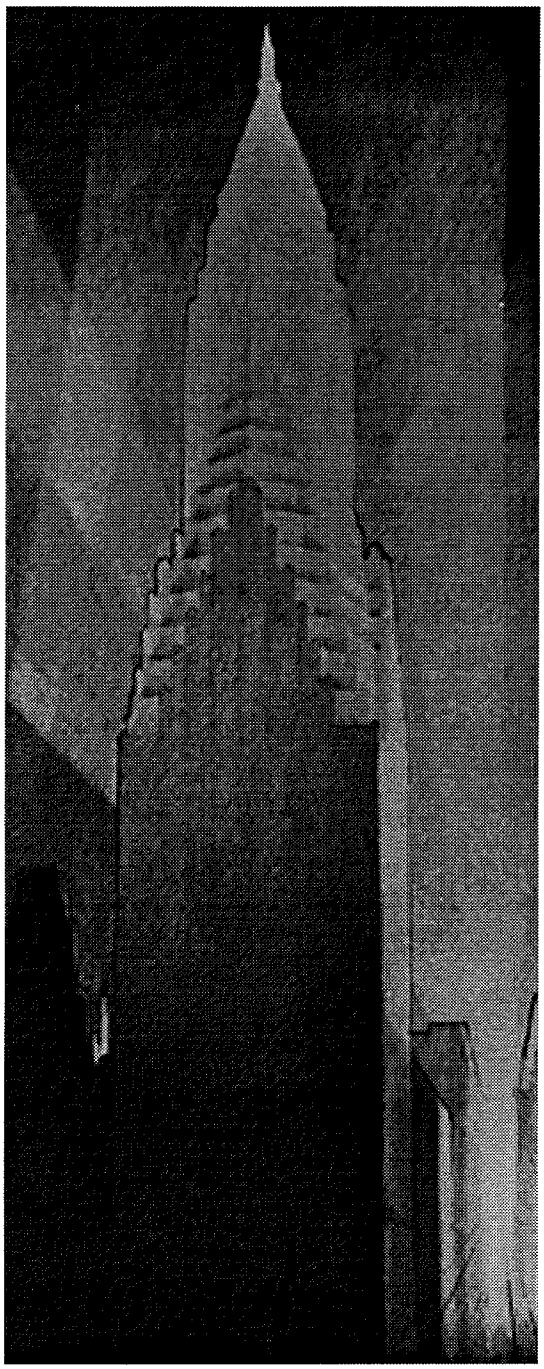


Fig. 93

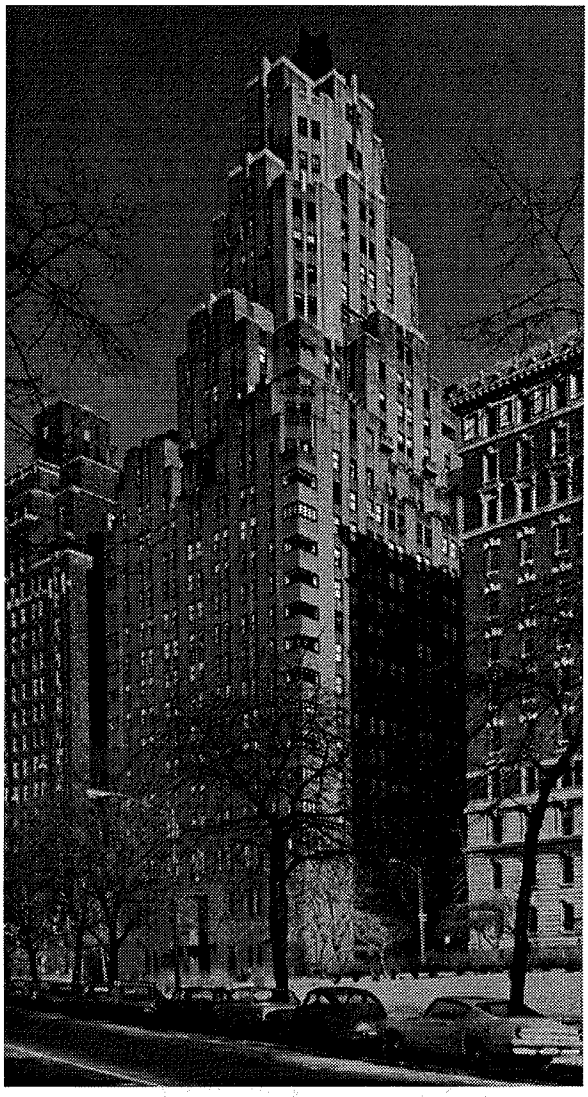


Fig. 94

Fig. 93. Corbett, Harrison & MacMurray. The Belden Project

Fig. 94. Corbett, Harrison & MacMurray. Roerich Museum and Master Apartments 1927. New York, New York

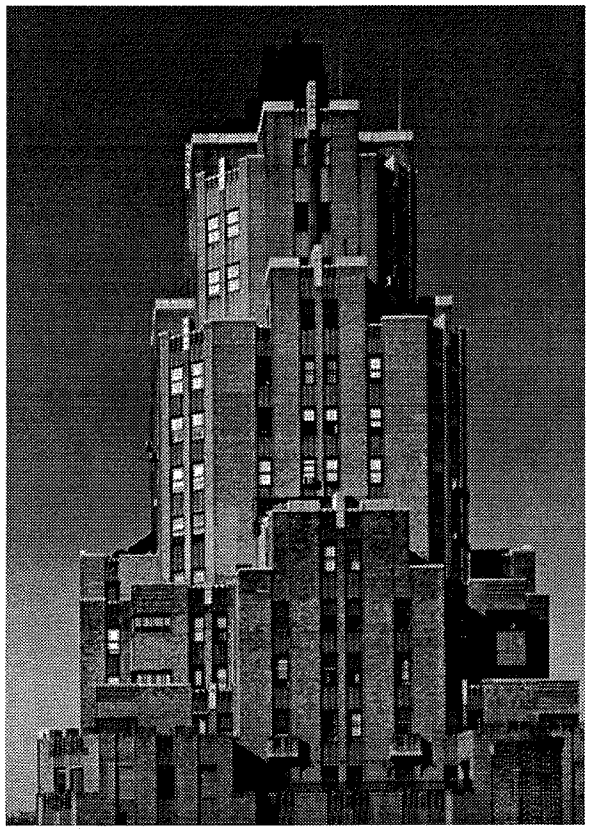


Fig. 95

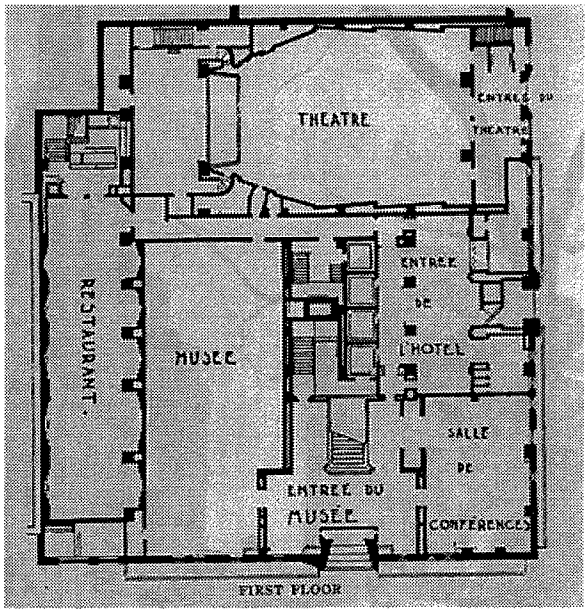


Fig. 96

Figs. 95, 96. Corbett, Harrison & MacMurray. Roerich Museum and Master Apartments 1927. New York, New York

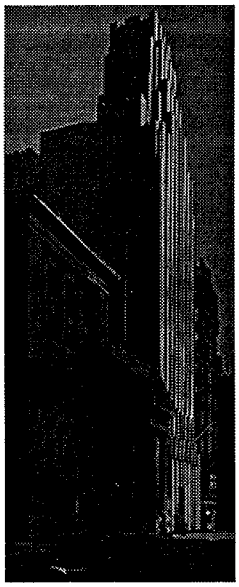


Fig. 97

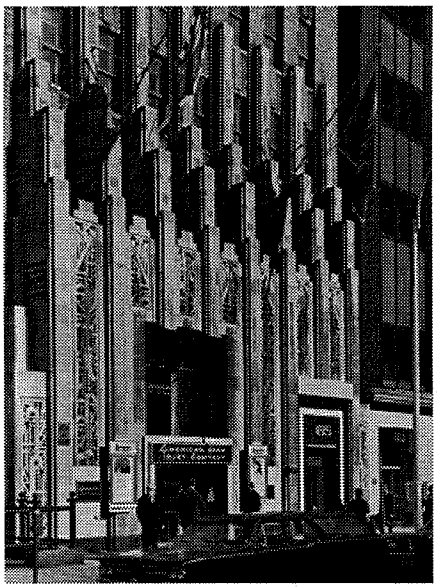


Fig. 98

Figs. 97, 98. Corbett, Harrison & MacMurray. National Title Guarantee Company 1930. Brooklyn, New York

Fig. 99. Corbett, Harrison & MacMurray. National Title Guarantee Company. 1930. Brooklyn, New York

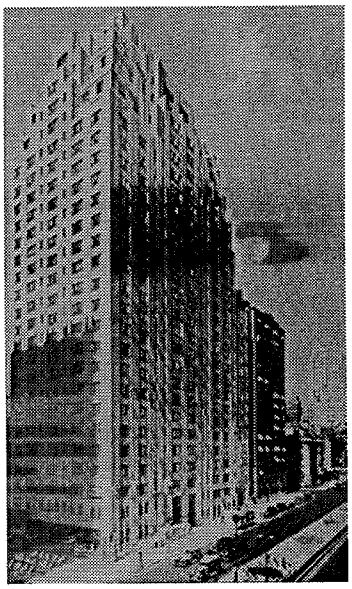


Fig. 100

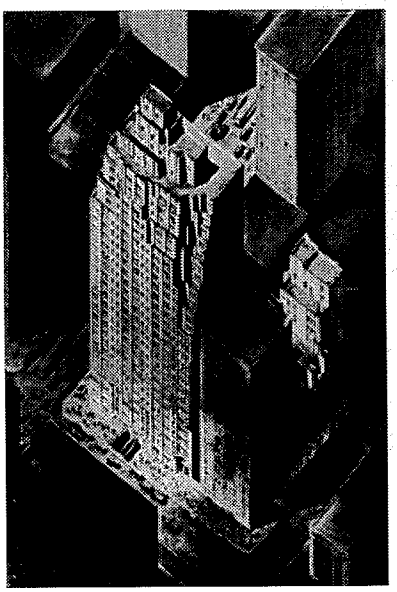
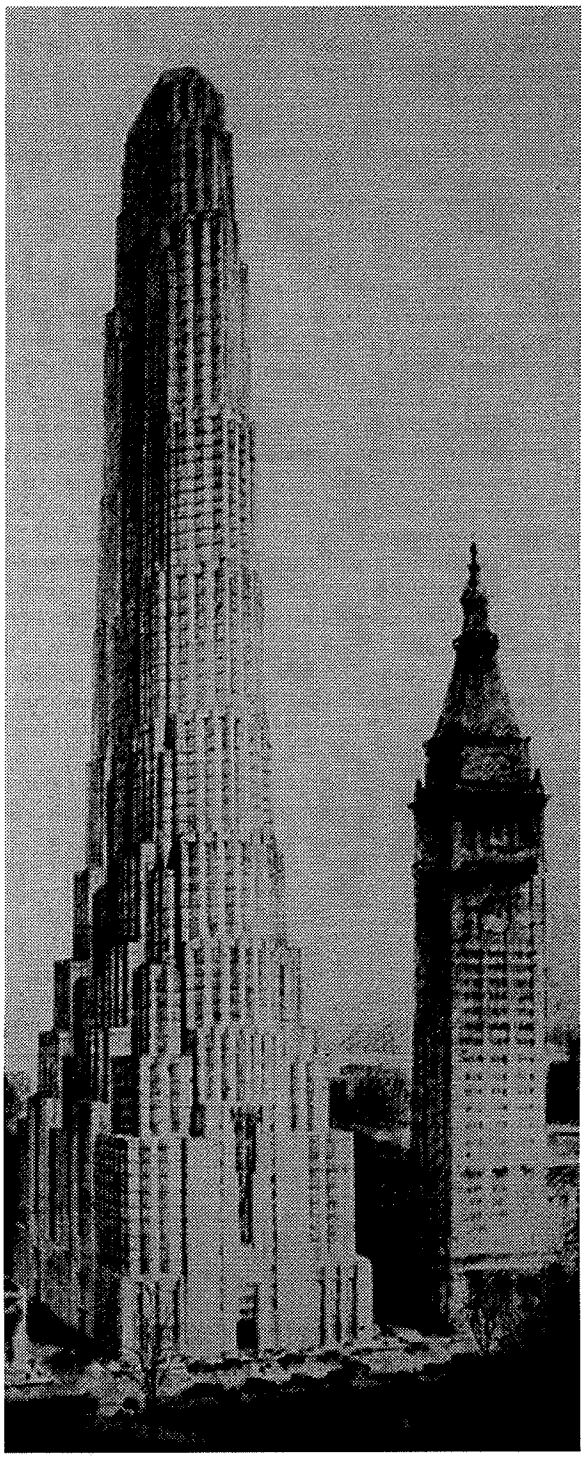


Fig. 101

Figs. 100, 101. Corbett, Harrison & MacMurray. Ten Park Avenue. 1931. New York, New York



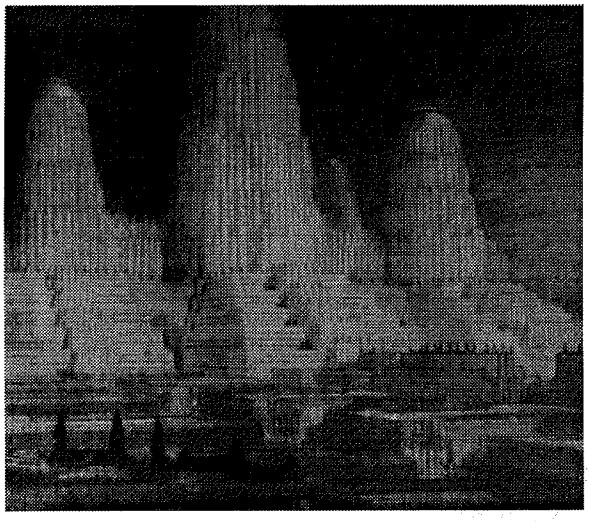


Fig. 102 Fig. 103

Fig. 102. Harvey Wiley Corbett and D. Everett Waid. Proposed Metropolitan Life tower. 1929

Fig. 103. Hugh Feriss. "Art Center"

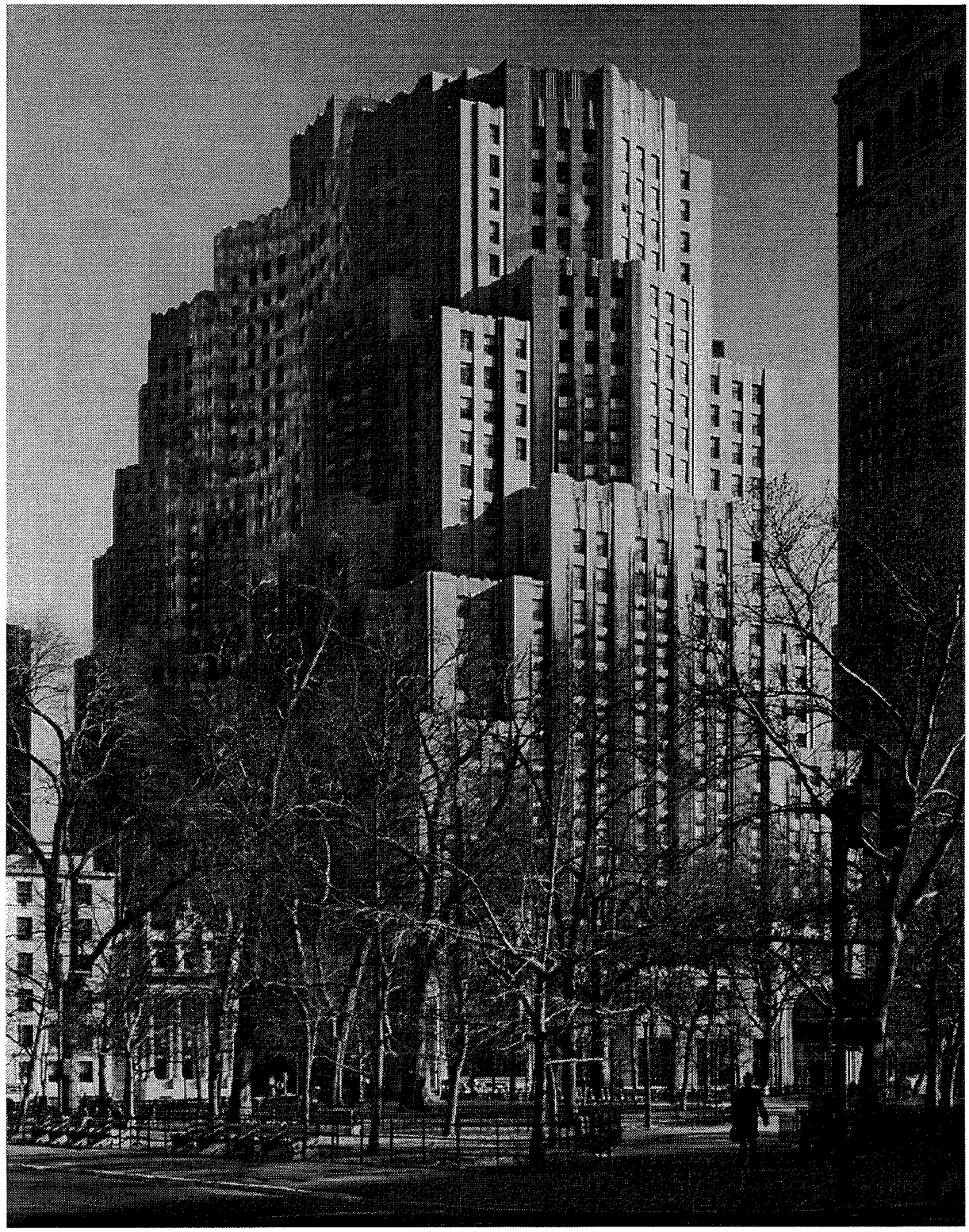


Fig. 104. Harvey Wiley Corbett and D. Everett Waid.
Metropolitan Life, North Building
1932-1933; 1939-1940. New York, New York

Fig. 105

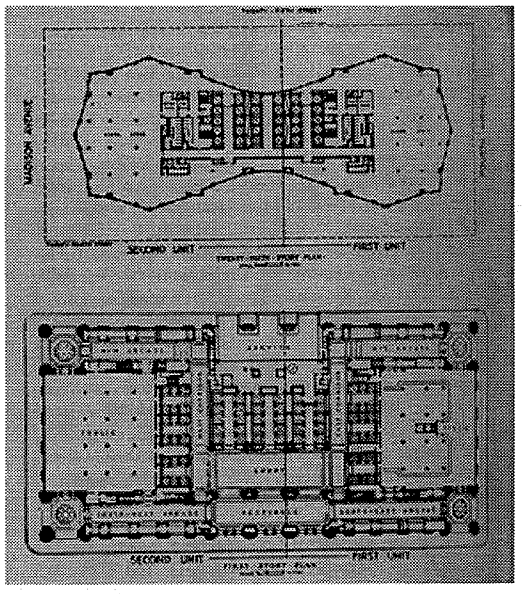


Fig. 106

Fig. 107

Figs. 105, 106, 107. Harvey Wiley Corbett and D. Everett Waid
Metropolitan Life, North Building
1932-1933; 1939-1940. New York, New York

Fig. 108. Harvey Wiley Corbett and Charles B. Meyer
Criminal Courts Building and Prison. 1929
New York, New York

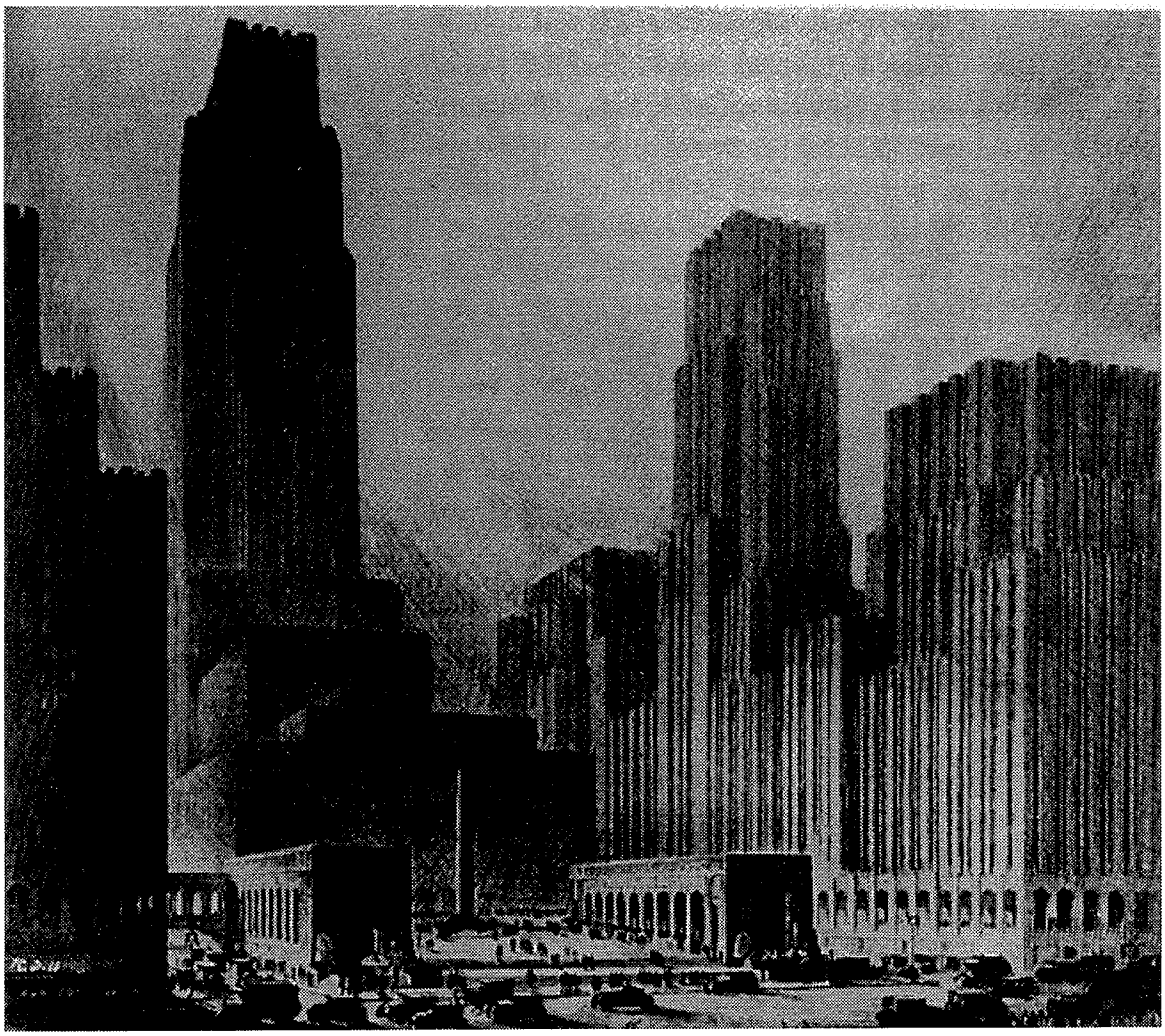


Fig. 109. Harvey Wiley Corbett. Scheme for Metropolitan Square

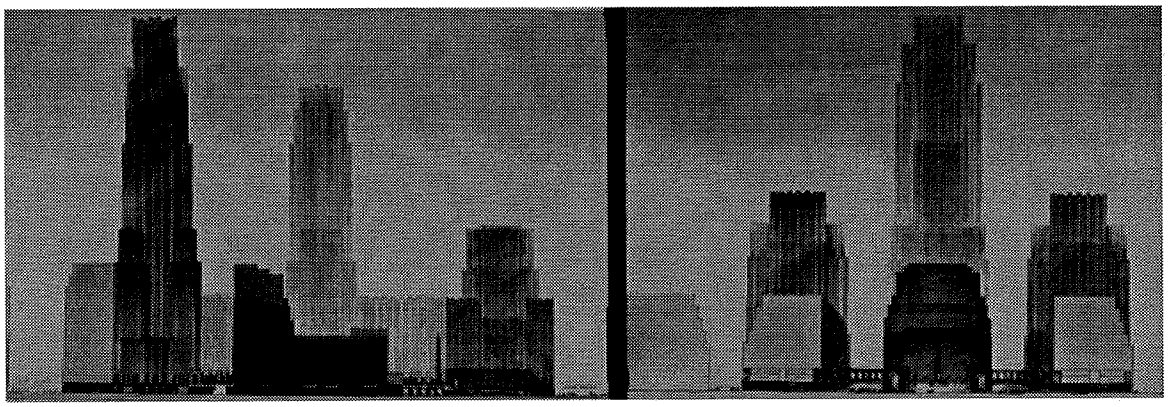


Fig. 110. Harvey Wiley Corbett. Scheme for Metropolitan Square

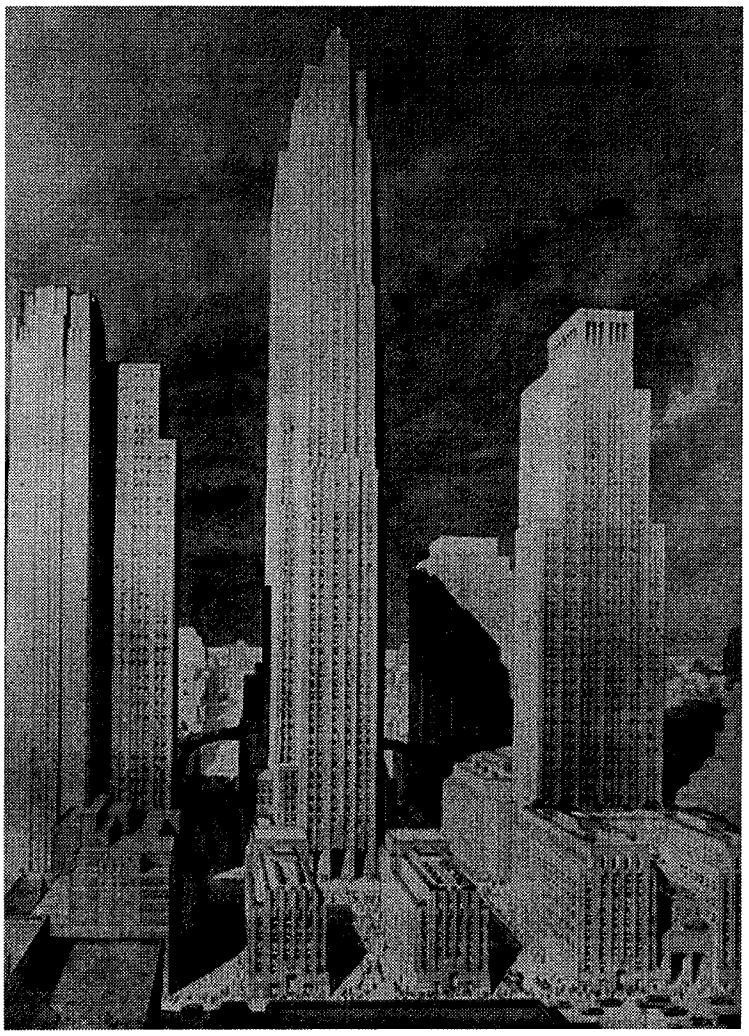


Fig. 111. Associated Architects. Rockefeller Center. 1931-1940.
Note sky bridges across 49th and 50th Streets, a Corbett idea that was abandon during construction.

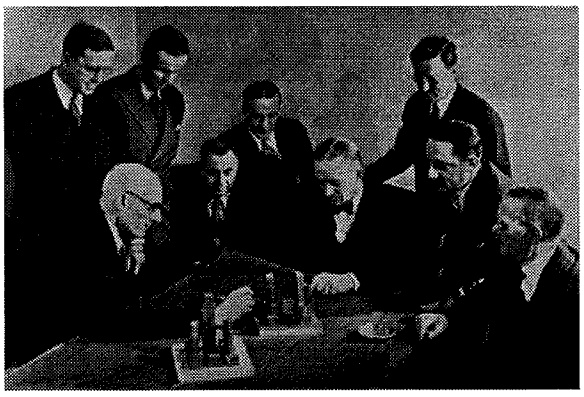


Fig. 112. "Corbett's Move"

Fig. 113. Corbett and Associated Architects

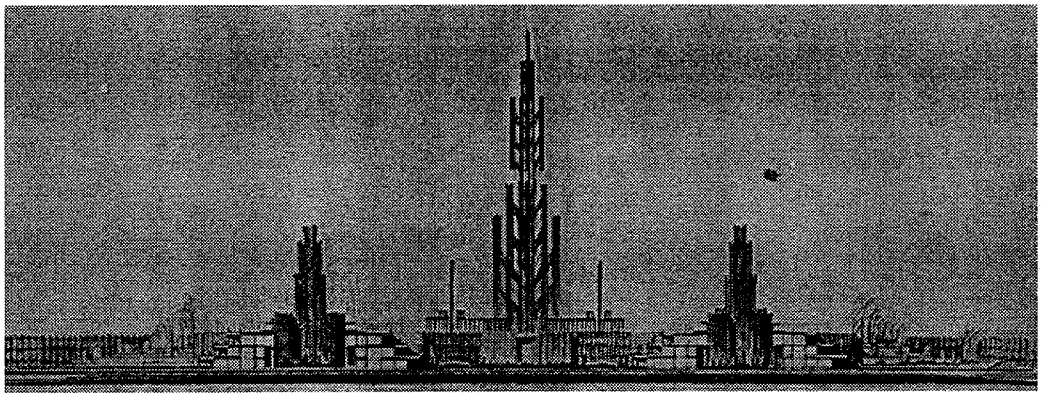


Fig. 114. Harvey Wiley Corbett. proposal for Century of Progress Exhibition

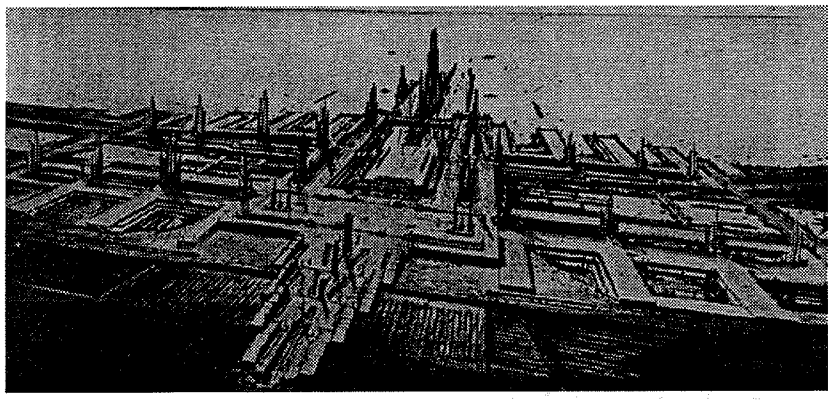


Fig. 115. Harvey Wiley Corbett. proposal for Century of Progress Exhibition

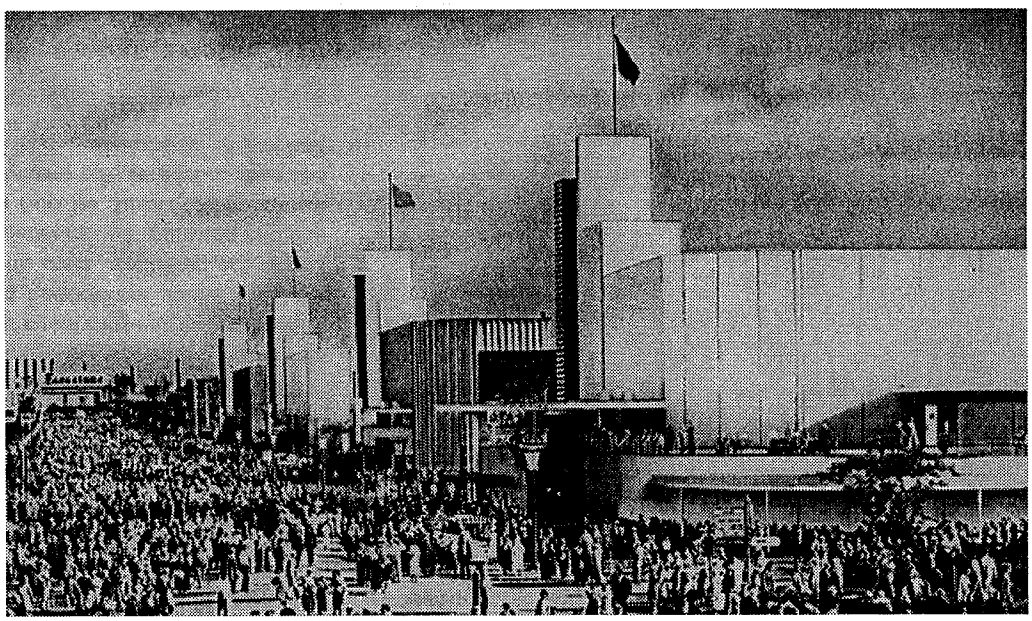


Fig. 116. Harvey Wiley Corbett. General Exhibits Group. 1933

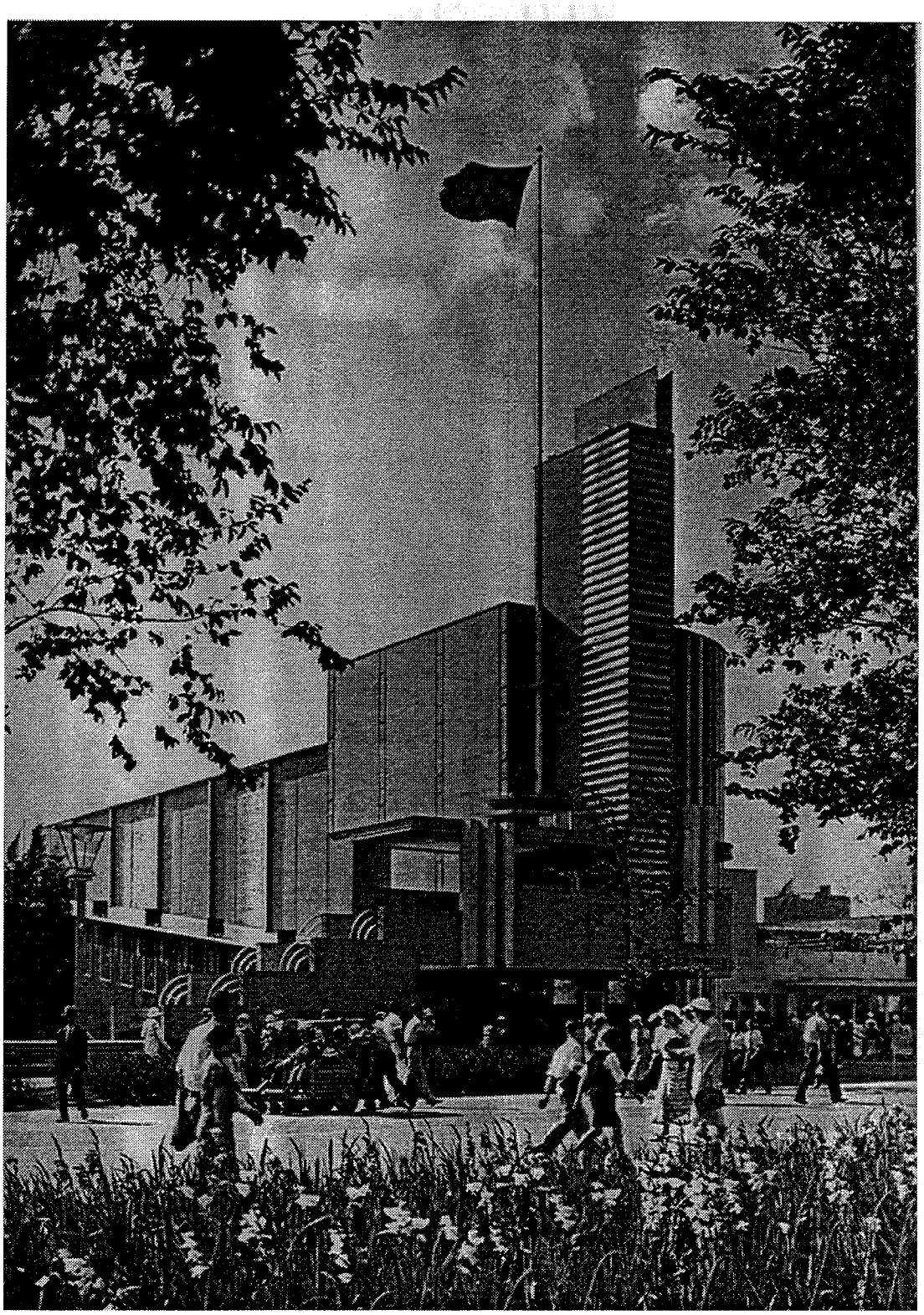
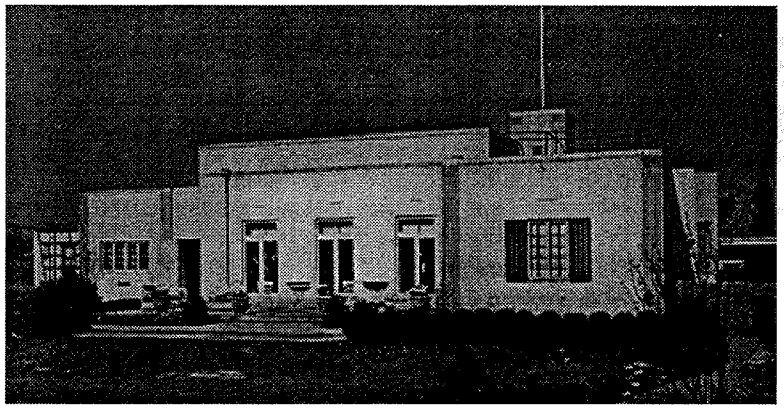


Fig. 117. Harvey Wiley Corbett. General Exhibits Group. 1933



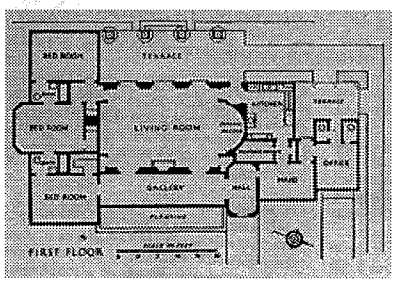


Fig. 118 Fig. 119

Fig. 118, 119. Harvey Wiley Corbett. House of Today. 1933

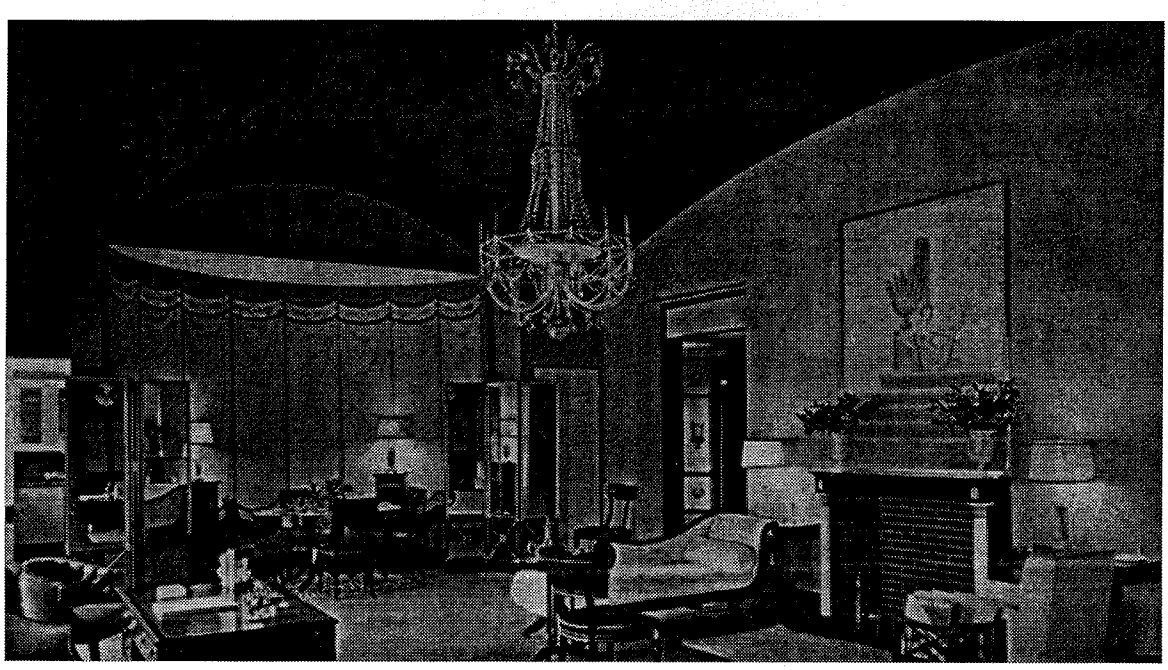


Fig. 120. Harvey Wiley Corbett. House of Today. 1933

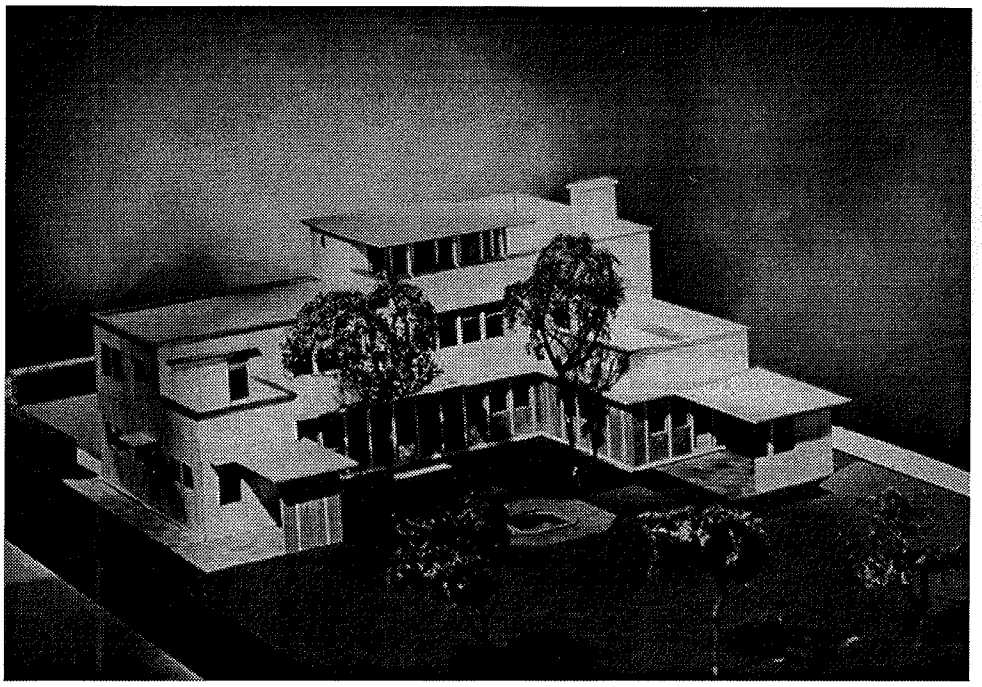


Fig. 121. Harvey Wiley Corbett. Sun House. 1933

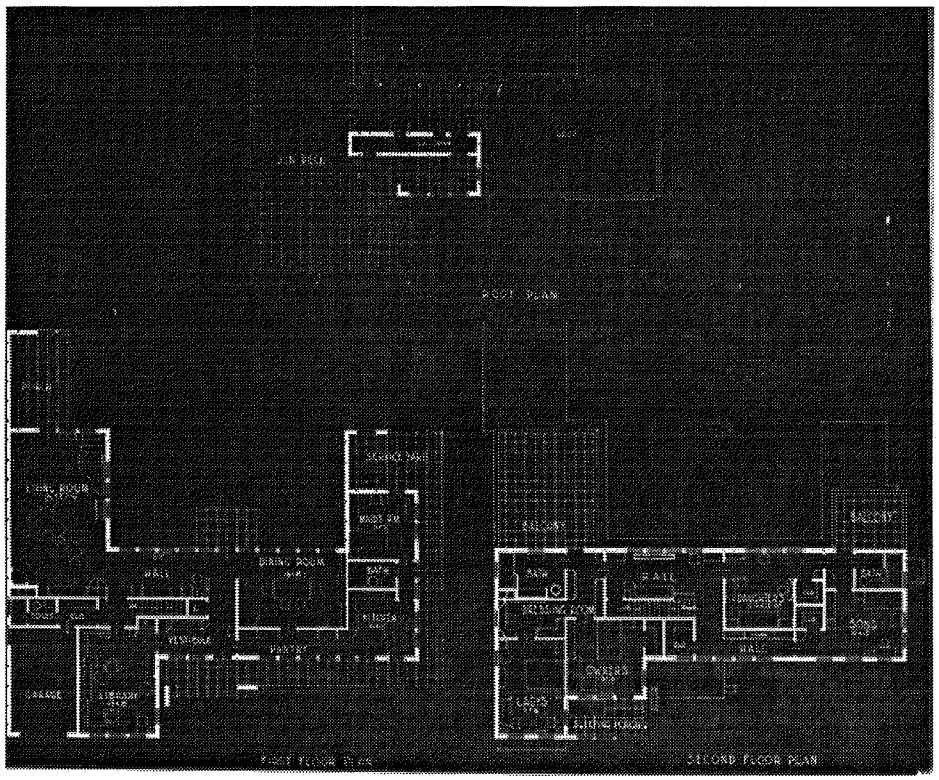


Fig. 122. Harvey Wiley Corbett. Sun House. 1933

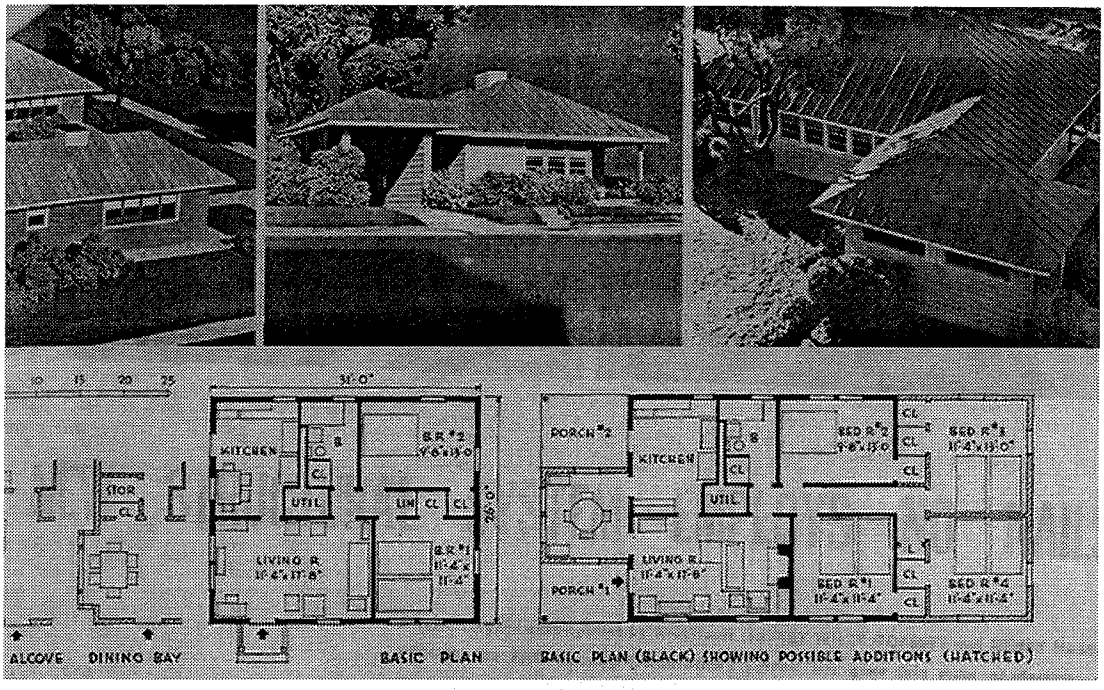


Fig. 123. Harvey Wiley Corbett. PHC prefabricated houses. circa 1938

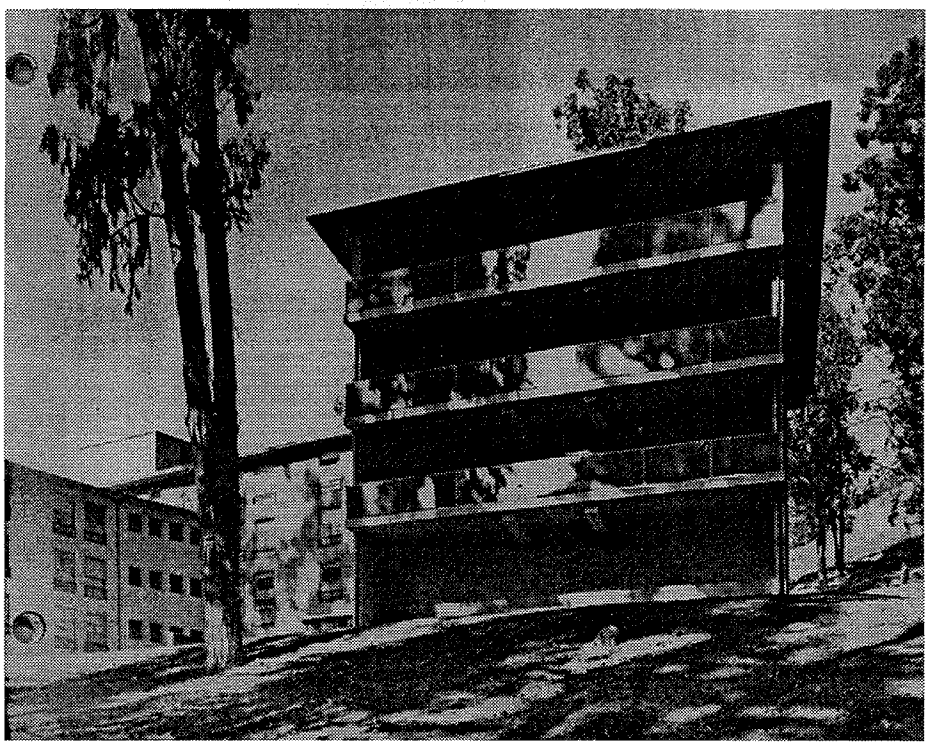


Fig. 124. Harvey Wiley Corbett. Stern Hall. 1941

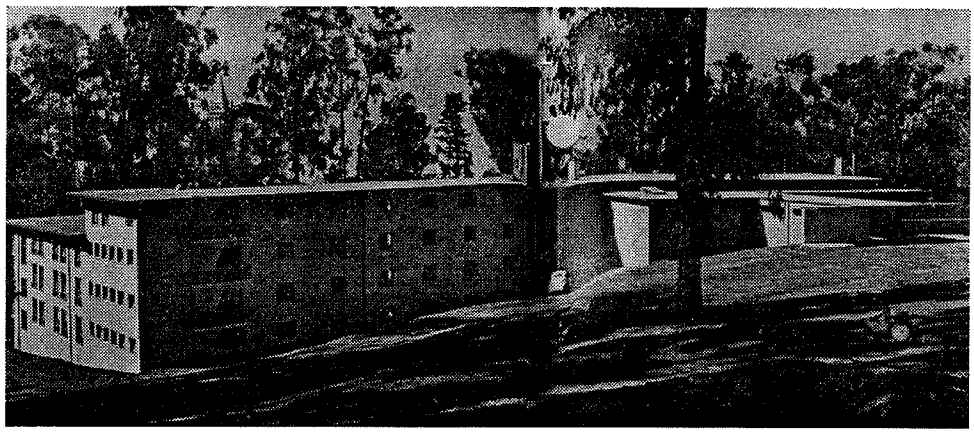


Fig. 125. Harvey Wiley Corbett. Stern Hall. 1941

Fig. 126. Corbett, Holden, and Afterbury. Amsterdam Avenue Houses. 1941

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