ART DECO
ARCHITECTURE
Design, Decoration and Detail from the Twenties and Thirties
by
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hames & Hudson

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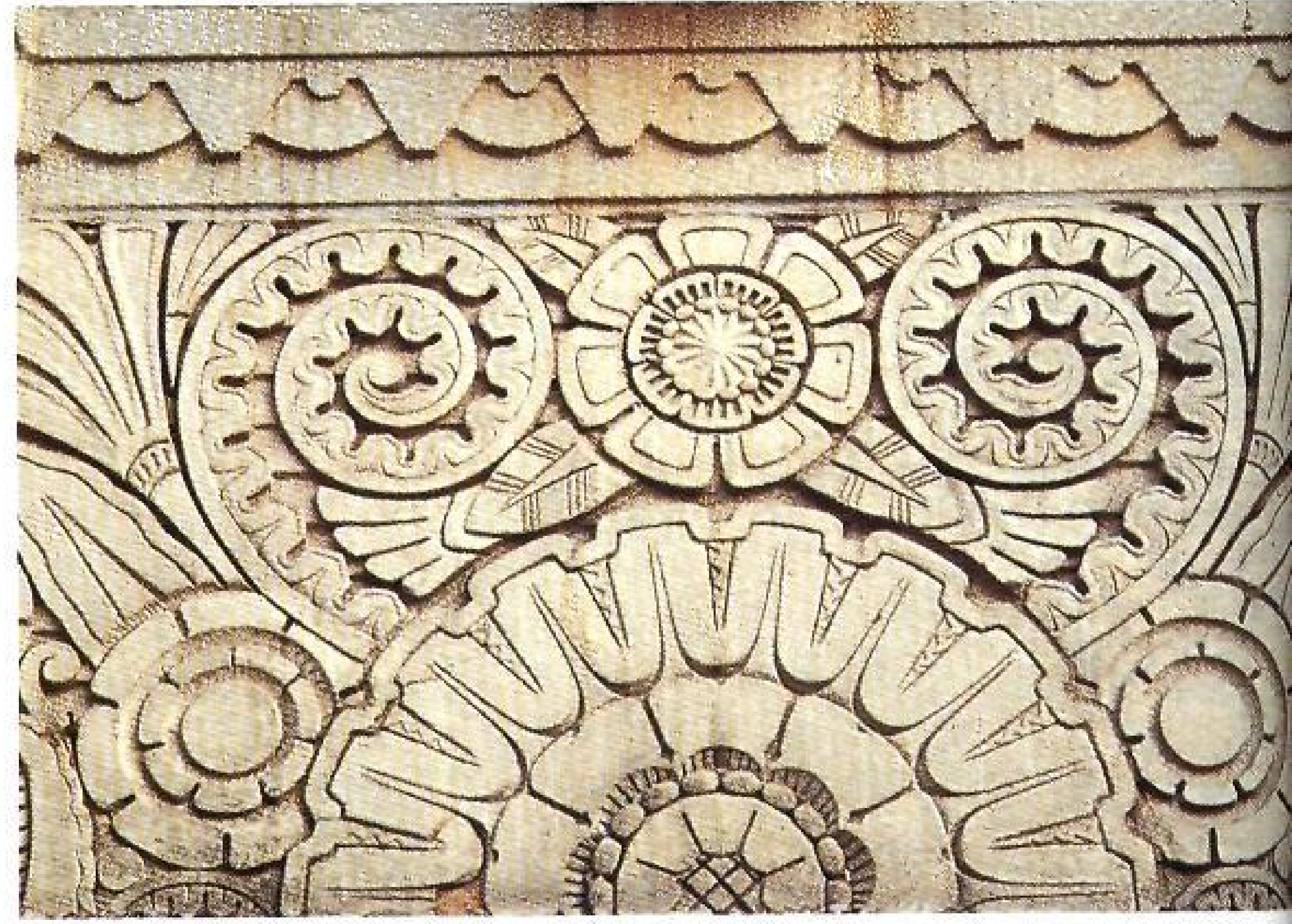

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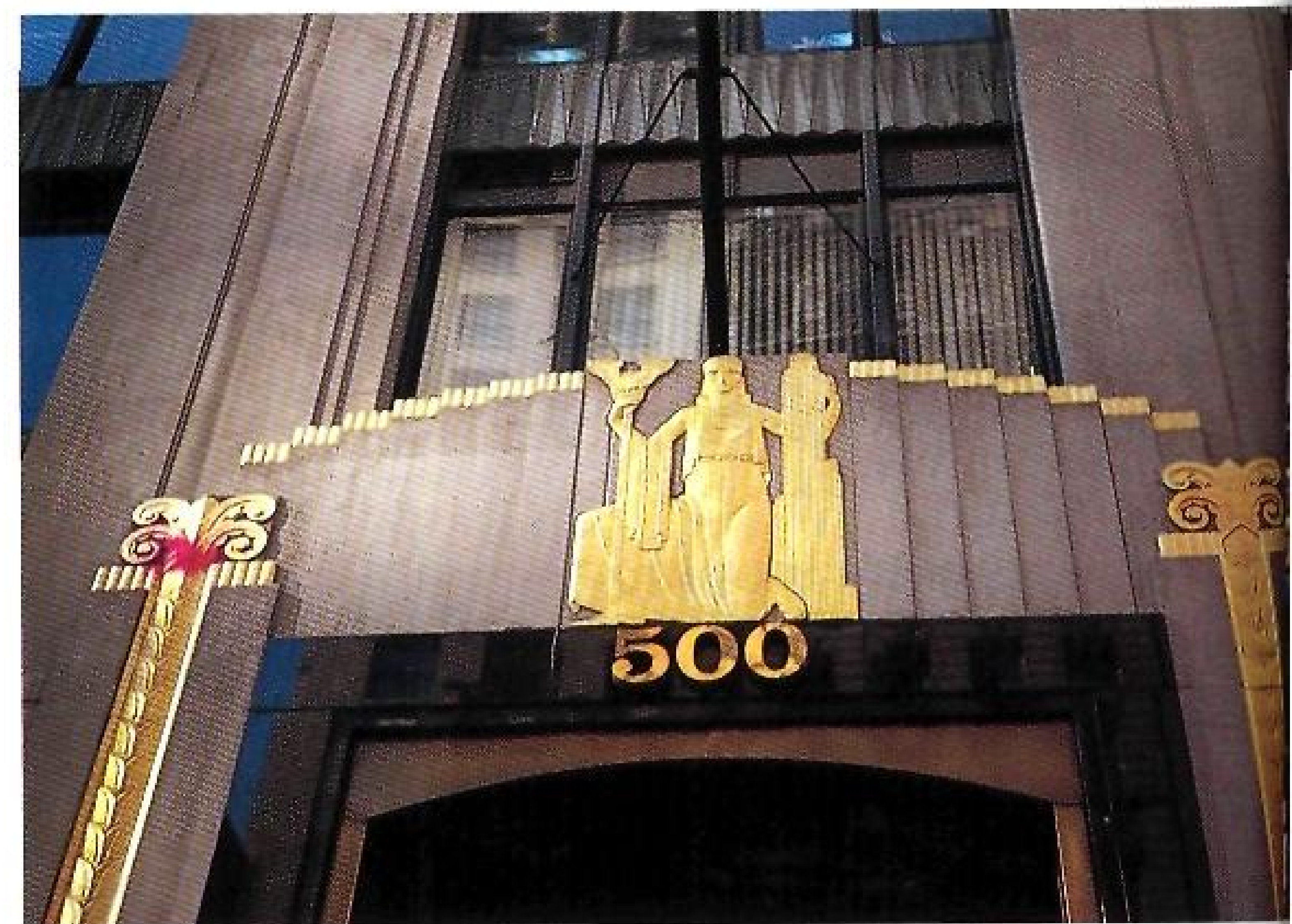
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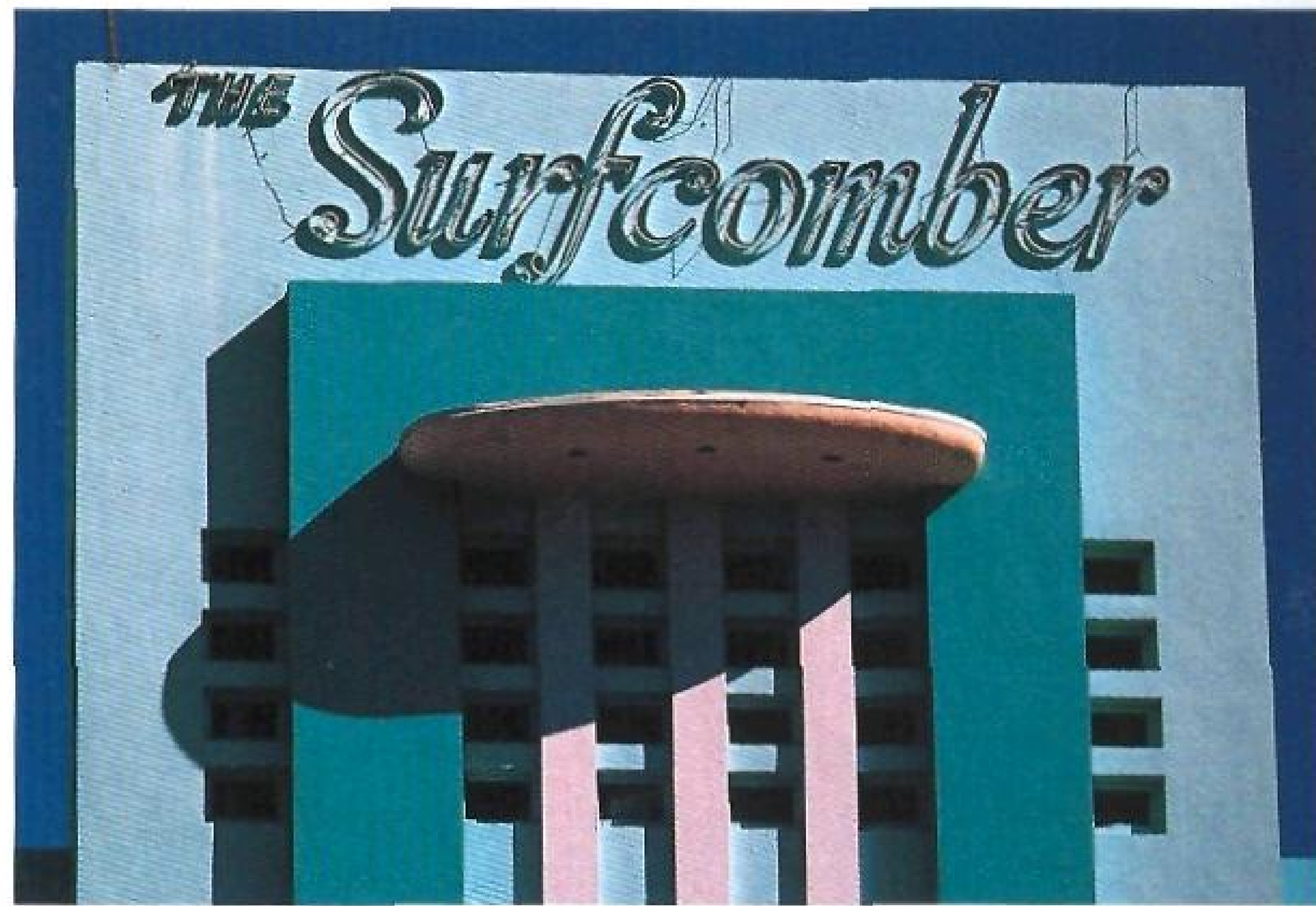
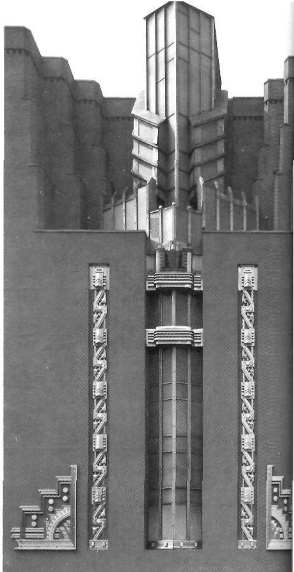
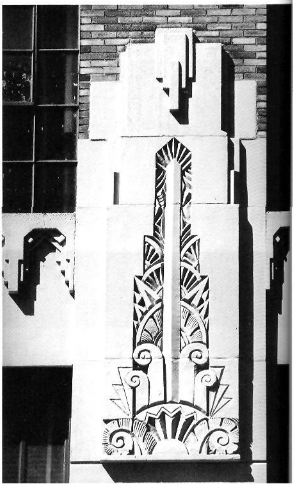

THE Surfcomber

Art Deco followed and coexisted with a number of other styles, many of whose characteristics it sometimes shared: the straight lines of the Modern Movement, Bauhaus, Rationalism, De Stijl and the International Style, and the decorative, highly sculptural elements of the Viennese Secession, Dutch Expressionism (seen at its best in the creations of the Amsterdam School), Scandinavian Romanticism and Neoclassicism, British Arts and Crafts, the Chicago School and Frank Lloyd Wright's successive Prairie School, and even its highly organic immediate precursor, Art Nouveau or Jugendstil. Many creators of Art Deco buildings absorbed the styles of the ancient past as well, imbuing them with an undeniable sense of modernism. This was not the modernism we attribute today to the International Movement, but 'modernism' as the term was more simply applied in the nineteen-twenties and nineteen-thirties meaning something new and different, something exciting and unorthodox, something characterized by a sense of *joie de vivre* that manifested itself in terms of colour, height, decoration and sometimes all three.

Art Deco is in fact a relatively recent term, coming into general usage soon after a 1966 exhibition, 'Les Années "25" Art Déco/Bauhaus/Stijl/ Esprit Nouveau', presented at the Musée des Arts Décoratifs, Paris. 'Art Deco' derived directly from the 1925 Exposition des Arts Décoratifs et Industriels Modernes in Paris, the exciting world fair that was in fact the high point of the French *moderne* style and the starting-off point for American adaptations and offshoots of it.

Art Deco architecture is not an architecture of personalities, of star architects. It is an architecture of the buildings themselves, of their inherent yet overt qualities and of their spirit, energy and immediate visual impact, not of their internal structures, services, floor plans, and front and side elevations. Few members of the general public in the West can name an Art Deco architect, but most are more than familiar, for instance, with the Empire State Building.





The form of Harry Sternfeld and Gabriel Roth's WCAU Building (*right above*) in Philadelphia was meant to represent a radio wave (the 1928 structure's lower section can be seen on page 91). During nocturnal radio broadcasts, a blue light glowed from the glazed parapet. The stepped form of the Pennsylvania structure is echoed in the terracotta decoration adorning a commercial building in 345 Hudson Street, Manhattan (*right*).

The exterior of Ely Jacques Kahn's 2 Park Avenue Building (*opposite*), at 32nd and 33rd streets, New York, was covered with the architect's distinctive, heavy-metal cladding. It was designed in 1927 when the architect was a partner in Buchman & Kahn.

nineteen-twenties, and these largely rectilinear structures, from private houses to hospitals, related both to Native American antecedents and modern European contemporaries.

An important lateral influence on Art Deco was industrial design, a purely twentieth-century phenomenon whose American exponents – Raymond Loewy, Norman Bel Geddes and Walter Dorwin Teague foremost among them – not only held great sway over others in their field, but whose revolutionary ideas and products spread out to other disciplines, including architecture. The strong, often streamlined, forms of industrial design informed many a commercial structure in the nineteen-thirties, and in fact the designers themselves turned their hands to creating actual buildings: Teague built filling stations, Bel Geddes world fair pavilions and Loewy bus terminals. There are even quasi-whimsical but altogether functional examples of new and improved industrially designed products metamorphosing into buildings. Among these are photographic-supply shops with camera façades, refrigerator-crowned and -shaped stepped structures serving as showrooms for the popular new appliance (respectively, Raymond Hood's buildings for Rex Cole in Brooklyn and Queens, New York), Alfonso Iannelli's giant Havoline Thermometer crowning that company's building at the 1933-34 Century of Progress Exposition in Chicago and Walter Dorwin Teague's National Cash Register Company pavilion at the 1939-40 New York World Fair, surmounted by a giant cash register whose numbers tallied up fair attendance. Other examples scattered across the United States include a Moderne teapot-shaped snack bar.

The large ocean-going vessel, an integral part of nineteen-twenties and nineteen-thirties travel, inspired Art Deco buildings of the Streamline Moderne variety. Perhaps the best-known example of borrowing is Robert V. Derrah's 1936-37 design for the Coca-Cola Bottling Company building in Los Angeles, with its portholes, promenade deck, ship's bridge and numerous other maritime details (the company chairman had a keen interest in ships). Elsewhere throughout the world, especially in tropical coastal areas, nautical motifs appeared in profusion. Even in inland Australia, the so-called Modern Ship Style shone in what is probably that country's finest example of Art Deco residential architecture, Burnham Beeches in Sherbrooke, Victoria (Harry Norris, 1933).

Not surprisingly, many of the immediate stylistic precursors of Art Deco, some of which in fact overlapped the style, had a considerable impact on the buildings of the nineteen-twenties and nineteen-thirties. Art Deco did not, after all, emerge out of thin air or as a deliberate reaction to another style. Rather, it evolved quietly from the pre-First World War period, seeing its apotheosis in the 1925 Paris Exposition, and afterwards gaining second-wind momentum, albeit in a filtered-down, multi-faceted guise, in other countries, especially the United States.

Of the many schools and movements in *fin-de-siècle* European architecture, that espoused by members of the so-called Vienna Secession

was the closest in terms of style to the later Art Deco style. Foremost among the Secession projects was the lavish Palais Stoclet, a private house built in Brussels from 1905 to 1910 to a design by Josef Hoffmann, one of the founders of the Wiener Werkstätte (whose members largely furnished the house, along with contributions by Secession artist Gustav Klimt). The Palais Stoclet was at once Neoclassical and contemporary, a low, rectilinear structure of white marble embellished with elaborate bronze sculpture and floral decorations. It foresaw both the no-nonsense, white-box International Style and ornamented Art Deco, while occupying a pedestal all its own in early twentieth-century architectural terms.

More than any other British structures, the creations of Charles Rennie Mackintosh – the Glasgow School of Art foremost among them – look forward to aspects of Art Deco, especially in colour, texture and stylized decoration in stone, metalwork and glass. Likewise, traces of the distinctive conventionalized leaf and other organic devices used by architects and designers of the Arts and Crafts Movement in Britain (and the United States) can occasionally be discerned in fantastic species of Art Deco flora (for example, some of the bas-reliefs adorning the 1930 Southern New England Telephone Company building in Hartford).

In 1914-16 in Manchester, England, Edgar Wood designed and had built for himself Royd House, an unusual brick residence whose concave front elevation, with a bold zigzag design over the door that almost reached to the roof line, has been called by design historian Bevis Hillier 'a visionary building . . . the most striking single precursor of Art Deco'. Also in the spirit of the future were some German turn-of-the-century structures built in the Jugendstil mode. Austrian Joseph Maria Olbrich's long, low Ernst Ludwig House at Mathildenhöhe, the artists' colony set up from 1900 to 1907 near Darmstadt by Grand Duke Ernst Ludwig of Hesse, features striking decoration at the entrance: two huge human figures and, behind them, bronze angels. The most dramatic building in the complex is Olbrich's Hochzeitsturm (Wedding Tower), whose five-part stepped roof – apparently intended to represent a raised hand – foreshadows later skyscrapers.

An important Parisian precedent of the Art Deco style dates from the Art Nouveau period, although it is far from curvilinear: Auguste Perret's transitional 1902-4 Rue Franklin apartment building, an example of French Rationalism that was revolutionary in its reinforced concrete frame and extensive glazing. Perret's structure is significant in relation to Art Deco for its profuse decoration, characterized not by the snaking foliage of Art Nouveau, but more by stylized flowers and dense circular patterns, designed by Alexandre Bigot and moulded on to large *grès* ceramic tiles. Though these did not directly prefigure the stylized blossoms and geometric ornament of Art Deco, nonetheless their designs serve as a bridge between the organic veracity of Art Nouveau and a more ordered floral fantasy of Art Deco.

Another Continental movement with roots in the early twentieth century and branches extending to Art Deco (as well as to the International Style)

was Expressionism, in both its German and Dutch manifestations. This eclectic anti-historicizing architectural style, which found its initial expression a decade or so before the First World War but flourished in the nineteen-twenties, was a logical progression from Jugendstil. Peter Behrens' monumental glass and steel turbine factory of 1908-9, for the Allgemeine Elektrizitätsgesellschaft (German General Electric Company) provided inspiration, if not a model, for many Art Deco-era factories. Equally significant were the decorative brick-clad water tower and exhibition hall (1911) in Poznán, Poland, by Hans Poelzig, and two later structures: the futuristic Einstein Tower (1917-21) at Potsdam, by Erich Mendelsohn, and the sharp upwards-thrusting, elaborately decorated Chilehaus (1922-23), Fritz Höger's Berlin masterpiece.

In contrast to the mainly industrial structures which came to define German Expressionist architecture, Dutch Expressionism's Amsterdam School found its best expression in handsome brick buildings, including low-cost housing in that city. A plethora of sculptural and other decorative elements abounded in these vibrant structures, whose principal creators were Johan Melchior van der Mey, Michel de Klerk and Piet Lodewijk Kramer (who were largely influenced by Hendrik Berlage and the young Frank Lloyd Wright). Besides the various residential structures created by the three main figures, significant Amsterdam School structures included the Scheepvaarthuis office building (1911-16), a collaborative effort of the three which housed a half dozen major shipping firms and whose densely decorated façade contained sculptural references to the sea, and Kramer's De Bijenkorf (The Beehive) department store in The Hague (1924-25), which could easily be called Art Deco with its curved elements, relief sculptures and harmonious combination of brick, glass and concrete. De Klerk designed a fantastic but unrealized high-rise in 1920.

One structure that was to inspire (indirectly) American architects of the nineteen-twenties and thirties was Eliel Saarinen's 1904-14 Railway Station in Helsinki, which is at once a manifestation of Art Nouveau, Neoclassicism and National Romanticism. Its four monumental figures by Emil Wikstrom, two each astride the main entrance arch, relate to both contemporaneous Viennese structures and later Art Deco skyscrapers, and the masterful stone massing and streamlined details presage later such monumental travel-related structures.

Italian Futurist architecture was dominated by Antonio Sant'Elia, virtually none of whose projects was ever realized (he left behind over 300 powerful, visionary drawings after his death in the First World War). Influenced by Italian Art Nouveau (Stile Liberty) architects, as well as the Vienna Secession and early American skyscrapers, Sant'Elia evolved his own futuristic architectural vocabulary, much as did Hugh Ferriss, the New York architect-draughtsman whose spectacular creative projects existed only on paper. Massive terraced structures, dizzying loops of roadways, slim concrete and steel spans and other grand, ultimately romantic, elements comprised Sant'Elia's utopian conurbations. His one quasi-realized project, the 1933

The Bauhaus thrived in Germany from 1919 to 1933, after which time other European countries and the United States benefited from the talents of many of its teachers and students. Informed by such movements as Arts and Crafts, De Stijl and Russian Constructivism, all of which encouraged the collaborative efforts of artists, designers and architects, the Bauhaus did not in fact have an architecture department until 1927. However, the Bauhaus's founding director (until 1928), Walter Gropius – whose first important building was the massive steel-and-glass Fagus Factory of 1911 – had designed a complex of functionalist school buildings at Dessau, where the 'campus' moved from Weimar in 1925. Residential structures by Bauhaus architects, such as Mies van der Rohe's Tugendhat House in Brno (1930), related chiefly to French and other European Modernist counterparts.

Among the Russian architects working in the twenties and thirties the foremost was Konstantin Melnikov, whose double-cylindrical design for his own Moscow house (1927), punctuated with myriad hexagonal windows, was a fascinating model of Modernism. More Cubist but equally dramatic *was his Rusakov Club (1927-28), one of a series of five workers' clubs in* Moscow: its salient feature was a trio of cantilevered classroom-boxes which extended outwards from the top storey of the building.

In Prague and elsewhere in Czechoslovakia, a short-lived design movement called Czech Cubism began in 1911, with architects Josef Gočár, Vlastislav Hofman and Pavel Janák among its exponents. As with sculptor Raymond Duchamp-Villon's experimental Villa Cubiste (1912), the Cubist elements of the Czech structures largely comprised undistinguished building forms marked by the angular ornamentation on their façades. In this respect they foreshadowed a good many Parisian apartment blocks of the nineteen-twenties, whose overall shapes were indistinguishable from late nineteenth-century Beaux-Arts buildings, but whose decoration (grillework, bas-reliefs and other sculptural elements) was unmistakably Moderne.

Large-scale Neoclassical, neo-Byzantine and neo-Gothic buildings, usually of a civic nature, continued to be built throughout the world in the nineteen-twenties and nineteen-thirties. We can note the following as supreme examples of historical styles: the neo-Byzantine Australian War Memorial in Canberra (John Crust & Emil Sodersten, 1941), Edwin Lutyens' Viceroy's House in New Delhi (1912-31), the 30th Street Station in Philadelphia (Graham, Anderson, Probst & White, 1929-34) and the Supreme Court of Canada in Ottawa (Ernest Cormier, 1938-39).

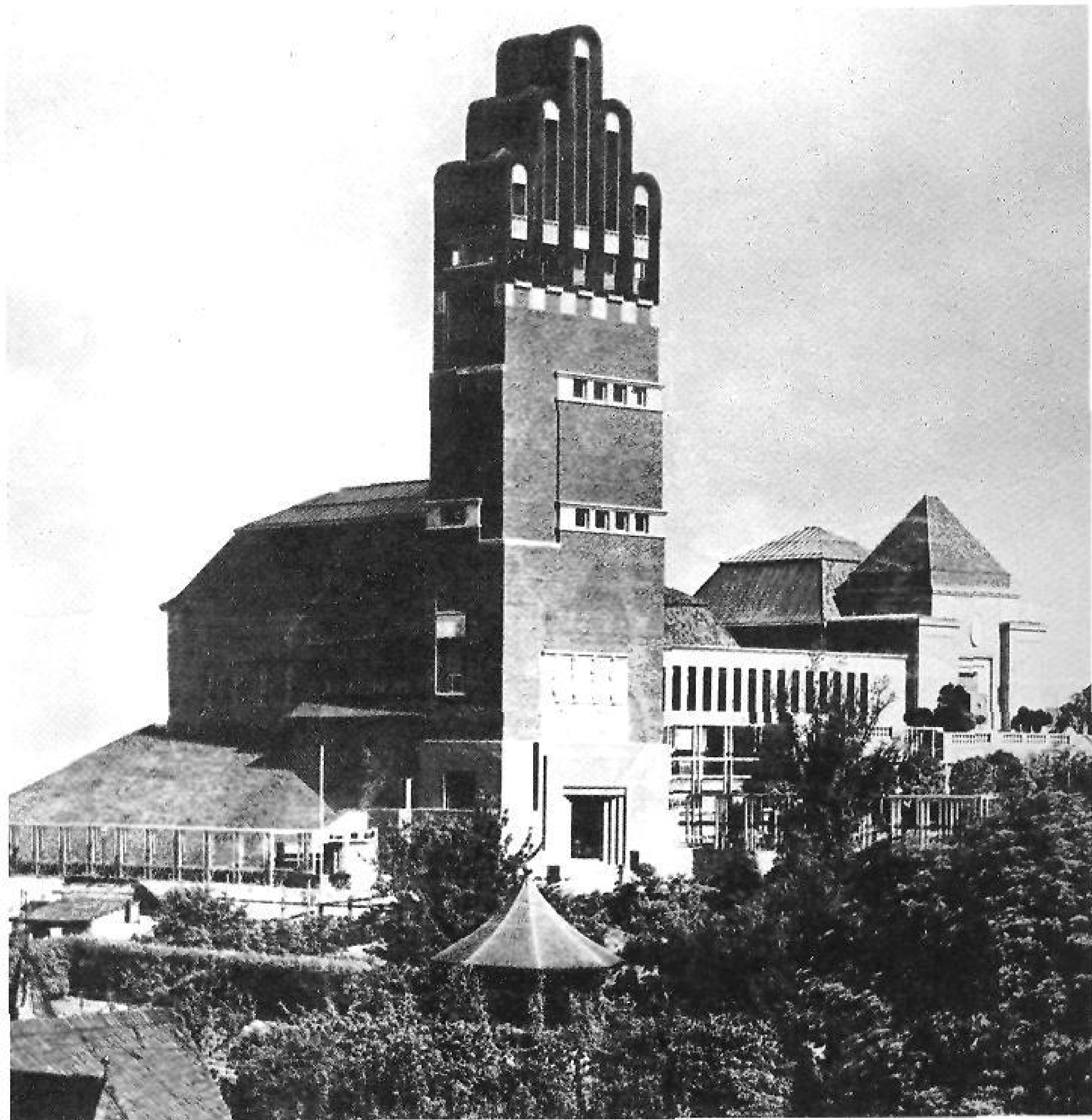
On the other side of the world, several disillusioned students at Tokyo Imperial University boldly rejected the traditional architecture of their country in 1920 and formed the Japanese Secession, which took much of their initial inspiration from European Expressionism. Some of their radical (in Oriental terms) projects could be said to have an affinity with Art Deco as well, such as Mamoru Yamada's Central Telegraph Office in Tokyo (1926), with its elliptical arches and overall futurist bent, and later buildings like Tetsuo Yoshida's General Post Office in Tokyo (1931), a massive box with a decidedly Modernist aspect.

The architecture of ancient Egypt was one of several sources of Art Deco design, but in fact that culture held a perennial appeal for Europeans, with Egyptian Revival buildings appearing from the Renaissance onwards. The 1828 engraving of London's Egyptian Hall, Piccadilly (*left*) dates from a spate of 'Egyptomania' spurred on by Napoleon's North African battles.

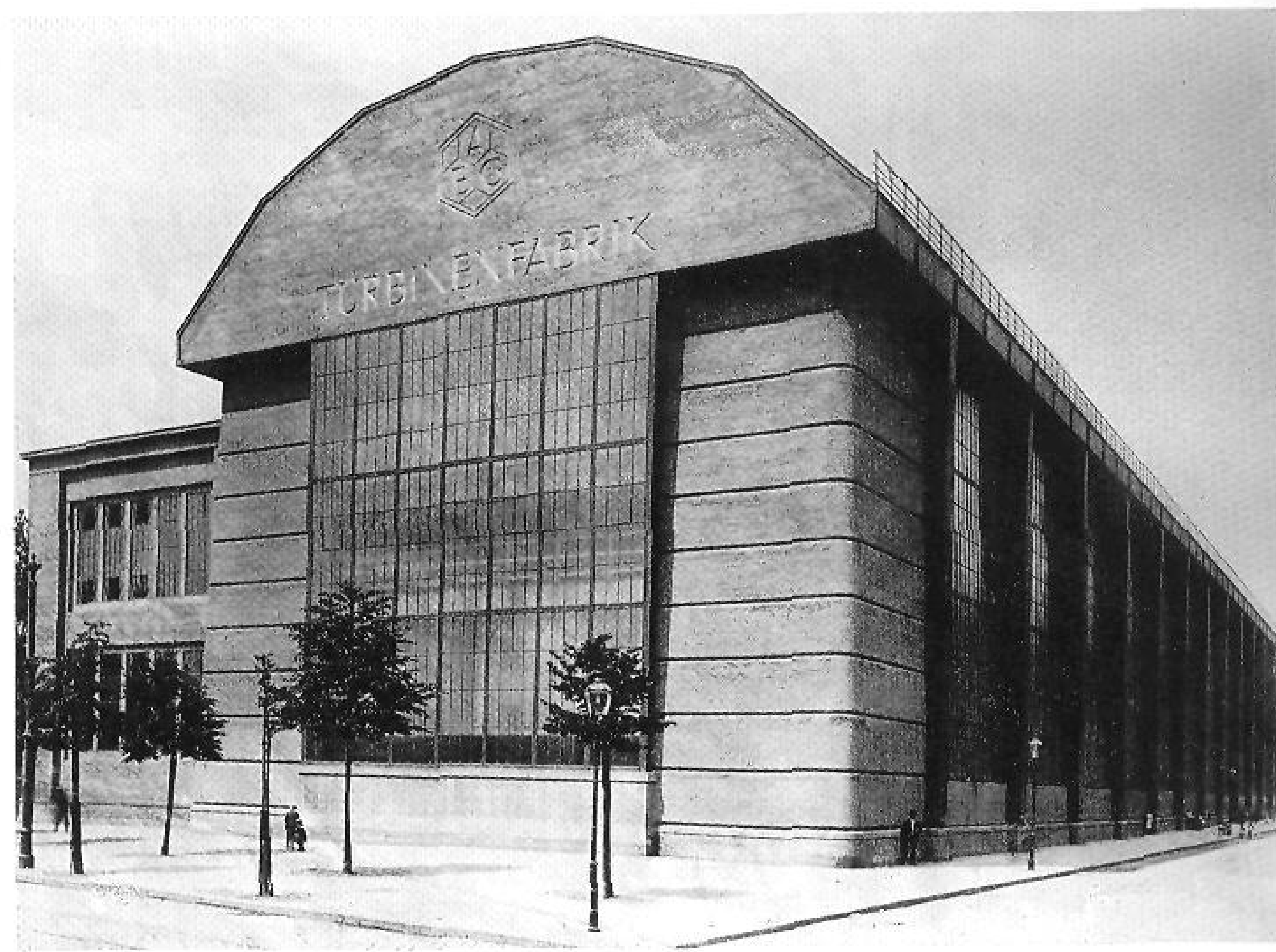
At the 1893 World Columbian Exposition in Chicago, the 'Golden Door' to Louis Sullivan's Transportation Building (*below*) was a dazzling, eccentric and indeed modern statement among a sea of sombre Neoclassical pavilions.

The rigid rectilinearity of Frank Lloyd Wright's 1904 Larkin Administration Building in Buffalo (*opposite above left*) was softened by Richard W. Bock's terracotta ornament, which included stylized floral designs on the piers. This monumental brick office building (demolished in 1949-50) helped set the stage for many Art Deco-era workplaces.

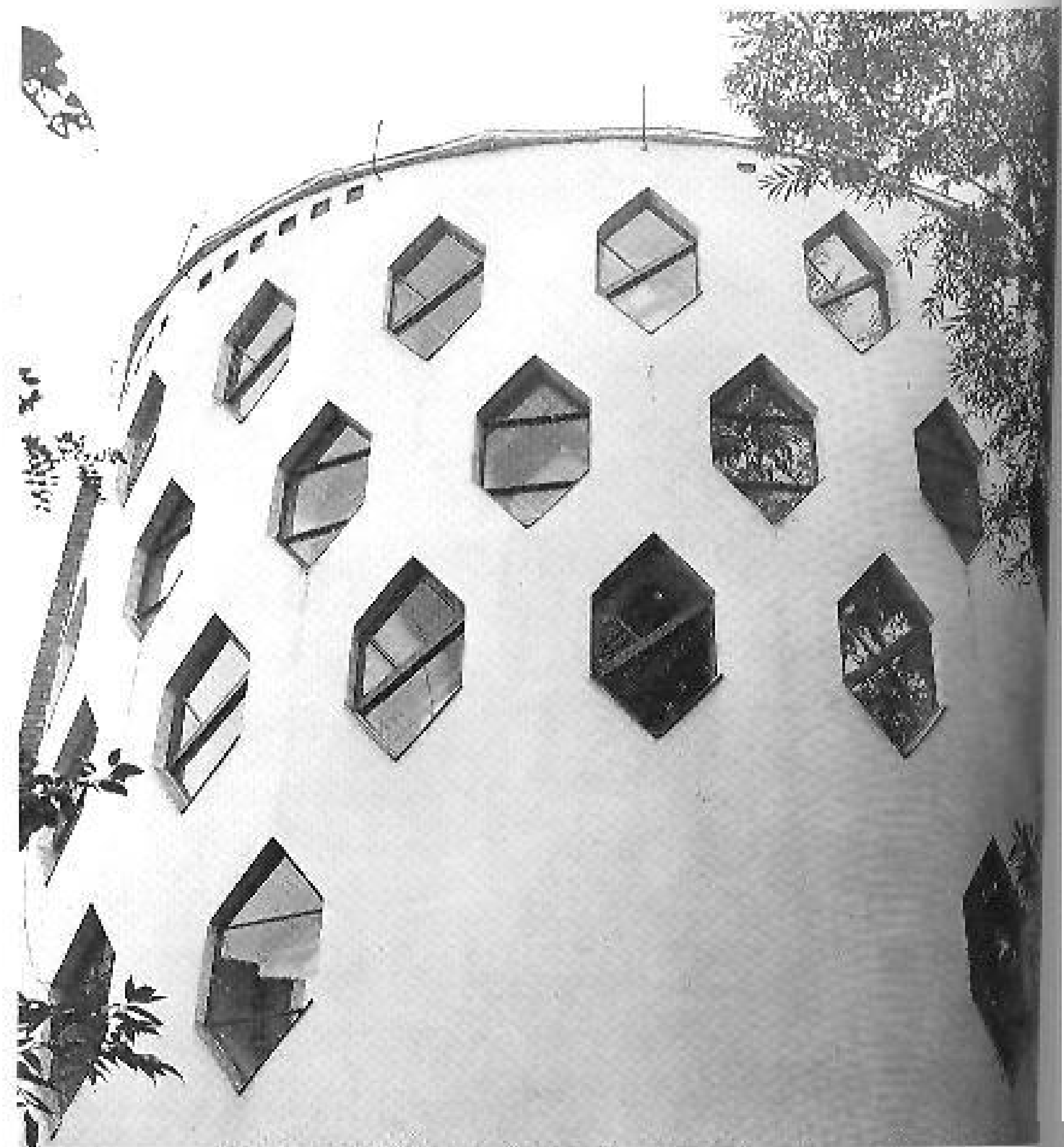
More than any other British buildings – and much like those of the Viennese Secessionists – the creations of Scotsman Charles Rennie Mackintosh looked forward to aspects of Art Deco architecture; for instance, the ornamental metalwork, window grids and stepped segments seen in the west view of his 1898-1907 Glasgow School of Art (*opposite above right*).

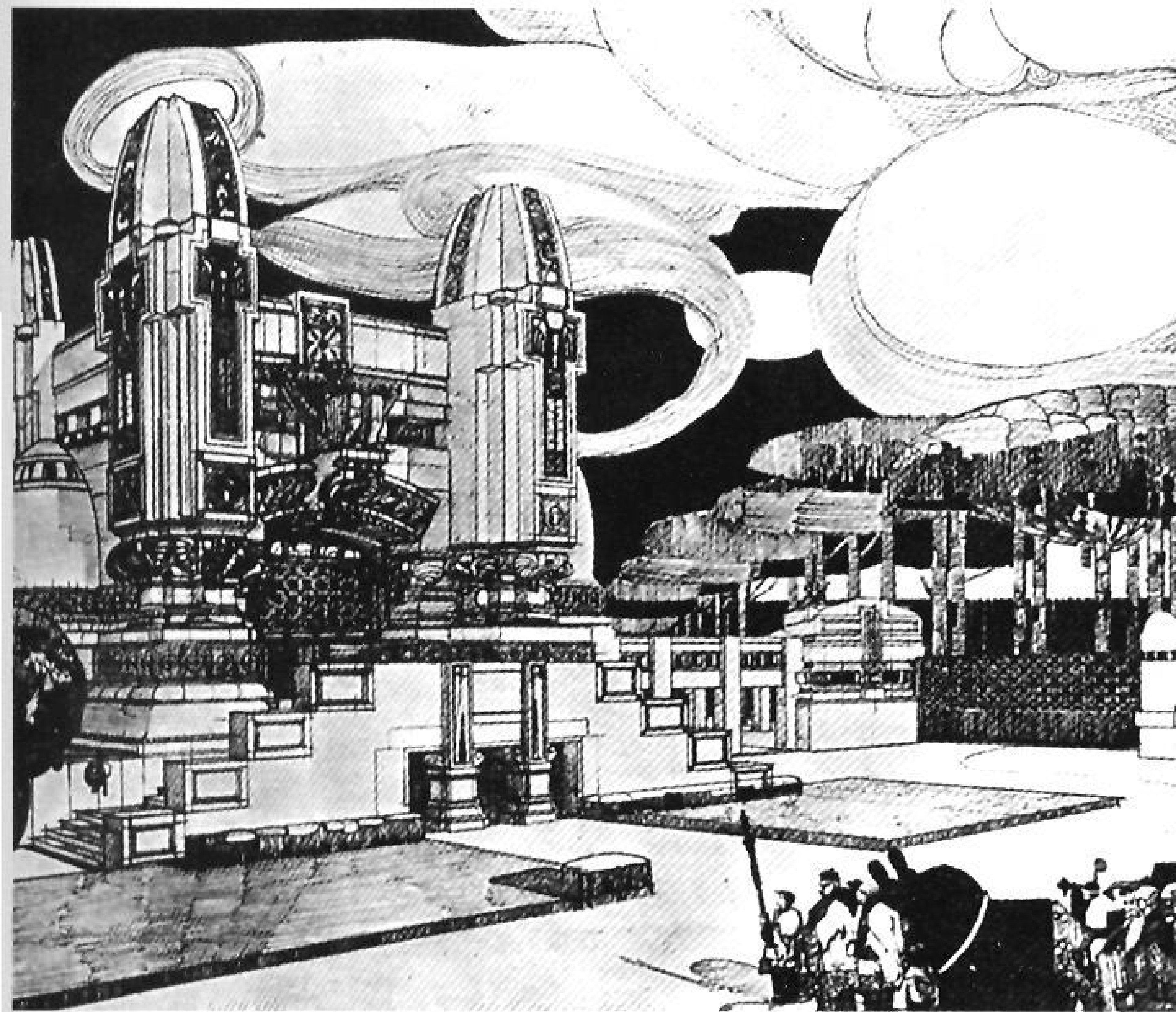


A striking vertical form characterized Joseph Maria Olbrich's 1907 Hochzeitsturm (Wedding Tower) (*right*) in Darmstadt. The five-part stepped roof of the tower was apparently meant to signify a hand, but it uncannily foreshadows later New York skyscrapers.



Several significant early twentieth-century factories in eastern Europe, such as Peter Behrens' 1908-9 A.E.G. turbine factory in Berlin (*right*) and Hans Poelzig's 1912 chemical plant (*opposite below*) in Luban near Posen (now Poznań, Poland), had a strong bearing on later industrial architecture. No longer were such structures faceless masses of brick, glass and metal.





One of Russia's most significant architects in the nineteen-twenties and thirties was Konstantin Melnikov, whose 1927 Moscow house (*above*), its double-cylindrical form dotted with some sixty hexagonal windows, was a striking Modernist structure.

Among the immediate precursors and contemporaries of Art Deco architecture were some striking European designs including the three domed structures on this page: Bruno Taut's Glass Pavilion at the Cologne Werkbund exhibition of 1914 (*top*); the 1917-21 Einstein Tower at Potsdam (*above left*) by Erich Mendelsohn; and Antonio Sant'Elia's 1912 design for Monza Cemetery (*left*).

International Expositions

As American industrial designer Walter Dorwin Teague simply and succinctly put it in his 1940 book, *Design This Day*: 'Because of its impermanence and legitimately bizarre character, exposition design has served as an experimental field for new structural forms and expressions'. Teague was in fact referring specifically to American fairs of the mid to late nineteen-thirties with their preponderance of Streamline Moderne pavilions, but the same words could more or less be applied to all the major international exhibitions of the twenties and thirties, including the 1925 Paris Exposition, the premier showcase of Art Deco. Not only did this fair – the word seems inadequate for such a spectacle of light, colour, design and good (and even some bad) taste – spotlight the achievements of contemporary design and industry, it limited itself to the present, even projecting a bit into the future, but officially forbidding any blatant historicizing, celebrating or replicating of the past. Its influential, much-publicized architecture mostly comprised structures that later came to be known as Art Deco, although some examples of Modernism and, notwithstanding the fair's ban, traditional styles were also represented.

1925 Paris Exposition

No preceding world fair was to have quite the impact of the Exposition Internationale des Arts Décoratifs et Industriels Modernes, which lasted from April to October 1925.

The Exposition occupied a huge area in the centre of Paris, and its overall organization was the work of its chief architect, Charles Plumet, and Louis Bonnier, who was in charge of landscaping. The fair's main gate, the Porte d'Honneur, next to the Grand Palais, led one through the fair across the Seine, via the Pont Alexandre III and down the long Esplanade to the Place des Invalides. Along the route, including sites on the bridge and at moorings in the Seine, were over 130 individual showplaces of artistic, commercial and industrial establishments, with hundreds more individual artists, manufacturers and commercial establishments displaying their wares in the massive Grand Palais. Over twenty nations participated – not, however, Germany (which had not been invited) and the United States (which declined the invitation) – though a few did not build entire pavilions for their displays. To the west, even the Eiffel Tower was dressed up at night for the spectacle, its frame clad in a Moderne illuminated display sponsored by Citroën (whose logo appeared on one of the nine changing patterns comprising the six-coloured light show).

Opposite

Hall of Science, A Century of Progress exhibition, Chicago, 1933-34.

In terms of being an influence on later design and architecture, the 1925 fair is unsurpassed in this century as a single event. Although celebrating a Gallic style which had by then reached its peak in France, thanks to the various specialist and general magazines which covered it, the fair served as a superb, all-encompassing, but sadly temporary introduction-cum-review to architects, designers and members of the public the world over. Its ephemeral nature notwithstanding, the bulk of the major pavilions were constructed of reinforced concrete over wooden frames, with a multitude of glass (clear and stained, decorative and functional), plaster and wrought-iron components, notably by Edgar Brandt, as well as the occasional modern material, such as plastic.

The most significant Art Deco structures were, not surprisingly, French in design (as discussed earlier, the building which was to have the most far-reaching effect of all those in the fair was Le Corbusier's L'Esprit Nouveau, which was decidedly not Art Deco). These included the pavilions of the Parisian department stores, Galeries Lafayette, Le Bon Marché, Louvre and Le Printemps; those of *ensembliers* Ruhlmann and Süe et Mare; the two pavilions of Sèvres; and Robert Mallet-Stevens' Pavillon du Tourisme. Other domestic pavilions of note were those of the French diamond and precious-stone dealers, book publishers Crès & Cie, glassmaker René Lalique and Christofle-Baccarat.

The three principal gateways (out of thirteen) were the Porte d'Honneur, the Porte d'Orsay and the Porte de la Concorde, all stunning, towering achievements. Pierre Patout's ten massive square columns at the Place de la Concorde encircled a bank of trees and Louis Dejean's welcoming statue of an open-armed, gilt-bronzed woman set on a socle with bas-relief carving by the Martel twins, Jan and Joël. The Porte d'Orsay entrance was designed by Louis Boileau and comprised a huge blue and gold nameplate-banner on a densely patterned Art Deco ground at the front, an allegorical fresco by Louis Voguet, depicting 'l'Art Décoratif', on the back. The sides of the high gate were fashioned as stylized scrolling fountains, a leitmotif of the fair. Indeed, the bubbling fountain was the theme of the main entrance at the Porte d'Honneur, by Henri Favier and André Ventre, with sculpture by Henri Navarre and glass by Lalique. Four pairs of columns, each column surmounted by a stylized fountain, each pair connected by a figurative frieze over the pedestrian gate, flanked the roadway, and the pairs were stepped back and conjoined to the next gate by ironwork grilles by Edgar Brandt, again with a fountain motif.

Beginning with Primavera, established by Printemps in 1913, the four above-named Parisian department stores had set up design ateliers in the dozen years preceding the Exposition. The pavilions were arresting, extravagant and, above all, inviting – their *raison d'être*, after all, was to get the visitors through their doors to see the room settings, artworks and other objects that were on view. The Primavera pavilion, designed by Sauvage & Vybo, was the most striking of all, though less for its decoration than its simple mushroom shape. Its ceramic-clad mound of a roof was encrusted

exterior was dominated by giant sunburst motifs, reminiscent of the La Maîtrise pavilion at the Paris 1925 fair. But whereas Jacques Gruber's ornate orb was of gilt-bronze and coloured glass, the less exuberant, yet nobler Chicago suns were of monochromatic metal. Also outstanding was the Administration Building, by the same trio of Chicago architects, a massive rectangular building featuring a huge allegorical figure on either side. Indeed, allegorical bas-relief sculptures and paintings abounded at the fair, representing such forces as atomic energy, electricity and light (more 'representative' was the Havoline Thermometer Building, by Alfonso Iannelli, in the shape of a giant stepped thermometer). The sculptor Leo Friedlander created four huge Streamline Moderne gypsum pylons with figures at the bottom symbolizing the four basic elements; these were at the entrance to the Hall of Science pavilion, which was designed by Raymond M. Hood. In front of the Electrical Building (also by Hood) were the two pylons comprising sculptor Lee Lawrie's Water Gate, the bas-reliefs on one representing atomic energy, on the other stellar energy.

An integral element of the Chicago fair was its colours. The arrangement of the buildings may have been somewhat scattered and unpremeditated, but its palette was well thought out. Indeed, Joseph Urban, the Austrian-born architect, was entrusted with the fair's colour coordination, and he employed 23 shades in an effort to harmonize the 424-acre area. Each structure contained three to four colours (the Administration Building's were white, grey, and light and dark blue, with red trim), and surrounding elements – flagstaffs, kiosks and lamp-posts – were rendered in complementary shades. If the look by day was striking, the nocturnal effect was dazzling, since Urban employed state-of-the-art lighting (including, for the first time, neon tubing) to enhance the pavilions.

The 1938 Empire Exhibition in Glasgow was a huge success; despite trying weather conditions, it was attended by over thirteen million people. This postcard detail amusingly contrasts Thomas Tait's starkly Moderne all-metal Tower of Empire with a quaint country village.

Other Fairs of the Nineteen-Thirties

Chicago's aesthetic message proclaiming the union of science and industry was heard – and in many cases repeated – by other fair organizers in the nineteen-thirties. Though not worldwide in scope, the 1936 Texas Centennial Exposition in Dallas included pavilions (many of which still stand) of the monumental Moderne type that defined Chicago 1933-34 (the architecture was called 'Classic-Modern'), and indeed some of the same architects worked at both fairs. Massive allegorical figures adorned long, sometimes multi-cubed, low structures highlighted with colour, such as the Livestock Building (designed by the fair's coordinator, Dallas architect George L. Dahl), which was punctuated with zigzag patterns.

The Frontier Centennial Exposition, held in nearby Fort Worth at the same time, featured a variety of Western, Mayan and Native American subjects in the Moderne mode on its three principal structures, the Will Rogers Memorial Auditorium, Coliseum and Tower. These included stylized scrolls, wings and blossoms, stepped and geometric segments, rodeo riders and, on polychromed tile mosaic friezes along the entablatures, the sagas of the founding and industrial development of the West (on the auditorium) and of the men and women of the Southwest (on the coliseum).

Paris 1937 Exposition

Several major expositions took place in Europe in the mid to late nineteen-thirties, including Brussels (1935), yet again Paris (1937) and Glasgow (1938). On the whole, these three fairs broke no new ground in architecture or design.

The two dominant pavilions of the Paris exhibition were the facing monumental stone towers of Germany and the U.S.S.R.. The former was surmounted by a golden eagle, holding between its talons a wreath encircling a swastika, and the latter – a stepped structure – topped by a huge statue of a young man and woman wielding a hammer and sickle.

One display harked back nostalgically to 1925, the Pavillon du Tourisme designed by P. Sardou as a rectilinear tower emerging from an L-shaped structure with curving sides, all in shades of peach and cream. The tower made an obvious reference to Robert Mallet-Stevens' Tourism Pavilion a dozen years earlier (as did in fact Thomas Tait's all-metal Tower of Empire at the 1938 Empire Exhibition in Glasgow). The Musée d'Art Moderne and facing Palais de Chaillot at Trocadéro, both extant, were striking colonnaded rectilinear piles whose apparent severity was mitigated by the wealth of classical bas-reliefs on their façades and statuary around their perimeters.

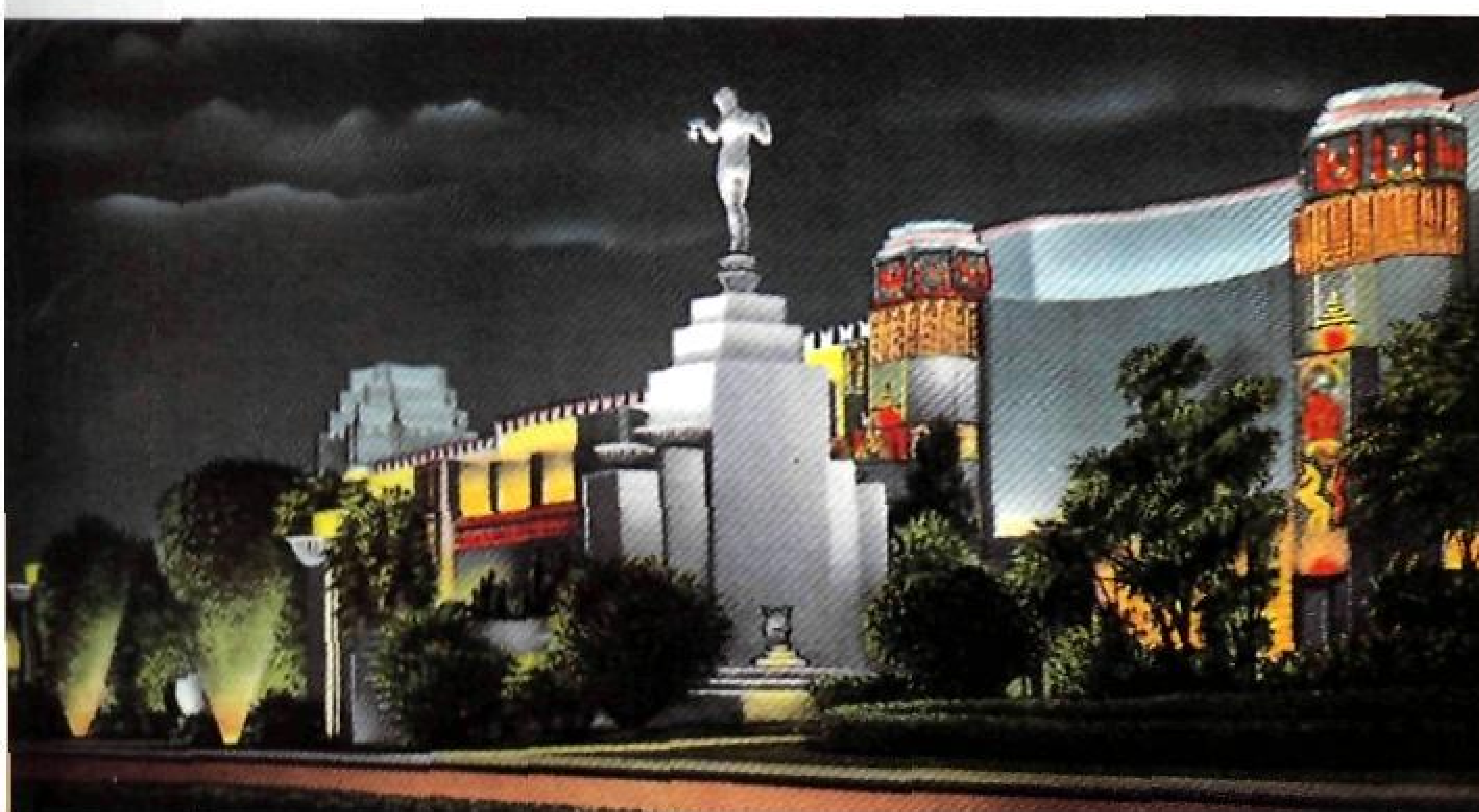
San Francisco and New York Fairs, 1939

The final pre-war exhibitions in the United States were the 1939 Golden Gate International Exposition in San Francisco and the 1939-40 New York World Fair.

The West Coast fair, which opened on 12 February and closed on 2 December 1939, was entirely purpose-built on 'Treasure Island', lagoon-dotted land that had been reclaimed from the bay. Its *raison d'être* was to celebrate the area and, more importantly, the openings of the Golden Gate Bridge and the San Francisco-Oakland Bay Bridge, 'the world's greatest spans of steel', as a Treasure Island brochure boasted. Twenty-eight foreign countries took part in the fair, along with fifteen states and numerous commercial establishments and regional organizations.

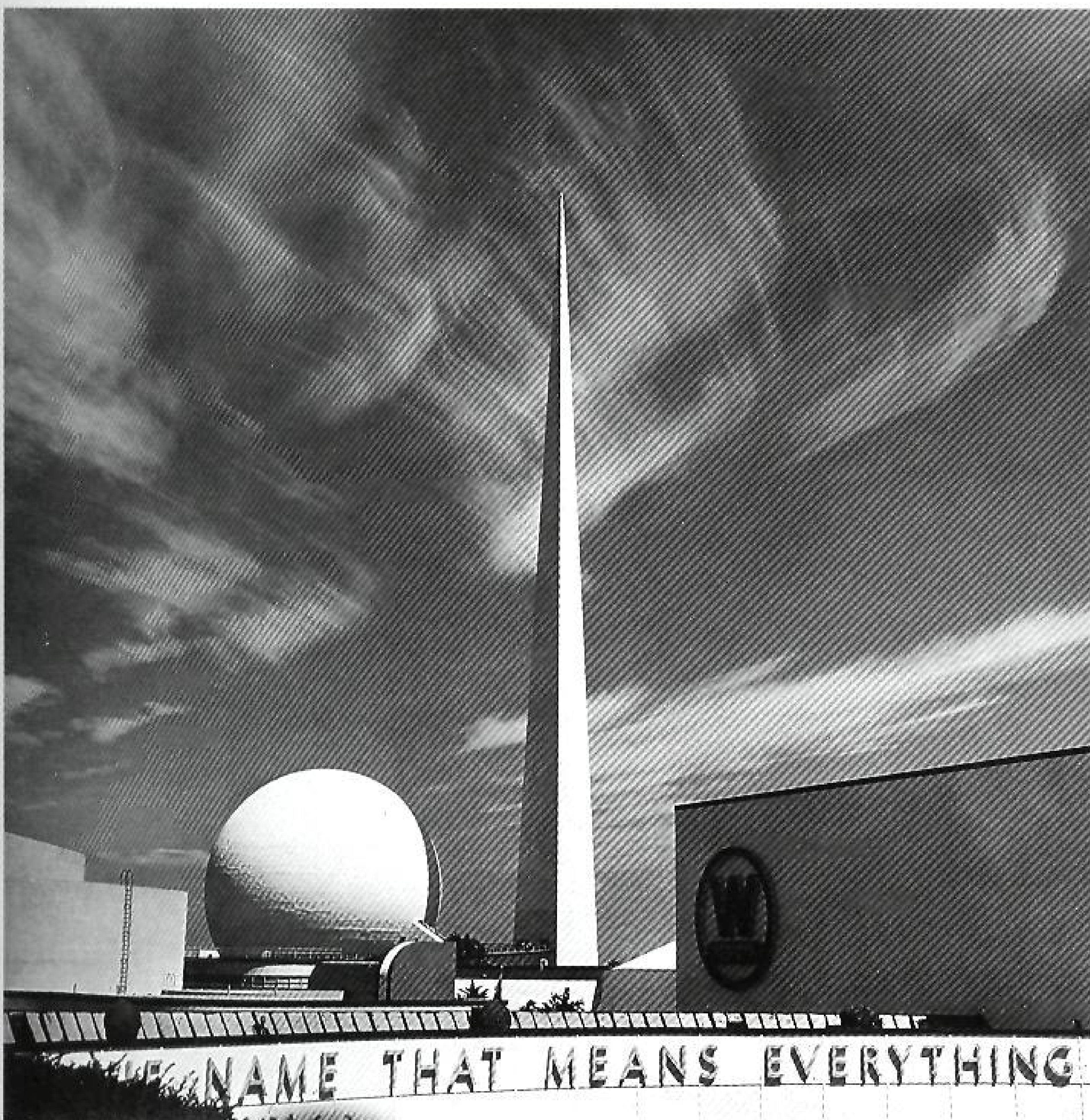
The fair's planning committee comprised, among others, Timothy L. Pflueger, an important West Coast architect whose projects made use of both Art Deco and Modernist elements, with a fair sprinkling of Mayan Revival and Neoclassical thrown in. Its major pavilions, flanking the Courts of the Moon, Pacifica, Seven Seas, Flowers and Reflections, were mostly elaborate stepped structures, decorated with and set amid stylish sculptures and murals by West Coast artists. The smaller South and Central American displays were tasteful, up-to-date interpretations of traditional forms, including the Mayan-inspired Guatemala Pavilion, the Peru Pavilion, modelled after an Incan temple, and Ecuador's pylon-like display, with a huge sun over the door and geometric designs along the top and bottom. As at the Chicago fair six years earlier, light and colour were important aspects of the Golden Gate Exposition, only this time the structures were generally white and the colour was provided at night by the huge array of multi-hued lights (for example, the principal colour of the Court of the

A Century of Progress, the international exposition that opened in 1933 in Chicago, marked the centenary of the founding of the Midwestern city and had as its theme 'Science in Industry'. Its massive pavilions combined Neoclassical and Streamline Moderne elements. One side of the circular court of Raymond M. Hood's Electrical Building (*left*) featured a

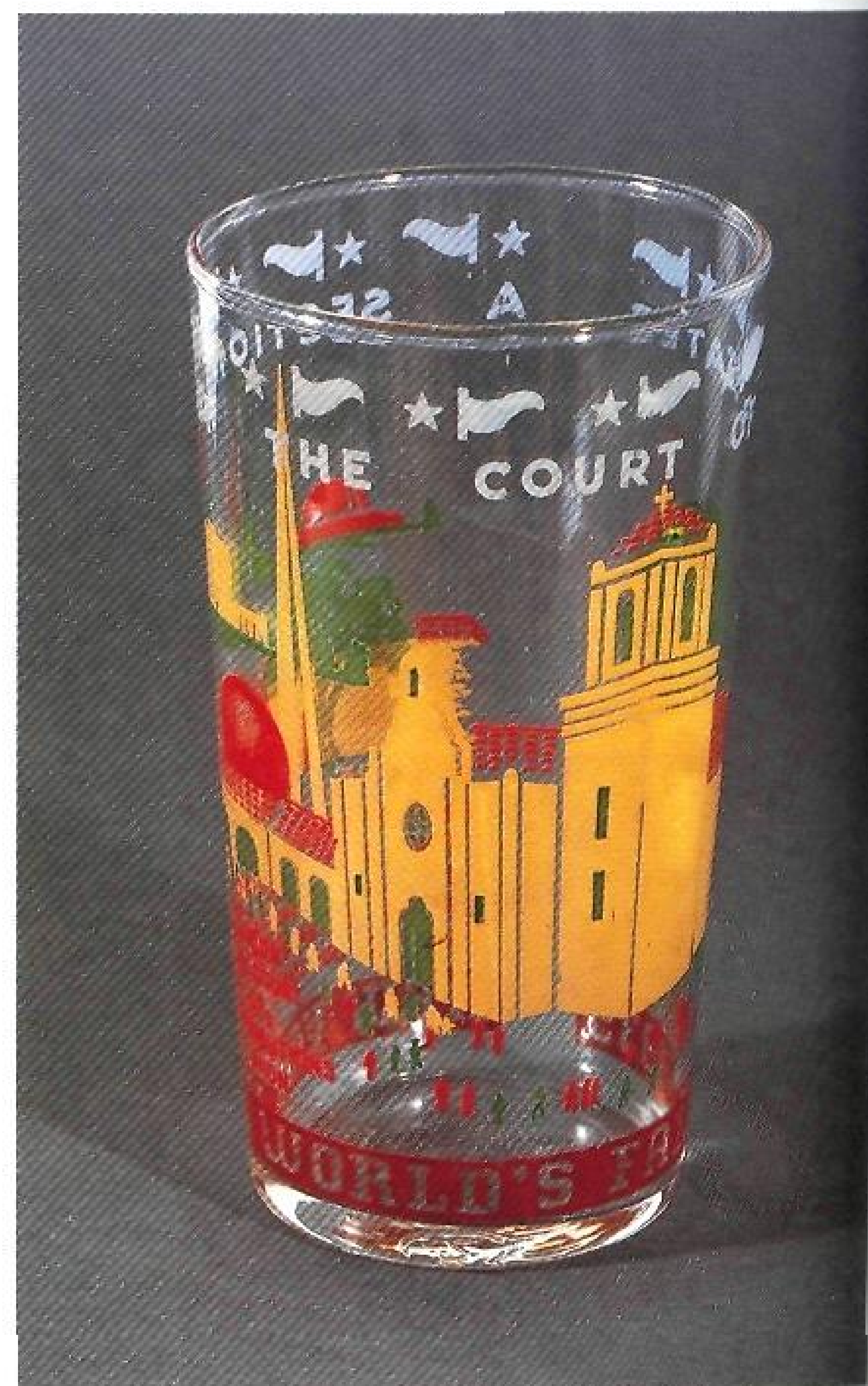


International expositions throughout Europe and North America proliferated in the nineteen-thirties. Their pavilions, ancillary arcades and fun fairs received millions of visitors, who sent postcards (usually black-and-white images hand-tinted with garish hues and then mass-manufactured) by the thousands to family and friends. Three such images appear on this page: the Palace of Mines at the 1930 Liège International Exposition (*left*); the Palace of Electricity at the same Belgian fair (*left centre*); and the Court of the Moon at the 1939 Golden Gate International Exposition, San Francisco (*left below*), the allegorical figure atop the Fountain of Phantom Arches representing the Evening Star.

The aim of the 1937 Paris Exposition Internationale des Arts et des Techniques Appliqués à la Vie Moderne was to show the compatibility of beauty and utility. The two dominant pavilions were the overtly political facing monumental stone towers of the U.S.S.R. and of Germany (*opposite above left*), designed by Albert Speer (with French architects Courrèges, Coudert, Jankowski & Hugonenq). Another turreted structure, the Pavillon du Tourisme designed by P. Sardou (*opposite above right*), paid homage to Robert Mallet-Stevens' Tourism Pavilion at the 1925 Paris Exposition. The white-washed severity of the fair's Musée d'Art Moderne (*opposite below*) was mitigated by the wealth of classical bas-reliefs on its façade and statuary around it; its architects were J.C. Dondel, A. Aubert, P. Viard & D. Dastugue.



The 1939-40 World Fair in New York, 'Building the World of Tomorrow', was an ambitious, optimistic undertaking, with many noted architects and industrial designers participating. The fair's 'Theme Center' comprised a monumental obelisk and sphere – loftily named the Trylon (from triangular pylon) and Perisphere (*left*) – designed by the architects Harrison & Fouilhoux. The two structures were depicted on a host of cheap souvenirs that could be bought at the exhibition, from plastic salt and pepper shakers (*below left*) to a drinking glass (*below*).



Some of the liveliest structures of the New York World Fair were situated in the Food Zone. The stylized fountain motifs topping the Schaefer Center (*right below*) by Eggers & Higgin, a restaurant-bar complex, came out of the 1925 Paris Exposition, and the circular façade of Food Building No. 2 (*right above*), by Del Gaudio, Aspinwall & Simpson, was covered with a red and white mural by Pierre Bourdelle that depicted the 'housing of products destined to human consumption'. An architectural rendering of its theme, Shreve, Lamb & Harmon's Glass Center Building (*right centre*) was fashioned almost entirely out of glass.

Art Deco houses of the Streamline Moderne variety appeared across the continental United States in the nineteen-thirties. There were also homes with Modernist bents featuring colour or some other added decoration and, on the West Coast, some showing Mayan or Aztec influence. Many made use of new materials, such as brushed aluminium and glass bricks.

In Midwestern Des Moines, the Streamline Moderne house built for Earl Butler (designed by the owner and George Kraetsch) was a dramatic split-level, poured-concrete structure. A chequerboard theme ran through the mid nineteen-thirties home of Mr and Mrs Lloyd H. Buhs of Detroit, which was designed by Hugh T. Keyes. Intended as an exemplar of Detroit-made materials and talent, the flat-roofed, white-washed, curved and streamlined structure was sponsored by the Detroit Board of Commerce.

Throughout the States, smart Moderne homes, mostly in concrete or stucco, were built, many in newly created suburbs. Simple Cubist shapes enhanced with coloured stripes characterized father and daughter Charles M. and Zoe Davis's one-bedroom mid nineteen-thirties 'Aparthomes' in Fort Worth, whose design was subsequently copied in several states. A unique home in that city was Fred W. Murphree's 1941 residence for the Martin E. Robin family, with its fluted pilasters, stepped sections and ornamental wrought-ironwork. Much grander were Charles M. Davis's own 1937 home, by Robert P. Woltz, and William D. Wenthoff's residence in Tulsa (1935), with its upper-level nautical vignette: a porthole window looking out on to a curved railing. Making a different travel analogy was the Richard Mandel House in Mount Kisco, New York (Edward Durell Stone, 1933-34), which one writer likened to 'a giant airplane' (actually, it had a Modernist bent, and resembled an aerodrome more than an aeroplane).

Decorative patterns in coloured and plain brickwork marked some Art Deco American homes, such as a residence in St. Paul Street, Baltimore, designed by John Ahlers in 1937. There was a ribbon moulding around the house's L-shape, but this was met at the corners by fluted verticals; in addition, a bold geometric pattern was created in several places with the white bricks. Also in Maryland were two quintessential Streamline Moderne houses, one with tan brick finish (in Hyattsville), the other stucco (in Camp Springs); both (and no doubt dozens more throughout America) were constructed following mail-order plans from the Garlinghouse Plan Service of Topeka, Kansas (these two date from 1948, but they could easily have been built a decade earlier).

California, especially the Los Angeles area, was rich in Art Deco homes, some built for Hollywood stars, for whom the style held much appeal. A Moderne home in Santa Monica was created *c.*1929 by MGM art director Cedric Gibbons (1893-1960) for himself and his actress wife, Dolores del Rio. The stucco-sheathed concrete structure, termed by a 1931 movie magazine as 'modernistic in the extreme', had a flat roof, narrow windows and black marble steps leading up to a polished metal door, which was framed by a rectangular arch of diminishing setback sections; the front gate was of polished rolled steel.

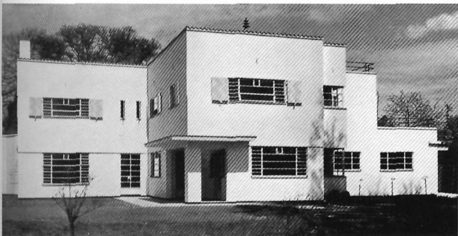
The Rue Mallet-Stevens in Auteuil comprised six private villas designed by Robert Mallet-Stevens in 1926-27. The structures were essentially Cubist, but enhanced with coloured and curved elements. For example, the house-cum-studio (*above left*) of the twin sculptors, Jan and Joël Martel, featured red *pâte-de-verre* tiles sheathing the ceiling of the terrace on top of a cylindrical tower, which contained a red-highlighted leaded-glass window by Louis Barillet. Next to the Martel home, Mme Reifenberg's villa (*opposite*) also included an elongated Barillet window, but this with a simple monochromatic palette.

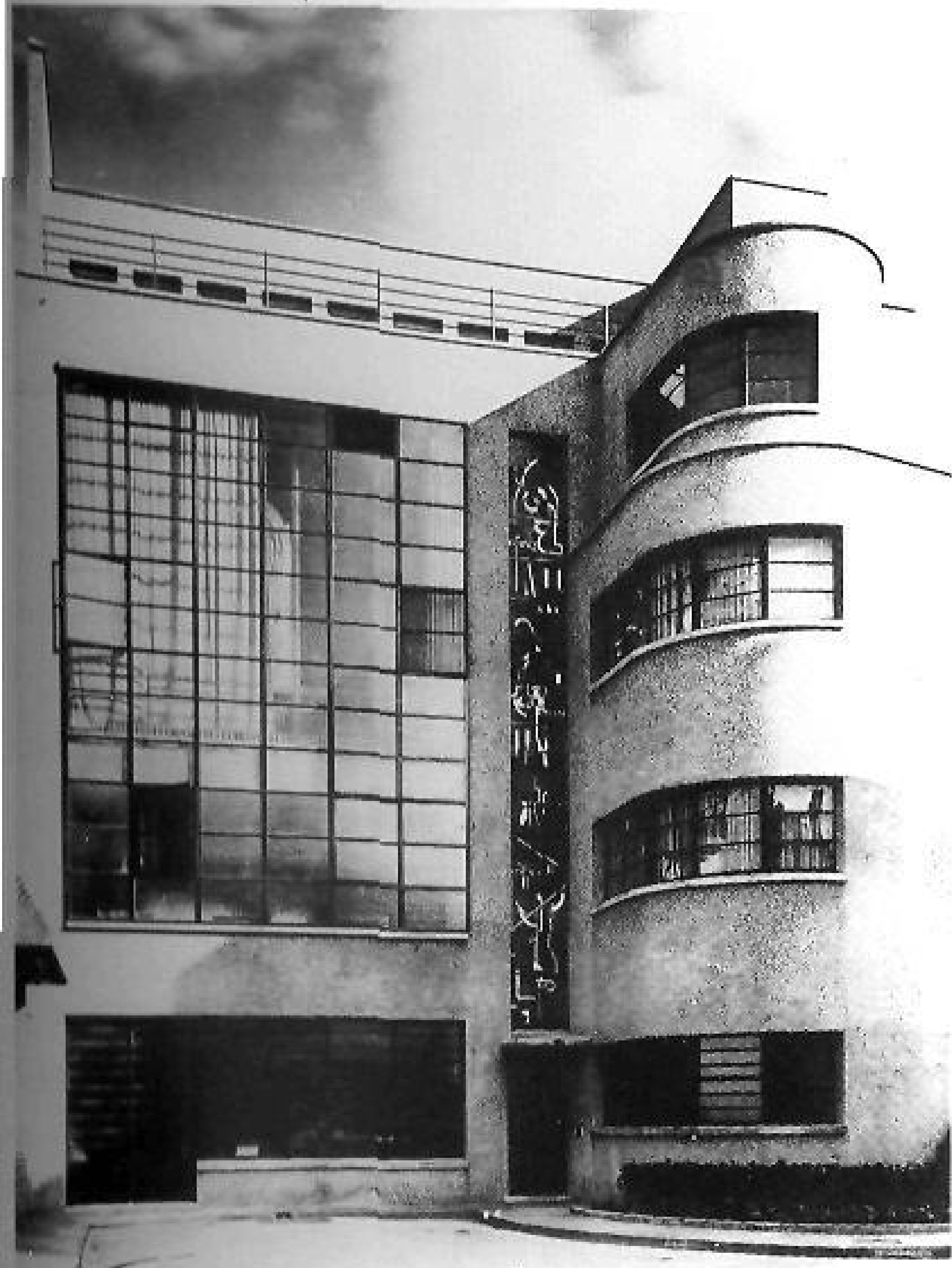
Late in his career, French architect Henri Sauvage (1873-1932) planned several highly dramatic pyramidal structures that were never realized, including the housing projects (*above*) envisioned for the banks of the Seine.

The 1935-36 E.E. Butler House (*opposite above*) in Des Moines, Iowa, designed by owner Earl Butler and George Kraetsch of Kraetsch & Kraetsch, was one of the finest Streamline Moderne houses in North America. Its successful combination of straight lines and curves, stepped segments and decorative horizontal mouldings, as well as its setting on a gentle slope of land, made it an outstanding example of residential architecture of the time. No less handsome was this Moderne house (*opposite below*) on the Caribbean island of Puerto Rico.

Variations of the thirties Moderne house – a sleek, white-washed combination of curves and right angles – appeared in Europe and North America. The plain, utilitarian house (*above*) designed by Howe & Lescaze for Frederick N. Field is situated on the top of a Connecticut hill, while the locale of the comparatively simple and inexpensive home (*right*) by Farkas Molnár is a Budapest hillside.

In *c.*1931, London architect P.D. Hepworth designed a house in Kent (*below*) with glazed roof garden. Its creamy-white, angular form was enlivened by red and orange shutters with a zigzag motif; other polychrome touches included green tile copings and yellow window frames.





The 1932 Maison Barillet (*left*), located at 15 Square Vergennes in the 15th *arrondissement*, was another of architect Robert Mallet-Stevens' domestic projects in the French capital. Its elongated leaded-glass window was created by Louis Barillet, the artist-occupant who was also responsible for the decorated windows in the same architect's villas in the Rue Mallet-Stevens, Auteuil.

A common sight in North Africa in the twenties and thirties was the cubic and cylindrical white-washed high-rise apartment building, similar to those in France. This modern apartment house (*above left*) in Oran, Algeria, could have been transplanted from Paris. To the east, in the Cairo suburb of Gezira Island, this luxurious Streamline Moderne apartment house with nautical balconies (*above*) dates from the late nineteen-thirties; the extended caption on the 1937 photograph was entitled 'Oldest Country Shows Newest Architecture'.

The candy-coloured tones of many of Miami Beach's hotels are known to change relatively frequently, but their decorative motifs – racing stripes, stepped parapets, floral panels and porthole windows – stay the same. Among some of the resort town's jewels are four beautifully restored hotels on Ocean Drive: the Clevelander (*opposite above left*), designed by Albert Anis in 1938; the 1937 Park Central (*opposite above right*) and the 1932 Crescent (*opposite below right* and also on page 83), both by Henry Hohauser; and Roy F. France's 1936 Cavalier (*opposite below left*). Collins Avenue is the location of Henry Hohauser's vividly painted Carlton (*right below*), built in 1937, as well as the Hotel del Caribe (*right above*), which dates from 1948 but was nonetheless designed by MacKay & Gibbs in Art Deco style.

Unlike the case of Paris, where the Art Deco-decorated structures were largely *style moderne* by virtue of their ornament and not their forms (which blended in with the earlier Beaux-Arts buildings often surrounding them), in New York many apartment houses were soaring, stepped, turreted and terraced masses that stood out among their shorter neighbours. On Central Park West, massive twin-towered structures rose up in the early nineteen-thirties, two of them Art Deco masterworks from the office of Irwin Chanin: the Century Apartments (1931) and the Majestic Apartments (1930), whose upper sections were exemplary Machine Age essays with their interlocking verticals and horizontals, bands of different coloured brick and fin-like extensions. These, along with the twin-turreted Eldorado (Margon & Holder, 1931) and Emery Roth's 1931 Ardsley (which shows a Mayan influence), are arguably Manhattan's finest Art Deco apartment houses – exuberant, romantic, evocative and, seen from opposite Central Park, breathtaking.

Brightly coloured elements appeared on Manhattan high-rise apartments. At 22nd Street and Second Avenue is a 'Pueblo Deco' structure, a stepped brick mass embellished with blue and yellow terracotta. The tower of the Town House on East 38th Street (Bowden & Russell, 1930) is punctuated with polychrome terracotta, and on East 63rd Street the entrance to The Lowell (Henry S. Churchill and Herbert Lippmann, 1926) features Bertram Hartman's multi-coloured mosaic of an abstract urban landscape.

Art Deco structures were built in the Washington Heights and Inwood sections of northern Manhattan, such as H.I. Feldman's Fort Wadsworth Towers (1928) and Wadsworth Manor (1929), the latter an exuberant exercise in terracotta and brick, with distinctive triangular piers and patterned brickwork borrowed from Dutch Expressionism. Payson and Seaman Avenues contain many late nineteen-twenties and early thirties gems, their entrances decorated with Streamline Moderne, stylized floral and geometric patterns in stone and terracotta.

The other New York boroughs also reaped the benefits of the building boom; Art Deco apartments went up along Ocean Parkway, Brooklyn, and especially in the Grand Concourse-West Bronx area, where whole groupings of Art Deco buildings appeared in the nineteen-thirties, including the sprawling 283-unit Noonan Plaza (Horace Ginsbern, 1931). Ginsbern designed over a dozen Art Deco apartment complexes in the area, with other notable structures by Israel L. Crausman, Hyman Feldman, Jacob M. Felson, H. Herbert Lilien and George W. Swiller. These stone masses were embellished with motifs drawn from the full Art Deco repertoire – Mayan, Parisian, Streamline Moderne, Machine Age, Expressionist – and at one time they made up one of the finest Art Deco neighbourhoods in the world to provide their occupants with 'the housing of the future – today'.

The most cohesive, congenial grouping of Art Deco buildings, including apartments, hotels and other structures, rose up from the nineteen-thirties onwards in Miami Beach, Florida. These were largely the work of architects Albert Anis, L. Murray Dixon, Roy F. France, Henry Hohauser and Anton

Skislewicz. Indeed, Miami Beach's well-maintained Art Deco District, which entered the American National Register of Historic Places in 1979, has become one of the prime sites to visit for enthusiasts of the style.

Most of Miami Beach's Art Deco apartment buildings sported names and were flat-roofed, straight- or curved-sided (sometimes both in one), two- or three-storey structures; many of the windows (jalousies were common) featured cantilevered sunshades. There were single buildings as well as matching pairs, either separate facing structures or connected by a centre structure at the back. The decoration on these residences was in general not as plentiful as that on the hotels, but the myriad motifs their designers employed were the same and, collectively, they comprise a rich design litany derived from numerous sources, including French, nautical, high-style New York and indigenous tropical Art Deco. Colour played an integral role, with pink, green, aqua, yellow and other shades used as highlights.

Art Deco apartment buildings appeared in other American cities, on both coasts and in the Midwest and South. In Los Angeles, Sunset Towers (Leland A. Bryant, 1929) boasted an impressive, Manhattan-style stepped silhouette awash with Art Deco motifs. In Washington, D.C., the Kennedy-Warren apartments (Joseph Younger, 1932) featured aluminium spandrels with strong Moderne motifs (somewhat at odds with griffins and other Neoclassical details on its façade). The capital's Majestic apartments (Alvin Aubinoe & Harry L. Edwards, 1937), with their ziggurat pilasters and rounded balconies, were reminiscent of many of the nineteen-thirties Art Deco residences in the Bronx (in fact, some of their standard details were mirror images of those on New York buildings).

In Napier, the rebuilt New Zealand town, low-rise residences such as the white-washed, two-storey Marine Parade Ranui Flats in the Marewa suburb, reminiscent of Miami Beach buildings, were constructed with horizontal striped highlights and decorative motifs. In Australia, the nineteen-thirties Mont St. Clair Flats, in Sydney's Darlinghurst section, comprised a sleek, seven-storey Streamline Moderne structure; except for its brick façade and height, this building, too, was akin to the sleek structures of Miami Beach Deco.

Hotels

In cities especially, the designs of hotels, apartment buildings and even skyscraper office buildings are often all but indistinguishable. In resort areas, however, hotels often take on flight-of-fancy design elements that would be anathema in other types of structures.

There were few Art Deco hotels in Paris, and those extant are fairly undistinguished, like the small, recently renovated Hôtel Parc Montsouris in the 14th *arrondissement*, its façade set with diamond-shaped panels of stylized blossoms. A gleaming Art Deco jewel on the Riviera, however, is the Martinez in Cannes. Smaller Art Deco hotels, with distinctive metalwork and sculptural elements, appeared throughout France, such as the Hôtel du Chalet in Saint-Brevin (Loire-Atlantique), the Hôtel de la Plage in Port-Mer (Ile-et-Vilaine), the Eden in Dinard and the Golf in Saint-Lunaire (Ile-et-Vilaine).

Chapter 5

Public Buildings

In the nineteen-twenties and thirties, especially in the United States, the number of civic, commercial, ecclesiastical and other public structures built in various Art Deco styles – from Mayan Revival to Streamline Moderne, low-rise industrial-design to high-style Parisian – was considerable. In small towns and large cities alike, Art Deco structures rose as offices, factories and restaurants. Many such buildings were built under public agency schemes, such as the Works Progress Administration, started in 1935.

Office Buildings: from Low-rise Masses to Skyscrapers

For many, the quintessential Art Deco building is the soaring New York skyscraper. The appeal of these symbols of a new age and optimism is undeniable, as is their premier place on the roster of Art Deco architecture. The skyscraper as such, however, was not born in twenties Manhattan, but in the Chicago of the eighteen-nineties; nor did it thrive only in the United States. Skyscrapers could be hotels, apartments and department stores, although their most prominent role was as nine-to-five 'cathedrals of commerce'. Vertical masses were not the only kind of large commercial or business structure either: offices could also be housed in low-rise edifices, as they most often were in smaller cities and medium-sized towns throughout Europe, North America, Australia and elsewhere.

Art Deco office buildings were not as commonplace in Europe as in North America, and there were no examples of skyscrapers. In the Hague, J.J.P. Oud's massive Shell Building (1938-42), though verging on functionalism and far from the architect's De Stijl-influenced projects, was marked by Streamline Moderne and decorative elements, notably in the scallop shells amid a sea of geometric motifs above the entrance. The Shell Building (L. Bechmann & Chatenay, 1932) in Paris was significant, too, because its crisp, rectilinear corner design was informed by the style of New York office buildings. The 1933 edifice by Raymond Février in the Rue de Châteaudun showed its New York roots in stepped segments and spandrels. On a seven-storey office building (Alex and Pierre Fournier, 1929) in the Rue Pasquier, once home of the Société Financière Française et Coloniale and now the Bayerische Vereinsbank S.A., the façade was brightened by G. Saupique's stylized animals in coloured marble, enamel and mosaic. In the Rue La Fayette, a fabled phoenix, stylized sunrays and Moderne lettering were incised in amber-hued stone over the entry of the Phénix insurance building (F. Balleyguier, 1932).

Opposite

The sparkling spire of New York's Chrysler Building (William Van Alen, 1928-31), with the 59th-floor chromium nickel-steel eagle gargoyles visible at its foot.

The skyscrapers that best exemplify Art Deco New York are the Chanin, Chrysler and Empire State buildings. The Chanin, at 122 East 42nd Street, dates from 1928-29 and was designed by Sloan & Robertson, with input from owner Irwin S. Chanin. It is a stepped fifty-six storey structure whose lower sections are alive with bronze patterned spandrels, other metal segments and terracotta bas-reliefs. Three storeys above ground level is a rich ten-foot-high band of floral and foliate bas-reliefs, below which are sculpted spandrels, pier caps and more bands whose subjects, including fans, dragons, masks, zigzags and waterfowl, make a heady hotchpotch. The exterior and interior ornament was designed by Jacques L. Delamarre, in collaboration with René Paul Chambellan.

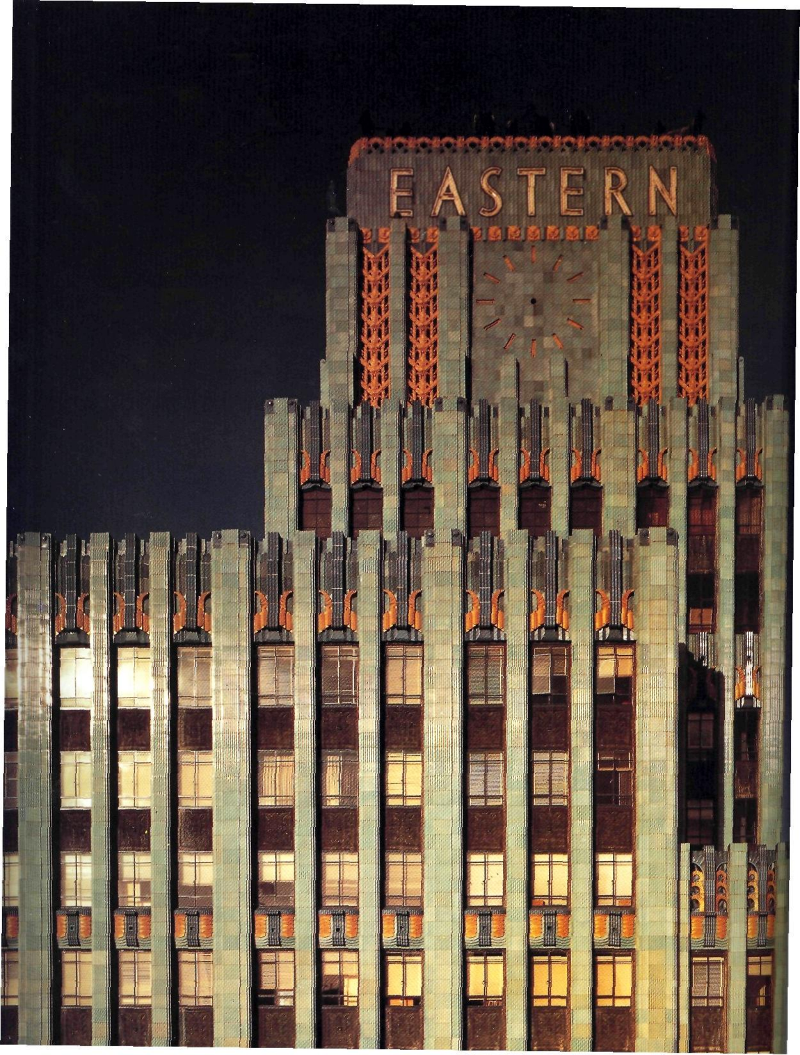
The stainless steel-arched, triangular-windowed spire of the Chrysler Building (William Van Alen, 1928-31) is a Manhattan landmark. Although the seventy-seven storey building's height has long been surpassed, its sparkling beauty – part folly and fantasy, part advertising motif, but part functional office tower as well – has yet to be. The Chrysler's façade, which is basically white brick with grey trim, is punctuated with bold, jazzy ornament: chromium nickel-steel Moderne eagle gargoyles on the 59th floor; metal hubcaps in the centre of car-wheel designs in coloured brick on the 31st floor, leading to dual-winged forms, like hood ornaments, at the *corners; and similar aluminium flagpole sockets with winged-head forms.*

The Chrysler's claim to being the world's tallest building was outstripped in barely a year by the mammoth limestone, granite, aluminium and nickel structure piercing the horizon eight blocks south, the Empire State Building (Shreve, Lamb & Harmon, 1930-31). Notwithstanding its long-unrivalled height of 102 stories, the Empire State is more than just a symbol of New York: it is an elegant stepped structure of subtle but strong ornamentation: Moderne eagles over the entrance, cast-metal spandrels, four wing-like extensions clinging to the aluminium mast at its peak and pinnate 'capitals' atop lower-level pilasters. Another Shreve, Lamb & Harmon project was the building at 500 Fifth Avenue (1930-31), with smoky-black terracotta spandrels defining the vertical mid-section of its buff terracotta face and an entryway sparkling with gilded bas-reliefs. The firm also designed the Reynolds Tobacco Company headquarters in Winston-Salem, North Carolina, a twenty-plus-storey building of stepped section and ornament.

Multi-storey and low-rise office buildings sprouted up throughout the United States from the late nineteen-twenties. None was as dramatic as the Chrysler nor as tall as the Empire State, but many became well-known and much-loved landmarks.

In Syracuse, New York, the Niagara Mohawk Power Corporation Building (Melvin L. King, with Bley & Lyman, 1930-32) rivalled the Chrysler in terms of the shiny metal on its limestone façade. Dominating the uppermost cresting was 'The Spirit of Light', Clayton Frye's stainless steel figure, a powerful machine-aesthetic rendering of the human form.

In Connecticut, the Southern New England Telephone Company buildings in Hartford (R. W. Foote, 1930) and New Haven (R. W. Foote &


EASTERN

A smart, angular clock tower embellished the centre of the old National Aircraft factory at Croydon Airport. The frontage dates from the nineteen-thirties, and was added on to a vintage-First World War structure.

de force, and possibly the finest Art Deco structure in Britain. A complex of several reinforced-concrete buildings, its principal low-lying mass features towers at either end and an outstanding entrance: a huge overdoor sunray-like motif; pilasters with touches of red, black and green; and gates of ornate metalwork. To the left of the factory is the canteen which, with its streamlined elements and central, stepped section, suggests a cinema in its design.

Other London-area industrial structures were the Cox's Building in Watford (Fuller, Hall & Foulsham,. 1937), with a bold central clock tower, and the Sunlight Laundry (F.E. Simpkins, 1936), which featured two bold sunburst reliefs on its façade, these flanking a clock tower over a recessed entryway. Sir Giles Gilbert Scott's Guinness Brewery (1933-36), located in Park Royal, was an asymmetrical complex with handsome brickwork, projecting vertical segments and vertical-fluted bands winding round the tops of each flat-roofed structure. In Southampton, Oliver Bernard's Vickers Supermarine Ltd works (1935-37) was an impressive complex; its office building was a bold five-storey streamlined structure.

A few Moderne factories of note were built in the north of England, in Scotland and in Ireland. The India Tyre and Rubber Factory (Wallis, Gilbert & Partners, 1930-31), Inchinnan, Scotland, was a long, white-washed structure with green, orange and black stripes around the door and entry column. The same firm also designed Burton's factory in Lancashire (1938-39), a mostly red-brick structure with strong black and white tiled elements both vertical and horizontal. In Glasgow, the Leyland Motors Ltd offices and service department (1938) comprised a handsome two-storey brick building centred by a white-stone cylindrical tower with fin-like vertical extensions – which could just as well have adorned an Odeon cinema. The massive black Vitrolite and clear glass wall of the Daily Express Building in Manchester (Sir E. Owen Williams, 1939), through which the rolling presses could be viewed, was similar to its earlier London counterpart in its streamlined-box form. Akin to Wallis, Gilbert's London factories was the Kodak Building in Dublin, an early thirties low-lying, white-sheathed, towered structure.

Lightly ornamented brick buildings predominated among the Moderne factories, warehouses and other industrial buildings constructed in the United States in the nineteen-twenties and thirties. Examples included C. Leslie Weir's various Massachusetts ice company plants, Cubist structures with projecting vertical elements and zigzag bands of brickwork; the light orange brick Pump and Blower Station of the Patapsco Sewage Plant, Baltimore (Frank O. Heyder, 1940), with stepped-in door and window frames and Art Deco lettering on a stainless steel sign; and the Municipal Water Works in Griffin, Georgia, with Streamline scroll-design bas-reliefs over its doors. Somewhat grander was Paul Philippe Cret's Central Heating and Refrigeration Plant in Washington D.C. (1933-34), a brick classical Moderne 'temple of power', its façade set with bas-relief terracotta and limestone panels of mechanical details and machine operators.

NERY SERVICES LTD.

The Pond's Extract Company (from 1955 Chesebrough-Pond's) factory (*opposite above left*) in Clinton, Connecticut, is an example of an American industrial building with a handsomely designed and maintained façade. The concrete structure was built in 1929 by the Aberthaw Company, considerably expanding what had become the inadequate premises of the highly successful maker of cold and vanishing creams.

One of the largest concentrations of attractive Moderne industrial buildings – in the main, low, white-washed structures – was in suburban London. The finest of these were designed by the firm of Wallis, Gilbert & Partners: their 1932 Hoover Factory (*right*) in Perivale was the undisputed star, but the 1929 Firestone (*opposite right*) in Brentford was a close contender. The entrances of both reinforced-concrete structures featured bold polychrome decoration of an exotic-hybrid style against white-washed grounds with mostly classical features. More rectilinear was Fuller, Hall & Foulsham's 1937 Cox's (later Linpac) Building in Watford (*opposite below left*). Similar to many civic projects of the period, Cox's featured a tall central clock tower; its palette, however, was very much in the Moderne factory mode.

The London Power Company's mammoth Battersea Power Station (*right*) was designed by Sir Giles Gilbert Scott with engineer S.L. Pearce. In Australia, two slightly later, partly Mayan-inspired, municipal incinerators were designed by Chicagoan Walter Burley Griffin and E.M. Nicholls: the City of Sydney Incinerator at Pyrmont (*opposite above left*) was sheathed with textured synthetic stone, and the Willoughby Municipal Incinerator (*opposite above right*) was a stepped sandstone and concrete building. Both were made by the Reverberatory Incinerator and Engineering Co. Ltd.

The press blurb on the streamlined American Rolling Mill Company laboratory in Middletown, Ohio (*below*), described the 1937 structure as the 'house that research built': in this case from iron, steel, stainless steel and glass bricks. Also in Ohio was the Owens-Illinois Glass Company building in Toledo (*opposite below*), a defiantly angular glass-grid structure of *c.* 1936.

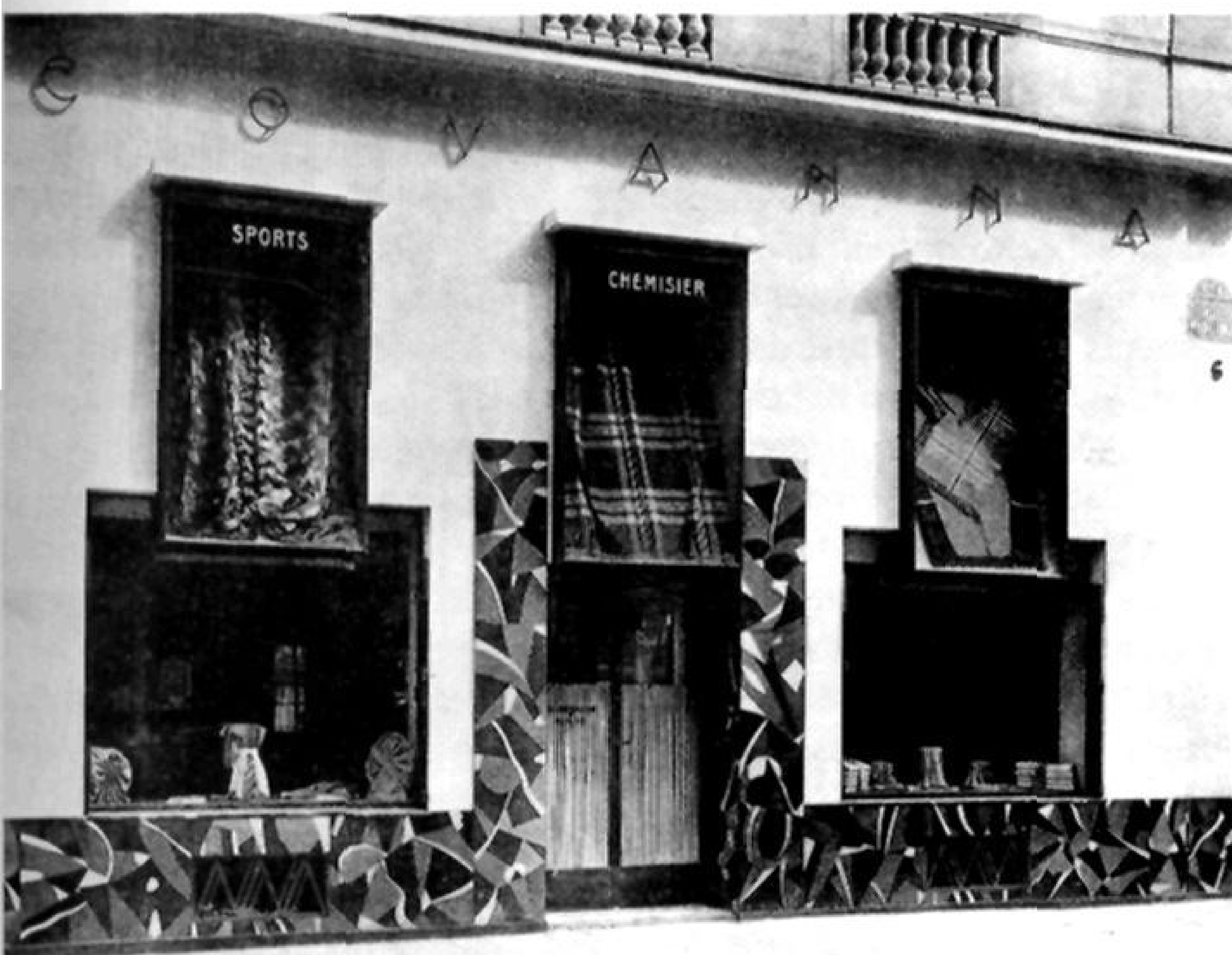
Kress & Co. Building (Edward Sibbert, 1935), comprising a '5, 10, 25 cent store' and offices with decoration inspired by Pre-Columbian sources; like Barker's in London, Kress 'advertised' some of its wares in the guise of square-section relief panels on its façade. Two exclusive Fifth Avenue establishments were elegant boxes with Moderne touches: some 80 per cent of the two street-facing sides of Steuben Glass's five-storey showroom (William & Geoffrey Platt and John M. Gates, 1937) were glass blocks, with handsome relief panels just under the flat-roof line, and Tiffany's (Cross & Cross, 1939-40) was essentially Neoclassical, with a faint Art Deco reference in its overdoor clock, carried on the back of a nude male figure. One of the showiest retail stores in Manhattan was Stewart & Company (Warren & Wetmore, 1928-29), whose dramatic front entrance was altered by Ely Jacques Kahn a mere eight months later in 1930, when Bonwit Teller took over the building.

The shape of this *c.*1937 Hollywood haberdashers is undeniably Streamline Moderne, but its cladding was more in the high-style Parisian vein. It was designed by Douglas Honnold.

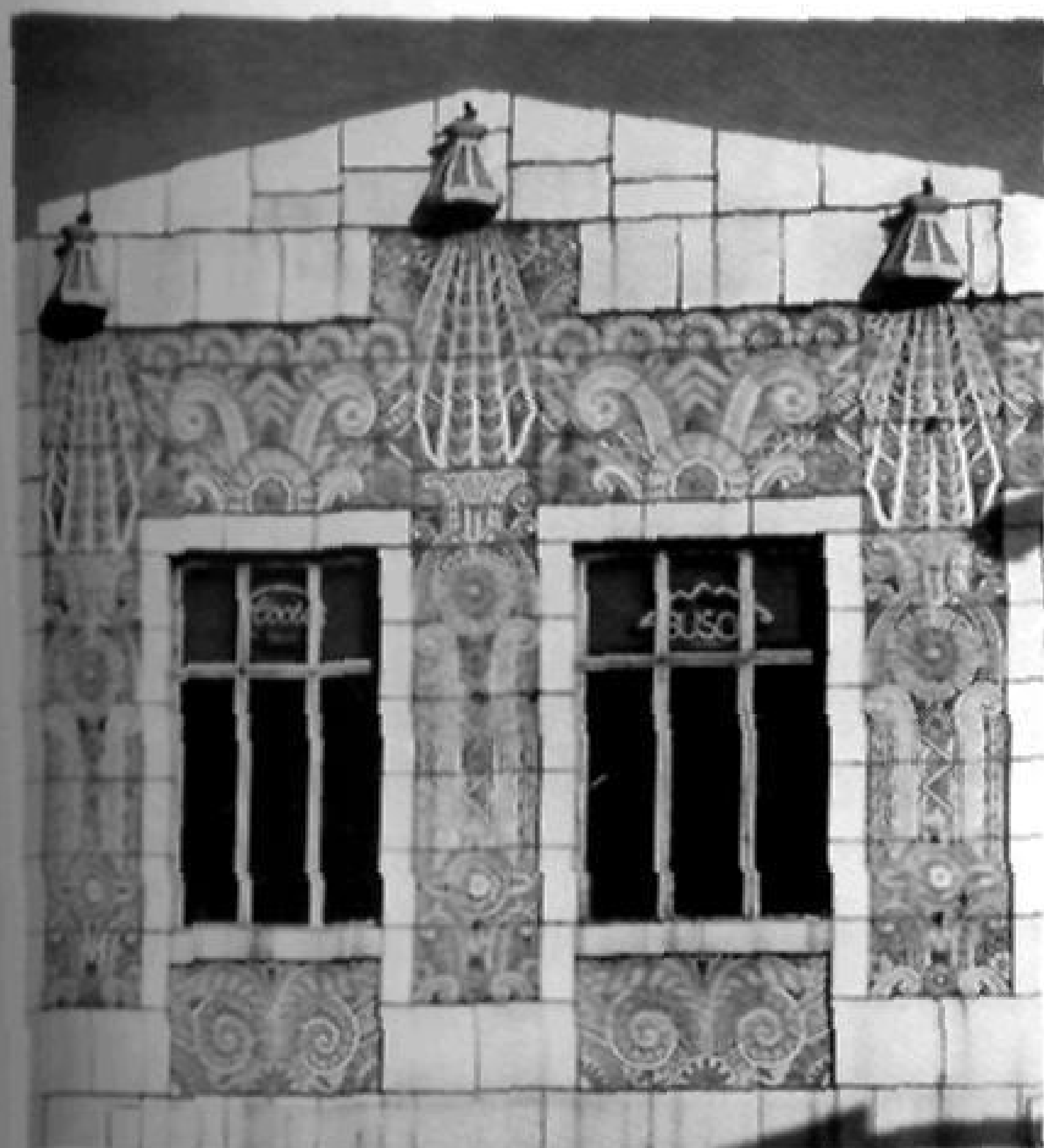
The wrought-iron and gilt-bronze front door of the Cheney Brothers silk store in Fifth Avenue was an authentic French component, created by Ferrobrandt, the New York branch of Parisian *ferronnier* Edgar Brandt; it was composed of stylized blossoms and leaves topped by a golden fountain motif. Other notable French-inspired storefronts included that of the perfumer Delettrez (John Frederick Coman, *c.*1927); the Wise Shoe Shop (Elias Rothschild & Co., *c.*1928); and Nat Lewis (S.S. Silver & Co., *c.*1928). In a category of its own was Joseph Urban's Bedell department store (1926), its façade a smart surface of zigzag and stepped elements, polished stone and ornate metalwork.

Several Art Deco building types were represented in the Horn & Hardart Automat cafeterias which sprang up in New York and Philadelphia in the thirties (the first Automat opened in Philadelphia in 1902). One of the finest was in 181st Street, New York (Louis Allen Abramson, 1930-31), and it featured a polychrome zigzag ribbon on the cornice, a band of stylized blossoms and sunbursts below that and handsome metal light fixtures. Near Pennsylvania Station on 34th Street was a contemporaneous Abramson design, this with four pilasters topped by stylized male figures (their inspiration supposedly Josef Hoffmann's Palais Stoclet in Brussels), as well as elements from the standard floral, geometric and scroll repertoire. The 57th Street Automat (Ralph B. Bencker, 1938) was a hearty evocation of the buff terracotta-faced Odeon-Streamline Moderne School.

This latter façade type appeared profusely throughout the country, on shops, restaurants and cafes, but notably on that ubiquitous retail establishment, the 'five and dime', whether of the H.L. Green, Kresge, J.J. Newberry or Woolworth variety, to name but a few. As in Britain, sleek Vitrolite, often combined with glass bricks, was a popular material for American storefronts, and it was employed in both the ornate zigzag and toned-down streamline modes. New or improved metals and alloys in various combinations were a handsome alternative as well: for example, Desco (Detroit Show Case Co.) copper, bronze and aluminium alloy storefronts were advertised as improvements to existing premises.



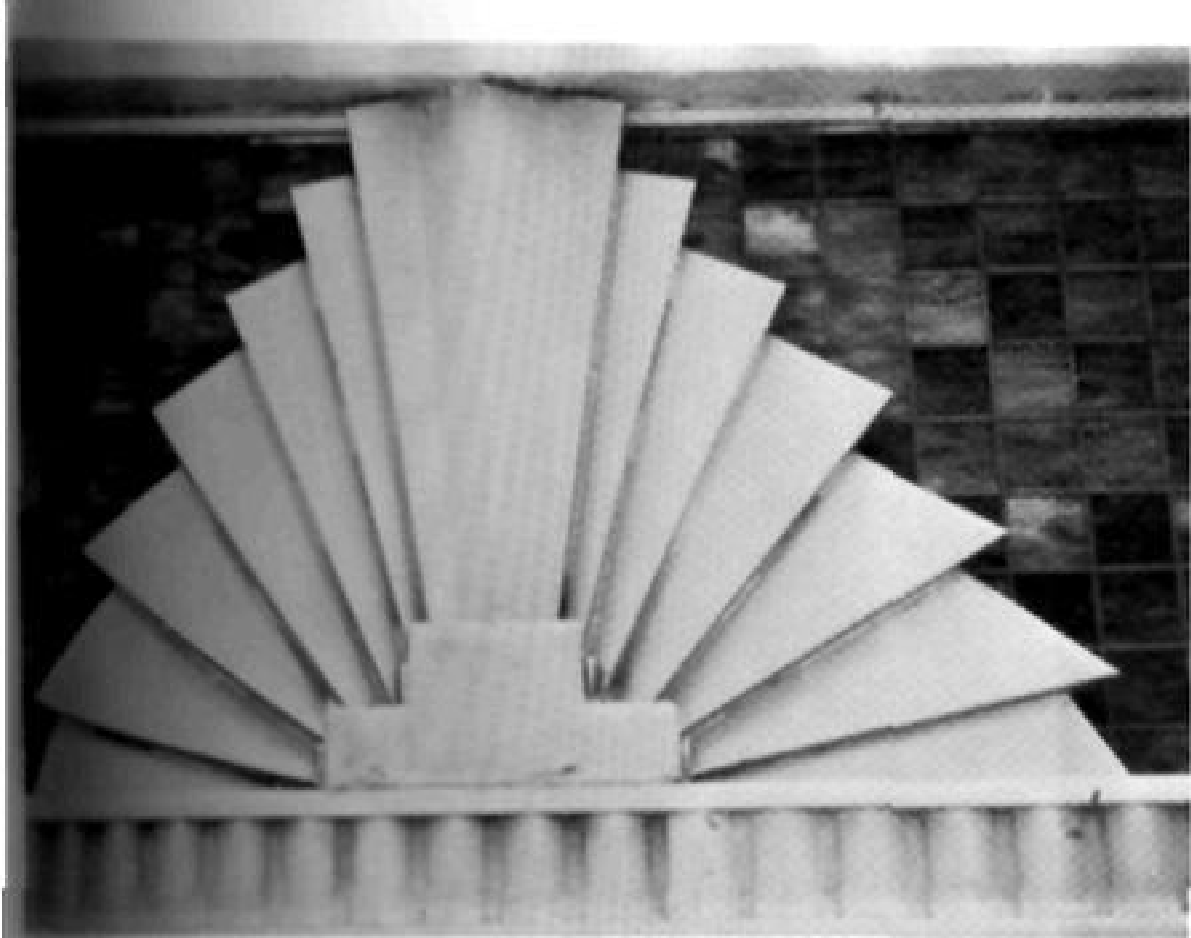
Paris in the nineteen-twenties was rich in Moderne storefronts, their ornamental metalwork, stylish lettering, and geometric and floral embellishments evoking pavilions at the 1925 Exposition. Typical were the Boulevard des Capucines premises of the hairdresser-perfumer Girault (*above left*), by architects Azema, Edrei & Hardy, and Pierre Patout's stucco-sheathed Covanna shop in the Rue Pasquier (*left*), its lower façade enhanced with a bold Expressionist pattern. Its Gallic name and appearance notwithstanding, the Madelon Chaumet ladies' clothing shop (*above*) was in London's Berkeley Square; it was designed by Joseph Emberton in 1926 immediately after the Paris fair (though by the late nineteen-forties it was gone).



Many American retail establishments were designed in *le style moderne*; the owners of such shops as Burdine's of Miami Beach (*below*) were eager to be associated with French style. Gallic-inspired motifs filtered down to the most ordinary retail stores, largely in the guise of polychrome terracotta panels that could be purchased from various suppliers. A fine example of such 'generic Deco' ornament is the tiling on McKecknie & Trask's *c.* 1929 Kansas City retail store (*above*).

Outstanding Moderne decoration surrounded the entrance of Warren & Wetmore's 1928-29 Stewart and Company on New York's Fifth Avenue, in the form of Trygve Hammer's short-lived metal and faience frieze depicting the fountains of youth and beauty (less than a year later it was replaced by Ely Jacques Kahn's geometric design for new owner Bonwit Teller). This building was demolished in 1980 to make way for the Trump Tower.

Los Angeles was home to several large Art Deco department stores. Bullock's Wilshire (*opposite left*) was directly inspired by the 1925 Paris Exposition, which the co-founder of the store, P.G. Winnett, had visited; today I. Magnin, it was designed by John Parkinson and Donald B. Parkinson in 1929. In the Streamline Moderne vein were Coulter's (*left*), designed by Stiles O. Clements in 1937 (an demolished in 1980), and the 1940 May Co. (*below*), by *Albert Martin and S.A. Marx.*

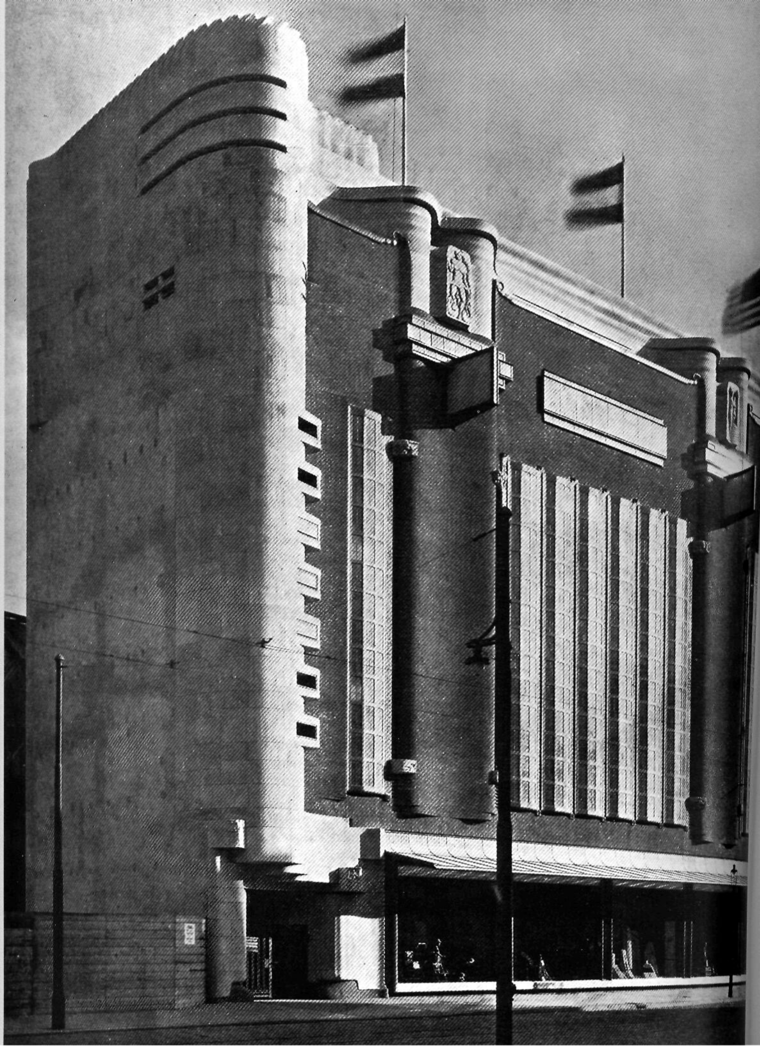


stylized-floral overdoor decoration, would not have been out of place in New York or Paris.

Pueblo Deco commercial buildings can be found in New Mexico, Arizona and Texas. In Albuquerque, Maisel's Trading Post (John Gaw Meem, 1937) was distinguished for its zigzag aluminium grillework, terrazzo entry floor (decorated with a thunderbird of inlaid coral and turquoise) and mural, which depicted events from Apache, Navajo and Pueblo life painted by Native American artists. Wright's Trading Post (*c.*1935), also in Albuquerque, includes fluted, fan and stepped-diamond decoration, and several grid patterns of turquoise opalescent glass tiles (meant to entice customers to buy the turquoise jewellery on sale; they were also a Hopi symbol for stacked ears of blue corn). The Skinner Building in Albuquerque was a grocery store designed by A.W. Boehning in 1931; it displayed a wealth of Moderne motifs, including stylized volutes, zigzags and wavy bands, some of which were part of the Native American design vocabulary. In Amarillo, Texas, the buff brick-clad White & Kirk Building (Guy Carlander, 1938) mixed indigenous flora motifs (the yucca cactus) with Art Deco zigzags on a terracotta band above the department store's first storey. Also in Amarillo, another Pueblo Deco store was S.H. Kress (Edward Sibbert, 1932), a stepped, buff-brick building set with standard-issue polychrome floral terracotta panels near the top.

Los Angeles's major retail building of the period was Bullock's Wilshire (now I. Magnin) store (John and Donald B. Parkinson, 1929), a stepped, towering pile of tan terracotta with copper detailing. Much of its design inspiration came from France: cofounder P.G. Winnett had visited the 1925 Exposition and afterwards wanted his store designed in *le style moderne*. Many motifs were Gallic in taste, such as the ornamental metalwork, but other elements were strongly American, like Herman Sachs's massive ceiling fresco, 'Speed of Transportation', in the motor court: its centrepiece was a turquoise Mercury set amid an ocean liner, dirigible, locomotive and aeroplanes. Another deluxe Deco building was the Selig Retail Store (Arthur E. Harvey, 1931), which featured a wealth of glazed gold and black terracotta tiling at its upper level. Two massive corner-curved-box department stores were May Co. (Albert Martin & S.A. Marx, 1940) and Coulter's (Stiles O. Clements, 1937).

More downmarket, but no less interesting, retail establishments – including drive-in restaurants – began to carpet the southern Californian landscape in the twenties and thirties. The Darkroom (1938) was a camera store whose façade was a giant Vitrolite and metal camera, and the Crossroads of the World shopping centre in Hollywood (Robert V. Derrah, 1936) had a nautical theme akin to the same architect's Coca-Bottling Plant. Ralph's Supermarket in Inglewood (Stiles O. Clements, 1940), one of many the architect designed for the chain, was an undistinguished, flat-roofed white mass, except for the bold perpendicular slab of a sign that towered overhead.



the comfortable, often opulent surroundings of the local Palace, Hollywood, Capitol or Paramount. Many American cinemas and theatres, especially in the twenties, were designed in exotic, revival styles. Cinemas inspired by Pre-Columbian sources began to appear considerably earlier, such as the Aztec Theater in Eagle Pass, Texas (Leonard F. Seed, 1915). Later examples could be strictly Mayan-influenced, with barely a Moderne touch, such as the densely surface-decorated Mayan Theater in Los Angeles (Morgan, Walls & Clements, 1927), a mix of Mayan and Aztec elements, or they could be hybrid beasts, like the Mayan Theater in Denver (Montana Fallis, 1930), with its stepped form, zigzag bands, vertical sign and dominant bas-relief of a Mayan warrior. Elsewhere in the Southwest, cinemas with Native American motifs were built, such as the KiMo Theater in Albuquerque (Robert & Carl Boller, 1927), converted from a legitimate theatre into a cinema in the nineteen-thirties. The Pueblo Deco KiMo was faced with stucco (to imitate adobe) and then adorned with a wealth of polychrome terracotta designs, all derived from Native American sources but with some familiar components of the Art Deco vocabulary.

In California above all, exterior cinema design – not just the flat façade, but the overall shape – often added up to a glittering display: some parts might derive from 1925 Paris, others from a D.W. Griffith epic, still others from sources like ancient Greece and the Far East. Two Los Angeles cinemas, the Wiltern Theater (S. Charles Lee, 1929-31) and the Pantages Theater (B. Marcus Priteca, 1929-30), featured ornate exteriors with a heavy mix of high-style Parisian motifs. Lee, a prominent cinema designer, adapted his flamboyant style to the less opulent Streamline Moderne taste of the thirties, his Academy Theatre in Inglewood (1939) a glass-brick, rounded pile with a towering, fluted-chimney-stack of a sign, wrapped all round with a snaking spiral and topped with a three-dimensional sunburst.

A superb cinema in Oakland was designed by the San Francisco-based architect Timothy L. Pflueger. The Paramount (1931) boasted perhaps the most lavish, certainly the largest, Art Deco figural image on its façade, a mosaic of two puppeteers divided by a vertical sign.

An important cinema designer in the United States was Austrian-born, New York-based John Eberson, who created the Rex in Paris in 1932 with Auguste Bluysen. In the Washington, D.C., area he designed the Penn (1935) and Beverly (1938), both dominated by Streamline Moderne marquees, while the Silver (1938), in Silver Spring, Maryland, sported a smart vertical sign of a nautical bent (a theme running through the Eberson-designed shopping centre in which the cinema was located). His Highland Theatre (1940) featured a Vitrolite-framed entrance and, over this, a pattern of tan and black bricks imitating sprocket holes on film. Another handsome Washington cinema was the Trans-Lux (Thomas Lamb, 1936), whose marquee was surmounted by a prismatic glass tower; the theatre was part of a cinema-retail-office complex that had been likened to an ocean liner with its long, sweeping lines and projecting verticals.

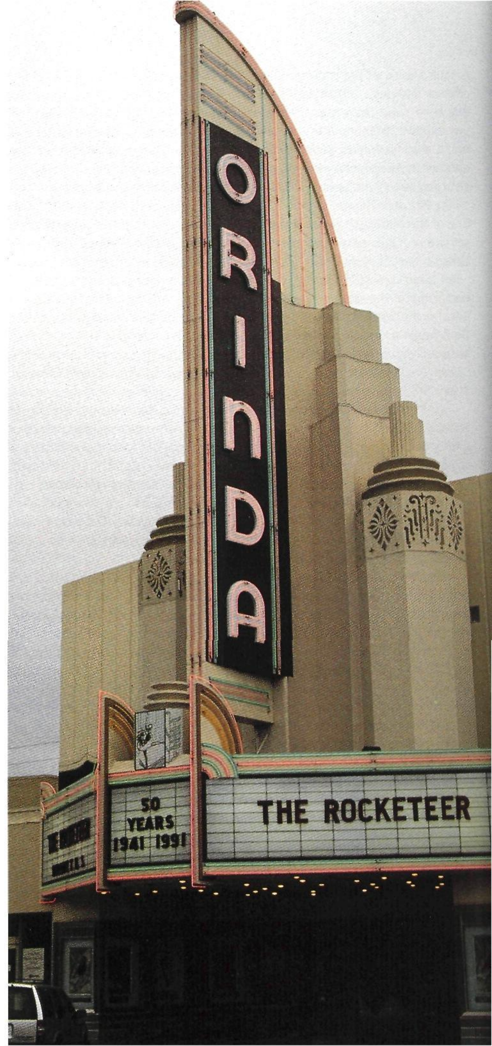
More than any other types of building in the nineteen-twenties and especially the thirties, cinemas (and to a lesser extent legitimate theatres), came to define – and glamorize – modern architecture. The cinema was perhaps the only truly international, pancultural Art Deco building, as the geographic range of examples on these (and some of the following) pages show. Seen here are the Plaza in Buenos Aires (*opposite left*), London's 1931 Troxy (later the London Opera Centre) by George Coles (*opposite above right*), the Lido cinema in Venice (*left*), the theatre in Sidi bel Abbes, Algeria (*opposite below right*) and the Folies-Bergère in Paris (*above*), featuring Picot's exuberant bas-relief of a dancer.

LONDON OPERA CENTRE

The salient feature of many cinemas the world over was a vertical element: a towering pylon, parapet or other latter-day obelisk that stood out like a lighthouse's beacon. Britain's Odeons were especially notable for such embellishments, as exhibited by two cream-coloured, faience-clad designs by Georges Coles, the 1937 Odeon Woolwich (*above right*) and the 1938 Odeon Balham (*left*). Even as far afield as Kuching, in Sarawak, Indonesia, the Rex (*above left*) followed a similar architectural formula. Doubtless S. Charles Lee's Academy in Inglewood (*opposite*) was one of the Los Angeles area's tallest cinemas: its main area comprised interlocking stucco-clad cylinders, but its crowning glory was a 125-feet-high fluted-chimney-stack sign, wrapped all around with a snaking spiral (that was originally lit with blue neon) and surmounted by a three-dimensional sun.

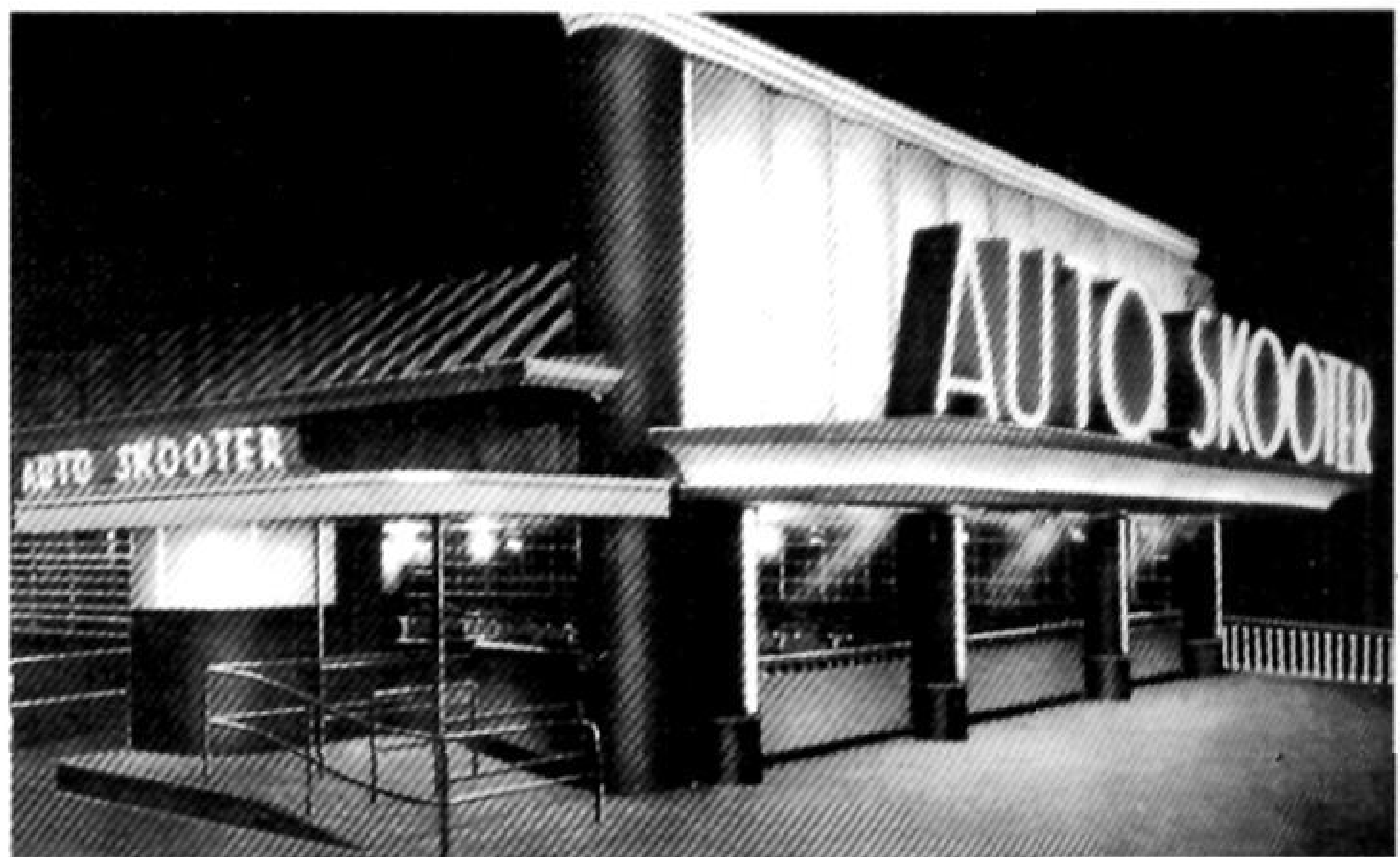
ACADEMY
Academy
COLOR

From small-town to big-city America, cinemas were built in earnest to accommodate the record numbers of moviegoers in the twenties and thirties. Some were discreetly integrated into their urban contexts, as Boak & Paris's 1933 Metro (*above*), on Manhattan's upper Broadway, its façade decorated with a roundel depicting Comedy and Tragedy. Altogether more cinematic and dramatic – and of the soaring vertical-extension genre – are A. Hurley Robinson's Curzon Loughborough of 1936 (*right*) and, near San Francisco, A.A. Cantin's 1941 Orinda (*opposite right*), its massive piers like those on several exhibits at the 1939 Golden Gate Exposition (see page 53).



REGAL
ABC
REGAL
EMI
REGAL
CONTINUOUS PERFORMANCES MON. WED. SAT.
EVENINGS TUES. THUR. FRI.
STATIONERY
CONFECTIONERY
PLAYWELL

The rectilinear Moderne cinema and theatre, with hardly a curve on its angular exterior, was another international type; its design was in part indebted to Willem Marinus Dudok's Hilversum Town Hall in the Netherlands, in part to the nascent International Style. The Regal Uxbridge (*opposite above*) was designed by E. Norman Bailey in 1931 and included the zigzag motif on its façade; a similar boxy form characterized the Brighton Odeon (*above right*), which Andrew Mather created for Oscar Deutsch's chain in 1937. Stepped towers flanked the entrance of Gaston Leroux's c.1932-35 Théâtre de Villeurbanne, Lyons (*opposite below*), a far cry from high-style Paris Moderne of a decade earlier, while a single right-hand tower distinguished the Palmarium in Tunis (*below right*), whose name was spelled out with bold Moderne lettering.



Like world fairs, amusement parks in the twenties and thirties often included fantasy architecture that took *le style moderne* to dizzying, decorative heights. Unlike temporary exhibition pavilions, however, arcades, rides, stalls and other architectural fun-fair attractions, such as the 'Auto Skooter' bumper cars at Denver's Lakeside Park (*above*), housed in a smart Streamline Moderne enclosure, generally had longer lives.

One of the most lavish seaside entertainment centres was the Palais de la Mediterranée (Charles Dalmas, 1927-28), the two-acre playground American multi-millionaire Frank Jay Gould built along Nice's Promenade des Anglais. Its massive marble and stucco façade was that of a white-washed Moderne temple, with side sections displaying stylized Neoclassical tableaux. Joseph Emberton's Blackpool Casino (1938-39) was a markedly different gamblers' haunt, with a lively vertical sign abutting a tall, spiralling staircase.

Smaller poolside structures, too, came in Art Deco packages, such as those at the Kearney Pool in Kearney, Nebraska (1936); the Green Hill Farms Hotel in Philadelphia (*c.*1929); and the Arizona Biltmore, Phoenix. Regent's Park Zoo in London contains perhaps Britain's best-known and -loved Streamline Moderne 'structure': the Penguin Pool (Berthold Lubetkin and Tecton, 1933–34) – all white, sculptural, stepped, spiralling and cantilevered.

Private clubs and associations across the United States opted for Moderne rather than traditional looks for their clubhouses or headquarters, though some, like the massive Elks Temple in Los Angeles (Curlett & Beelman, 1925), included traditional symbolic elements around the façade. A small gem of an Art Deco building, arguably Connecticut's finest, is the Polish National Home in Hartford (Henry F. Ludorf, 1930), which features a wealth of carved and forged ornament on its buff brick-covered four sides. Form alone, rather than applied decoration, distinguished the handsome Women's City Club in St. Paul, Minnesota (Magnus Jemme, *c.*1932); large fluted cylindrical segments and stepped sections, along with wraparound windows, gave it an elegant Moderne silhouette.

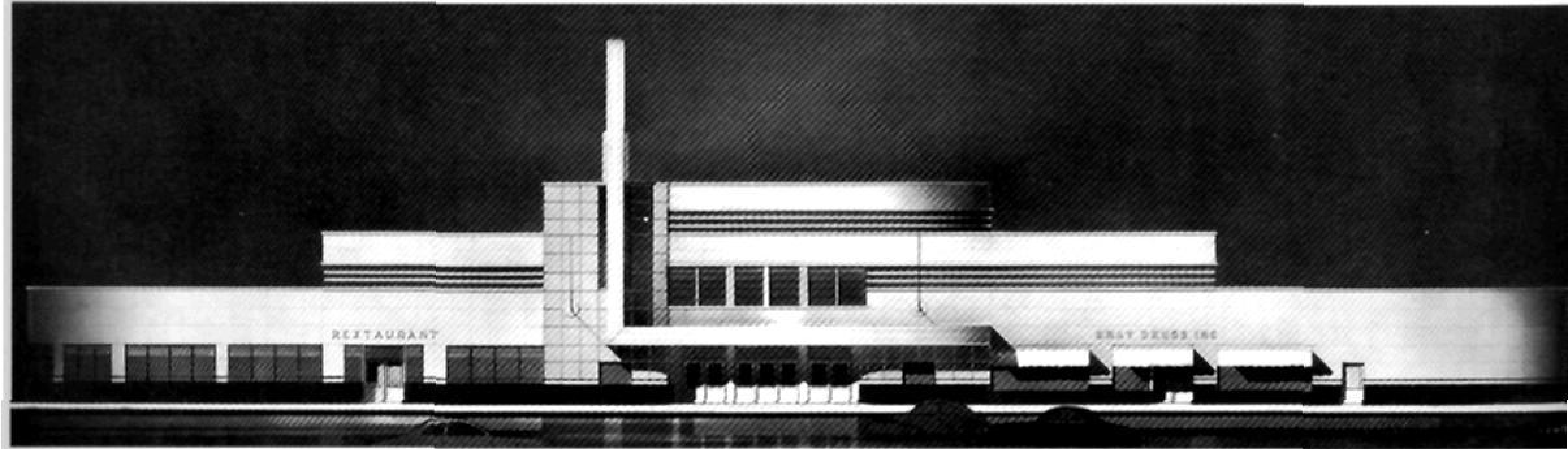
Travel Buildings

Streamlined, aerodynamic, thoroughly modern images were strongly expressive of increased opportunities in travel in the twenties and thirties. From sleek locomotives and gleaming automobile bodies to giant-prowed ocean liners and bullet-like dirigibles, methods of modern travel conjured up a new vocabulary of images. Consequently, transportation-connected buildings were prime subjects to which architects could give Moderne forms or elements of the streamline type.

Colourful, decorated structures like Otto Wagner's Karlsplatz station in Vienna (1898–99) and Eliel Saarinen's Helskinki Railroad Station (1904–14) paved the way for exuberant Art Deco-period railroad termini. One of the grandest was Milan's Stazione Centrale (Eugenio Montuori, 1931), a massive stone pile that followed in the tradition of monumental Italian architecture, but also possessed Moderne elements, including geometric motifs and stylized animal and human figures.

In the United States, the Cincinnati Union Terminal (Roland Anthony Wank & Paul Philippe Cret, for Fellheimer & Wagner, 1929–33) was a huge domed concrete pile. The gently stepped exterior, though not as ornate as the interior, contained two massive figural reliefs and, supporting the huge numberless clock, a pair of stepped pilasters. The same firm also designed the New York Central Terminal in Buffalo (1927–29), which comprised a

Firestone



The Louisville, Kentucky, architectural firm founded in 1926 as Wischmeyer & Arrasmith created hundreds of Greyhound Bus Terminals from 1937 to 1972. Many of W.S. Arrasmith's finest thirties designs were of the low, single-towered variety, as seen in his sleek plans (drawn by S. Arthur) for Streamline Moderne depots in Cleveland (*above*), dated 1946, and Washington, D.C. (*left*), 1938.

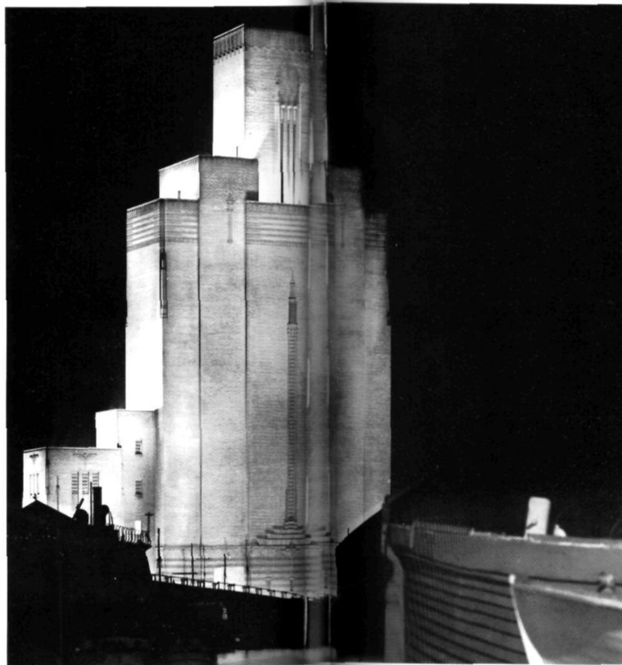
An important model for American civic structures was Bertram Grosvenor Goodhue's Nebraska State Capitol (see page 181). Along the same lines as that broad-based, central-towered stone mass was the 1926-28 Los Angeles City Hall (*below*) by John C. Austin, John Parkinson and Albert C. Martin; unlike the gold-domed Goodhue project, it featured a Mayan pyramid roof. In New Jersey, the c.1931 Camden County Courthouse and City Hall (*opposite*) by Edwards & Green, featured handsome Moderne metalwork (including doors with Native American and geometric motifs). On the other side of the Atlantic, Charles Holden designed the 1932-37 Senate House of the University of London (*right*) as a finely proportioned, Portland stone-clad stepped mass.

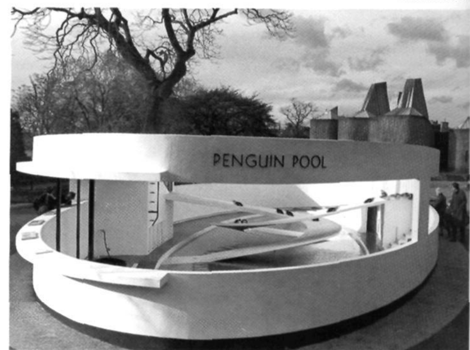
Civic Structures

Bertram Grosvenor Goodhue's influential Nebraska State Capitol at Lincoln (*opposite*), dating from *c.*1920-32, set an example for numerous civic structures throughout the country, including the 1933 Louisiana Capitol in Baton Rouge (*right*), designed by Weiss, Dreyfous & Seiferth of New Orleans. The two shared similar monumental forms, as well as the talents of sculptor Lee Lawrie. The elaborate sculptural programmes on and around these and other such buildings often had direct relevance to the region or state, such as 'The Sower' topping Goodhue's golden dome (the building's setting was fertile Nebraska farm country) and, echoing the Louisiana tower's form, the 1940 memorial to Governor Huey Long, who had initiated the Capitol project.

Both original subjects and stock Art Deco motifs enhanced many educational institutions in the United States. In New York City, Hermann Ridder Junior High School, otherwise known as Public School (P.S.) 98 (*left*), featured figure-topped pilasters over the entrance tower and, along its two sides, a row of stepped parapets.

Civic Structures





Herbert J. Rowse's towering ventilation station (one of six) of the 1934 Mersey Tunnel in Liverpool (*above*) stands out as a bold, decorated civic skyscraper. In Los Angeles, Morgan, Walls & Clements designed the Thomas Jefferson High School (*above left*) in 1936, while Berthold Lubetkin and Tecton created the sleek, abundantly glazed Finsbury Health Centre in London (*below left*), admittedly more Modernist than Moderne, in 1938. Lubetkin designed one of the British capital's best-loved 'waterfront complexes': the 1934 Penguin Pool (*above right*) at London Zoo in Regent's Park, a part-Moderne, part-International Style structure. In Paris's 13th *arrondissement*, an unusual stepped, cylindrical school in the Rue Kuss (*below right*) was designed by Roger-Henri Expert in 1934. Expert contributed to the design of the *Normandie* ocean liner, so the institution's decidedly nautical bent is not surprising.

The Pueblo Deco style was used for several significant courthouses. The Potter County Courthouse in Amarillo, Texas (Townes, Lightfoot & Funk, 1932), was quite similar in shape to the aforementioned Racine building, but its relief sculptures, such as a frontiersman, ox yoke and prickly pear cacti, were of regional interest. The U.S. Courthouse in Fort Worth was designed by Paul Philippe Cret in 1933; it, too, contained Native American motifs, no more profusely than on the aluminium grilles, spandrels and other metalwork, which included stepped pyramids, zigzags and scalloped lines. The Cochise County Courthouse in Bisbee, Arizona (Roy Place, 1931), featured cast-concrete stylized cactus spandrels and two bronze figures of Justice in a sunray surround on the doors.

In Europe, the white granite-faced Government Buildings in Dublin (J.R. Boyd Barrett, 1935–38) comprised a basic stripped-Neoclassical mass, but with an Art Deco entrance bay including a bas-relief over the door, zigzag spandrels and a Moderne mask of a woman's face. The Federal Building in Balboa Park, San Diego (Richard Requa), could not present a more antithetical face: built for the 1935 California-Pacific International Exposition, its direct inspiration was the Governor's Palace at Uxmal. A dense ornamental band, with a mask at its centre, was over the door. The Albuquerque Federal Building's inspiration was more general: its façade featured much Native American ornament, especially the thunderbird.

Several foreign embassies and other such buildings, especially French or French colonial, were built in the Art Deco style. The French Legation in Belgrade (Roger-Henri Expert, 1934) was a monumental-Moderne structure featuring Carlos Sarrabezolles sculptures. In Algeria, the Maison du Colon in Mascara (1938) was a modified stepped structure with reliefs, metalwork and lettering in the Moderne style, and Oran's Maison de l'Agriculture boasted a three-sided corner façade covered with bas-reliefs.

Schools, libraries, museums and other buildings related to learning and culture were designed with various Moderne aspects, notably bas-reliefs and carvings. Most such institutions were of traditional, function-first forms, but they might feature an ornamental band of scrolls or zigzags, stylized-floral panel, sunburst window or, most commonly, Moderne lettering, as on the 1930 grammar school, St Mary of Czestochowa, in Middletown, Connecticut, whose unremarkable form was given a quasi-jazzy façade with Deco lettering, an overdoor zigzag band and a spider-web design.

W.P.A labourers helped build large numbers of Moderne schools throughout the United States, including the sprawling, stepped North Side Senior High School in Fort Worth (Wiley G. Clarkson, 1937). Stylized scrolls, fluting, fountain motifs, wavy and scalloped bands, and diamonds featured among the cast-stone designs on the cream-brick façade. A horizontal mass with two side wings, Baltimore's Garrison Junior High School (Smith & May, 1931) was capped with geometric and floral cast-concrete trim; a wealth of detail on the central tower resembled so much white icing on red brick. Two notable Washington, D.C., area schools were George Washington High School in Alexandria, Virginia (Raymond Long, 1935), its entry comprising

three fluted piers that terminated above the roof as rounded fins in a stepped motif, and the Streamline Moderne Greenbelt Center Elementary School in Maryland (Douglas Ellington & Reginald D. Wadsworth, 1936), set with bas-relief panels illustrating the clauses of the Preamble to the Constitution. Appropriate decoration featured on the cornice of the Biology Institute building at Harvard University (Coolidge, Shepley, Bullfinch & Abbott, *c.*1932): a hand-carved brick frieze of elephants. A lofty allegorical group made up of Truth and Justice featured over the entrance of the New Jersey Law School in Newark, which in the early thirties was remodelled out of the old Peter Ballantine Brewery. Black, green, tan, blue, sienna and orange terracotta was used in the vignette, which depicted four figures in a high-style Parisian setting that included a fountain, floral urn, wavy clouds and sunburst. Colour, including blue terracotta panels, was a prime component of the jazzy façade of Bloom High School in Chicago Heights, Illinois (Royer, Danelli & Smith, 1931), a veritable encyclopedia of Art Deco: zigzag, chevron and wave patterns, stepped segments, foliate spandrels and figural sculpture (seated students of stone).

During Prohibition, the old Peter Ballantine Brewery in Newark became the New Jersey Law School, its remodelled entrance covered with stylized Moderne motifs, as well as bas-relief figures and objects symbolic of Truth, Justice and Knowledge.

Thomas Jefferson High School in Los Angeles (Morgan, Walls & Clements, 1936) was pure Streamline Moderne. A wide array of Neoclassical-Moderne relief sculpture appeared on South Pasadena High School (Norman Marsh, David Smith & Herbert Powell, 1935–36; Merrell Gage, sculptor); Lou Henry Hoover School, Whittier (William Henry Harrison, 1938; Bartolo Mako, sculptor); and Hollywood High School (Marsh, Smith & Powell, 1934–35; Merrell Gage and Bartolo Mako, sculptors).

In Britain, the finely proportioned, stepped mass of Charles Holden's Senate House of the University of London (1932–37) is remarkable for its attention to detail, rich Portland-stone façade and pair of gargoyle-like sculptures, on the north and south elevations. More in the Dudok idiom were Bedford Girls' Modern School (Oswald P. Milne) and H.W. Burchett's Greenford County Secondary Grammar School in Middlesex, both handsome thirties brick blends of rectilinear and rounded elements with towers.

A notable Streamline Moderne school in France was Roger-Henri Expert's Ecole Communale in the Rue Kuss, Paris (1934). Its dramatic form comprised four setback, stepped cylinders circled with metal railings and *centring square sections; at the top was a rectilinear tower. Expert's nautical* work (he helped fit out the *Normandie*) was evoked with this form. Another Paris school, in the Boulevard Berthier (A. Dresse & L. Oudin, with René Lecard, 1938), was akin to an Odeon, with two low side arms around a central section that featured a bas-relief of the arms of the City of Paris.

Paul Philippe Cret's Folger Shakespeare Library in Washington, D.C., was a sober stone pile of 1932, designed in collaboration with Alexander B. Trowbridge. Often referred to as 'Greco Deco', the clean-lined, classically proportioned pile nonetheless included strong modern statements in its abundant use of cast aluminium (for windows, grilles and railings) and its novel ground-level placement of nine bas-relief panels depicting scenes from Shakespearian plays.

Of all the American libraries built in the thirties, two of the best known were in Washington, D.C.: the classically influenced Folger Shakespeare Library (Paul Philippe Cret, with Alexander Trowbridge, 1932) and the huge Library of Congress Annex (Pierson & Wilson, with Alexander Trowbridge, 1939). Often referred to as 'Greco Deco', the Folger was indeed a classically proportioned, clean-lined work, but it also acknowledged the present, with its nine classical-Moderne bas-relief panels and cast-aluminium grillework,

balustrades and windows. The Library of Congress Annex has also been called Greco Deco; its finest Deco components are inside the grand, white-washed structure, but such external details as a stylized marble owl, Moderne lighting fixtures and abundant zigzag and fluted elements are noteworthy.

Also built in the Art Deco period was the Los Angeles Public Library (1922–26), a structure of roughly the same pyramidal-tower form as the nearby Los Angeles City Hall. This was not surprising, since City Hall's inspiration was in part taken from Bertram Goodhue's Nebraska State Capitol – and the architect of the library was Goodhue (with Curleton M. Winslow). The raised pyramid surmounting the library's tower is covered with glittering tiles, a shining rayed sun enclosed in a blue circle its salient feature. Various historical and mythological characters adorn the exterior, which is more exotic hybrid than Moderne. But American libraries were not all monumental piles: for instance, a boxy public library in Pine Bluffs, Arkansas (*c.*1935), was exuberant and inviting, a stylized sunburst window over the door, ziggurat motifs over windows, decorative spandrels and zigzag cornices. The Bass Museum of Art in Miami Beach, designed by Russell T. Pancoast, opened in 1930 as the Miami Beach Library and Art Center. The tripartite entrance of the stepped keystone building featured two Moderne wrought-iron sconces and three bas-relief panels by Gustav Bohland, the centre one a stylized pelican with palm fronds. Above the entrance were two sculptural groups of three seagulls perched one on top of another.

In Europe, an interesting modernization of a traditional form occurred in the four identical public libraries (1934–35) designed by the Dublin Corporation for the suburbs of Drumcondra, Inchicore, Phibsboro and Ringsend. The high-pitched roofs were traditional, but the libraries' entryways – stepped back, with ornamental metalwork and a zigzag border – were distinctly Moderne. Even the traditional Gaelic script was given a quasi-contemporary look.

The Native American totem pole form was updated in quasi-Moderne manner (by Toronto architect John M. Lyle) and used as a door surround on the Runnymede Branch of the Toronto Public Library.

The Royal Masonic Hospital in Ravenscourt Park, London (Sir John Burnet, Tait & Lorne, 1929–33), made a bold two-sided Moderne statement. Not only did the brick structure include innovative welded-steel, curved porches ('sun balconies') of nautical inspiration, but it also looked back to Dudok's Hilversum Hall by virtue of the Administration block's dramatic stepped entry, which included textured brickwork and a pair of elongated figural sculptures terminating above-door pilasters. The Hospital for Infectious Diseases, Paisley, another thirties project by Sir John Burnet, Tait & Lorne, comprised some dozen white-washed buildings in a verdant setting, many with streamlined corners, nautical railings and thick piers adorned with horizontal bands. On the other hand, a novel Modernist agenda was followed by Berthold Lubetkin and Tecton in the Finsbury Health Centre, London (1935–38), with its myriad glass bricks and facing tiles making it an exceptionally adventurous design for thirties London.

British Isles. The reinforced-concrete church was a transatlantic hybrid project, close in spirit to the Grundtvig Church in Denmark and created by an American who specialized in ecclesiastical buildings (and had worked with Frank Lloyd Wright). The plan of the Irish church was ambitious and innovative, with the entire octagonally shaped building stepped back from the façade. And the drama was increased by American sculptor John Storrs' Christ figure flanking the doors. Another Byrne design was Christ the King, Tulsa, Oklahoma, a 1925 Gothic-inspired church of rectangular form with hexagonal windows and a wealth of pinnacles.

There was another significant church in Tulsa, an oil-rich city that boasted a wealth of Art Deco architecture. The decoration of Boston Avenue Methodist Church (1928) had been attributed to its architect Bruce Goff, but it was largely created by Adah Robinson, Goff's teacher. The granite-based limestone structure featured a multitude of pinnacles and an abundance of symbolic stained glass and sculpture. Robinson's design programme reflected the desire of pastor John A. Rice to use a new set of symbols in his church; some Moderne motifs were praying hands, the seven-pointed star (for the seven virtues) and two indigenous flora, the torch lily (representing the church's strength and generosity) and the coreopsis (symbolic of the church's joy and hardiness).

Other Moderne religious structures in North America ranged from tiny meeting places (the Streamline Moderne Reading Room of the First Church of Christ Scientist in Winter Haven, Florida) to imposing modern temples (the Mormon Church in Cardston, Alberta, Canada, *c.*1931). Also in Canada, St. James Anglican Church in Vancouver (Adrian Gilbert Scott, 1935–37) was a Gothic Revival structure with stepped, angular and other Moderne references; surmounting its upper tower was a pyramidal roof that could have come from a Manhattan skyscraper. Martin Hedmark's First Swedish Baptist Church in New York (*c.*1931) was quite obviously indebted to the Grundtvig Church in Copenhagen, while the Church of Our Lady of Lourdes in Boyle Heights, Los Angeles (L.G. Scherer, 1930) was a mix of Spanish Mission and Art Deco. The First Baptist Church in Ventura, California (Robert B. Stacy-Judd, 1928–30), featured a soaring, ziggurat parapet, zigzag bands and stepped, triangular and fluted motifs. Two other Stacy-Judd projects, Los Angeles's Philosophical Research Center's auditorium (*c.*1935) and the Church of Jesus Christ of Latter-day Saints in Mexico City (1934), included Mexican palace-like towers and other Mayan motifs which regularly appeared in the architect's *oeuvre*.

In New York, the Church of the Heavenly Rest (Mayers, Murray & Philip, *c.*1929–30) in Fifth Avenue was Gothic Revival in form, with some exterior sculpture Moderne in spirit. The Fourth Church of Christ Scientist (Cherry & Matz, 1931–32), located in 181st Street in Manhattan, was a two-stepped square building decorated with zigzag bands and stylized foliate forms. The Church of the Most Precious Blood in Long Island City (Henry J. McGill, 1932) featured a superb Pueblo Deco interior; its exterior included stepped window frames and Moderne sculpture. McGill also designed the Shrine of

the Little Flower in Royal Oak, Michigan (1933), whose Charity Crucifixion Tower was a densely carved free-standing tower with various figures and motifs surrounding a massive Christ on the cross; René Paul Chambellan was the sculptor.

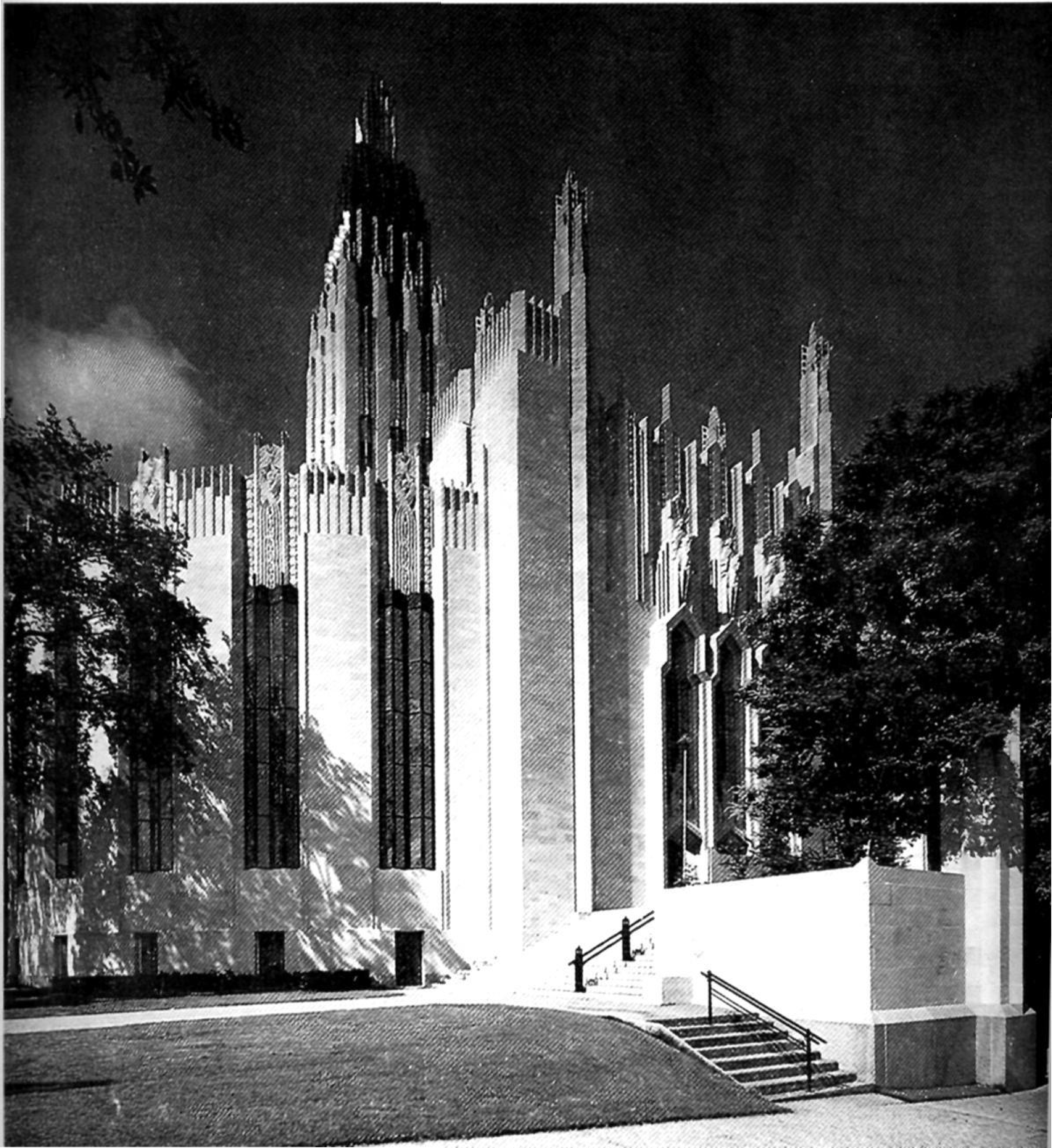
Memorials, monuments, mausoleums and other sculptured 'structures' abounded in the interwar years, with the First World War bringing about hundreds of memorials, in Europe as well as North America and Australia. Probably the finest such Art Deco monument is the Anzac Memorial in Hyde Park, Sydney (C. Bruce Dellit, 1934). On each of the four sides of the imposing red granite memorial an amber window contains an image of the Anzac rising sun (which appears on the badge of the Australian military forces), and there is a stepped pyramid over the dome.

In the United States, several symbolic monuments of a Neoclassical bent contained Art Deco elements, such as the 1926 Liberty Memorial in Kansas City, Missouri, designed by Harold Van Buren Magonigle. Its focal element was a huge stone pillar, with monumental figures of Courage, Hope, Patriotism and Sacrifice carved towards the top; side structures included fountains and friezes, the latter with series of bas-reliefs and inscriptions honouring 'those who have dared bear the torches of sacrifice'. Paul Philippe Cret, the French-born Philadelphia architect, designed several war memorials in the United States and France. At Bellicourt, France, his early thirties United States Monument was a simple rectangular slab carved with high-relief allegorical figures, while that at Château Thierry was a Neoclassical temple form guarded by a massive stylized eagle behind a symbolic rendering of the Stars and Stripes.

English sculptor Charles Sargeant Jagger's 1925 Royal Artillery Memorial In London's Hyde Park Corner includes bas-reliefs in a realistic yet unmistakably Moderne style.

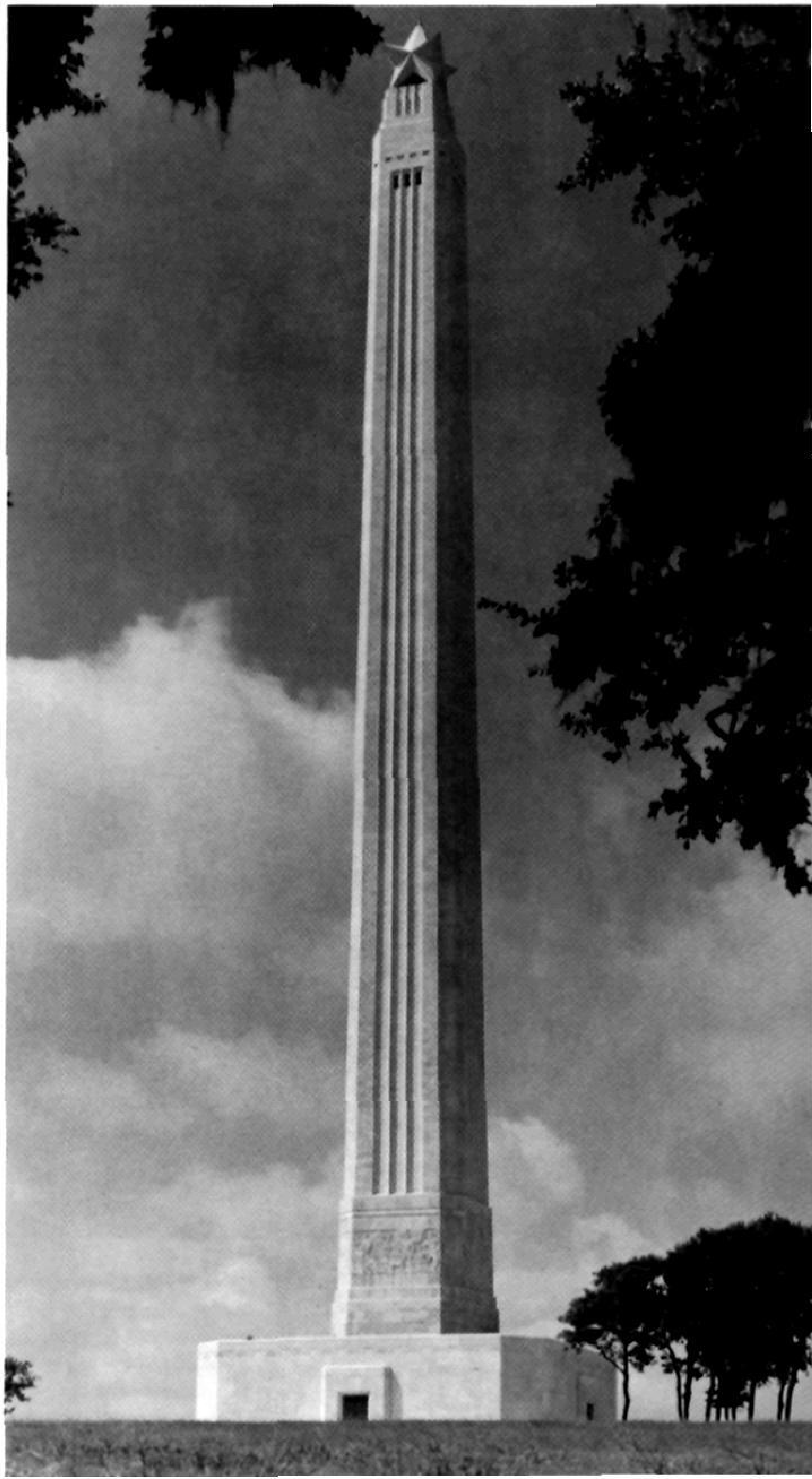
War memorials in France, Germany, Italy and England abounded, with many French examples designed by or made with the participation of some of that country's premier Art Deco sculptors. Notable memorials included those at Aisne, Reims and Nice. In Italy the belated realization of a visionary Antonio Saint'Elia design, the 1933 War Memorial at Como, was undertaken under the direction of Giuseppe Terragni, while in London Charles Sargeant Jagger's Artillery Monument at Hyde Park Corner conveyed a highly idealized, yet very human, spirit of camaraderie and conflict in its bas-reliefs of soldiers.

Even cemeteries contained gravestones, mausoleums and other structures in the Art Deco style. In 1934, R. Berger designed additions for the 1820 Passy cemetery in Paris: a stone entrance with a Moderne-metalwork gate and a stone pavilion decorated with bas-reliefs by Janthial. The gate comprised rows of zigzag bands, and a plaque with the word 'PA ' in a contemporary typeface appeared at the top. In Cavtat, near Ragusa, Czechoslovakia, the octagon, cruciform-plan Racic Mortuary Chapel (Ivan Mestrovic, 1920–22) presented a bold modern face using local and traditional elements. Mestrovic, a Croatian sculptor-architect, had studied in Vienna, and the pair of monumental angel caryatids flanking the entrance to the stone and marble chapel, as well as the bronze one atop the cupola dome, owed a debt to Secession buildings.



A spectacular finished project by Robert B. Stacy-Judd was the First Baptist Church in Ventura, California (*above*) of 1929-30; its stepped-pyramid central section recalled both Mayan ziggurats and the Grundtvig Church (see page 201). Most of his projects were never realized, such as the Philosophical Research Society in Los Angeles (*below*).

The forms of Moderne churches in North America ranged from classically inspired piles, such as the *c.*1931 Mormon Temple in Cardston, Alberta, Canada (*below*), to dramatic hybrids such as the Spanish Colonial Revival-cum-Art Deco Our Lady of Lourdes Roman Catholic Church in Los Angeles (*above*), designed by Lester G. Scherer. A forerunner of sorts to today's television ministry cathedrals was the 1933 Shrine of the Little Flower in Royal Oak, Michigan (*left above*), whose pastor, the Rev. Charles E. Coughlin, broadcast a popular radio programme from the Charity Crucifixion Tower (seen at left), which was sculpted by René Paul Chambellan.



Towering monuments of stone in the twenties and thirties, largely memorials to the fallen of the First World War, rose throughout Europe and the United States, and many included Moderne sculptures on their forms. In France, Marcel Loyan created the monument to the French artillery, the Crapouillots, on the plateau at Laffaux in Aisne (*opposite left*), and in Kansas City the huge 1921-26 Liberty Memorial complex (*opposite right*) was created by Harold Van Buren Magonigle, with Thomas and William Wight its architects. The stone pillar included figures of Courage, Hope, Patriotism and Sacrifice carved towards its crown, and ancillary structures included fountains and friezes honouring 'those who have dared bear the torches of sacrifice'. In Houston, the 570-feet high San Jacinto Monument (1938) (*right*), topped by a three-dimensional symbol of the Lone Star State, was for years the tallest such structure in the world.

A longtime, widescale 'adaptive use' of Art Deco architecture has been made in films and the fine and decorative arts. Indeed, ever since the years when Manhattan's skyscrapers began to define that city's silhouette, Hollywood film makers have been fascinated by the height, shape and decoration of these buildings. Everyone knows about *King Kong* (1933) and his travails on the Empire State, but Los Angeles' Bullock's Wilshire building figured in *The Big Sleep* (1946), and that same city's Eastern Columbia Building recently appeared in *Predator 2* (1991); its clock tower served as an arresting backdrop in promotional material for the film, indeed almost upstaging the eponymous star-alien. One of Frank Lloyd Wright's southern California textile-block residences, Milliard House, was used as a set for a party in *She* (1935), and no less than five models of the Chrysler Building featured as the far-off, fugitive Emerald City in *The Wiz* (1978), Sidney Lumet's black-cast remake of *The Wizard of Oz*; the film's production designer was Tony Walton, a longtime Art Deco devotee.

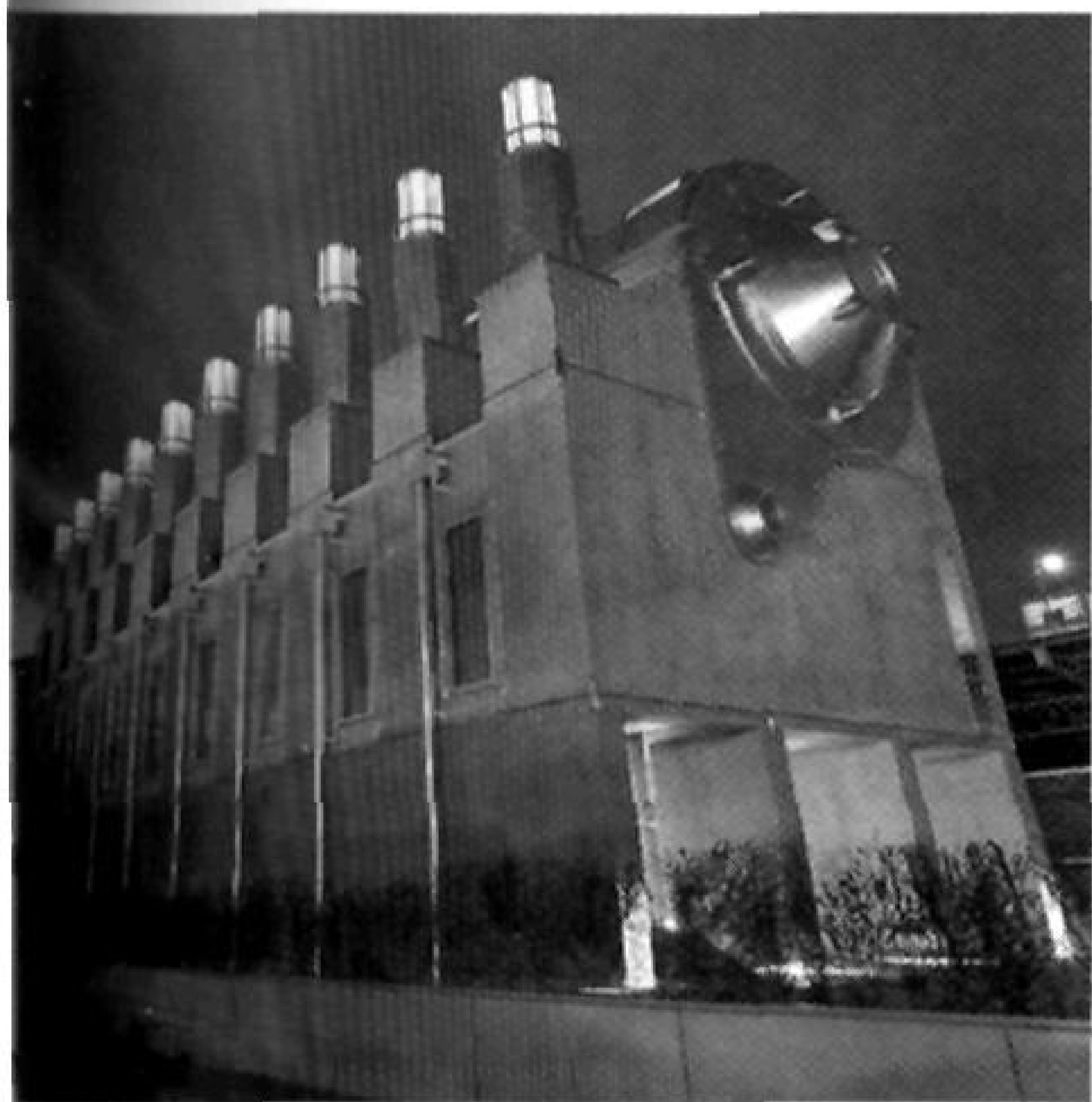
A number of films and plays which have featured visionary Art Deco-style buildings, from Fritz Lang's 1926 silent classic *Metropolis*, with its dizzying, claustrophobic mass of skyscrapers, to Frank Capra's *Lost Horizon* (1937), where the lamasery of Shangri-La was a Streamline Moderne Utopia, to David Butler's *Just Imagine* of 1930, whose vision of New York was, according to its designer, Stephen Goosson, inspired by Le Corbusier. In fact, the huge miniature set was closer in form and spirit to the visionary skyscrapers drawn by Hugh Ferriss in *The Metropolis of Tomorrow*, a collection of beautiful, highly influential renderings first published in 1929.

Dozens of films made use of skyscraper-inspired sets and even costumes, sometimes in amusingly inspired, inventive ways. Many stars' promotional photographs were taken against a *faux*-skyscraper backdrop. The films *Broadway* (1929), *Child of Manhattan* (1933), *42nd Street* (1933), *Broadway Melody of 1936* and *Broadway Melody of 1938* all featured dramatic backdrops of skyscraper-strewn skylines. Some were intended as authentic portraits of the city, while others were visionary. *Child of Manhattan* drew its images directly from Hugh Ferriss, for example; *Broadway* even includes a chorus line of 'skyscraperettes' wearing architectonic headdresses! Cedric Gibbons and Merrill Pye's fashion-show set for *Our Blushing Brides* (1930) comprised a huge obelisk fountain flanked by ornate grillework, very much in the Gallic mode. Parisian architect-designer Robert Mallet-Stevens in fact designed some sets for *L'Inhumaine* (1924), the earliest film to make use of modern architecture.

Art Deco buildings – real, but mostly imagined – were also the subject or inspiration for many paintings, sculptures, objects, and ephemeral and souvenir items in the nineteen-twenties and thirties (and indeed since the nineteen-seventies revival of interest in the style as well). For instance, there were souvenir green-enamelled-metal powder compacts from the Empire State Building that came in a stepped shape and featured incised geometric designs on the base-metal interior. Plastic-cased Air-King radios, designed by Harold van Doren and John Gordon Rideout around 1933, had a similar

Numerous designs – from furniture to buildings – by American architect Michael Graves have been informed by Art Deco (as well as Classicism), resulting in lively, colourful Post-Modern confections. The 1980-82 Portland Public Service Building (*above*), in Portland, Oregon, is basically a giant symmetrical cube, its façade enhanced by, among other elements, a garland of metallic ribbons – in effect, an update of the ornamental spandrels that adorned many Art Deco skyscrapers.

In Atlanta's High Museum of Art, Richard Meier took as his primary inspiration Le Corbusier's pure Modernism, but the 1980-83 structure also evoked the white-washed, multi-curved Streamline Moderne branch of Art Deco.



Some recent buildings do not so much echo Art Deco architecture as take their inspiration from other period objects, such as Shin Takamatsu's late eighties homage to industrial design: his gleaming, dramatically different Ark, a Kyoto dental surgery, evokes thirties locomotives (though it is a far loftier structure than a thirties American diner, which also had its roots in trains).

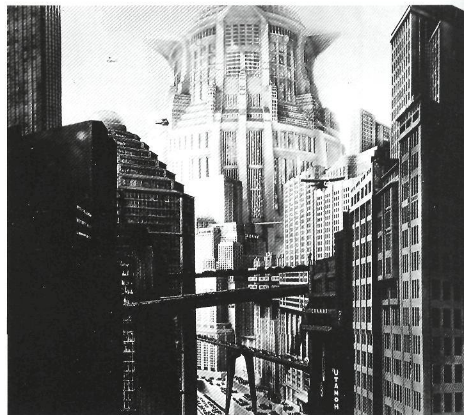
shape, and were available in bright red and lavender. Joseph Sinel's step-or scale for International Scale Corporation, *c.*1927, had a stepped silhouette smart lettering and other Moderne motifs. The souvenirs available from the 1939 New York World Fair – some 900 manufacturers were licensed to produce over 25,000 items – presented the Trylon and Perisphere in myriad guises, materials and colours: as blue-and-orange or blue-and-white plastic salt and pepper shakers; in the centre of a lavender-hued commemorative plate (designed by Charles Murphy and made by the Homer Laughlin Company); as a frosted-glass table lamp-sculpture; enamelled in yellow on a brass license-plate attachment (for official use only); and painted on rather un-Moderne-looking oval-backed kitchen chairs of wood. A set of twelve silver-plated commemorative spoons was made by the William Rogers Manufacturing Company of Connecticut, each bowl featuring a different fair pavilion, with Trylon and Perisphere at the top of each handle.

Art Deco architecture-inspired objects also included high-priced, deluxe items. A rather impressionistic interpretation of New York in metal was Erik Magnussen's elegant burnished- and gilded-silver tea and coffee service, called 'The Lights and Shadows of Manhattan', made by Gorham in 1927. Many vastly different architectonic furniture forms of Art Deco inspiration were created by prominent designers of the day: for example, Kem Weber's tall Streamline Moderne wood and metal side table (1928-29) and Paul T. Frankl's sturdy and eminently practical wooden 'skyscraper' bookcases, cabinets and desks of the late twenties.

Contemporary artists and sculptors have also produced images of Art Deco, with elements of the architecture informing such disparate endeavours as children's toys (three-dimensional models and robots) and advertising campaigns (for Absolut Vodka in 1991, wherein the words 'Absolut Miami' appeared below an Absolut-bottle-shaped cream, pink and green confection of an Art Deco building). Michael Graves's 'Plaza' dressing table of 1981, for Memphis of Milan, was a three-dimensional fantasy (but a usable one) intended to be a replica of both building and man. Frank Siciliano's eighties 'Manhattan Suite' – ten conference chairs carved of solid cherrywood, their details then hand-painted with automobile metallic lacquer – paid sturdy homage to Manhattan buildings (each weighs some 150 pounds). Native New Yorker Paul Schulze's 1984 Steuben Glass sculpture, *New York, New York*, comprised 'shimmering evocations' of the Chrysler and Empire State buildings (as well as the Woolworth Building and twin towers of the World Trade Center) cut into the vertical edges of a crystal column.

Indeed, from the evidence in film and the decorative arts of the potency of Art Deco architectural imagery, from the soaring skyscraper to the suburban cinema, from the Paris 1925 pavilion to the chrome-sheathed highway diner, it is clear that many of these disparate Art Deco buildings possess a unique fascination for us. Whether they exist today as handsomely maintained or sadly derelict structures, or as photographic images only, they continue to possess an evocative power that will perhaps one day prove to be timeless.

Shangri La's lamasery in Frank Capra's 1937 *Lost Horizon* (*above*) was a Streamline Moderne Utopia with a handful of high-style Parisian decorative elements (supervisory art director was Stephen Goosson), while Fritz Lang's 1926 *Metropolis* (*opposite centre*) was set in a sinister, monstrous maze of skyscrapers; its art directors were Otto Hunte, Erich Kettelhut and Karl Vollbrecht. On lighter notes, Ruby Keeler danced up a stairway flanked by jaunty Deco towers in Lloyd Bacon's 1933 *42nd Street* (*opposite below*), art-directed by Jack Okey and choreographed by Busby Berkeley, while Michael Jackson and Diana Ross 'eased on down' the Yellow Brick Road to an Emerald City of five Chrysler Buildings (*right above*) in Sidney Lumet's 1978 film musical *The Wiz*. Illustrated here is production designer Tony Walton's sketch for the elaborate set.



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