Attachment 8

Michael Zimny Thesis

ROBERT VINCENT DERRAH AND THE NAUTICAL MODERNE

By Michael F Zimny

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INTRODUCTION

In the 1920's and 1930's, a curious varient of the white box European International Style and its popular later variation, the so-called Streamline Moderne, developed: the Nautical Moderne or Le Style Pacquetboat,[1] a purely superficial application of nautical elements--portholes, tubular steel railings, even masts and funnels--to buildings of both expersions. The influence of the nautical in modern architectural design was a short-lived phenomena. It began nearly simultaneously in Europe and the United States in the early 1930's, reached its greatest popularity in the last years of the decade and disappeared almost completely after World War II.

Two of the premier examples of this expression in American design are the former bottling plant and warehouse for Coca-Cola Los Angeles (Los Angeles, 1936) and the Crossroads of the World Shopping Center (Los Angeles, 1936), designed by the architect/engineer Robert Vincent Derrah. It is my intention to examin in detail the career, these and related works of Robert Derrah against the intellectual and popular sources of the movement overall and determine their degree of representation or deviation from it.

Chapter I - The Ocean Liner in European Modernism

Le Style Paquetboat was a hybrid expression, the complex product of a multiplicity of sources. At its simplest, though, the movement was essentially a romantic one, in that it was a conscious search for a particular form to express contemporary thought regarding architectural modernity. Not unlike the Victorian romantic who sought design inspiration from early architectural styles or periods, the 20th century modernist sought his inspiration from a variety of previously considered non-architectural forms: factories, warehouses, grain elevators and transportation machines. In the latter category, the favored object for architectural emulation was the ship or, more specifically, the ocean liner. (Illustrations 1-3)

Through most of the first half of the twentieth century, the ocean liner was an object of an immense social and technological importance. It was celebrated as the ultimate product of technology and invention and hailed as "the largest thing that moves."[2] It was, indeed, save for a few skyscrapers, the largest singly designed object in the world.[3] The ocean liner had its beginnings as a purely utilitarian vehicle to provide weekly mail and passenger service across the North Atlantic between Europe and the United States. In these early years--the late nineteenth and early twentieth centuries--competition was keen among the various lines to establish a reputation for speed and reliability.[4] To this end, and to provide greater passenger capacities to accommodate

the ever-increasing immigrant traffic, ships began to grow in size and speed. In 1907, the British Cunard Line took the lead in liner speed and size by launching a pair of giant sister ships, the Mauretania and the Lusitania. Acknowledged as the first of the great liners, not only could each carry more passengers than earlier ships--over 2,000--but were much faster due to the more powerful and efficient steam turbine engine.[5]

Competition between the lines for even faster ships continued through the 1920's and the 1930's as each sought the prestige and greater profits of having the fastest liner on the North Atlantic run. But now, to gain even a small increase in speed necessitated the building of ships of unprecedented size to accommodate the required much larger power plant.[6] Apparently, though, the lines felt the increase in speed, however small, was justified and continued to build ever larger and faster liners. This race for the fastest and conversely the largest culminated in the launching of the North Atlantic's most famous trio of passenger liners: Cunard's Queen Mary (1936) and Queen Elizabeth (1940) and the graceful French Lines' Normandie (1935). Among the largest and fastest liners ever constructed, each measured over 1,000 feet in length and could accommodate over 2,000 passengers and a crew of 1,000.[7]

In their heyday prior to the Second World War, the popular image of these and other great liners regarding their

association with technology and design was best expressed by their stylish advertisements.[8] A poster for the German Lines' Europa, Bremen and Columbus symbolically aligns its nautical greyhounds with another prominent symbol of the day, the skyscrapers of New York. Expressing a greater association with speed, another depicts the razor-like bow of the Normandie knifing through the waters of the Atlantic. Still others, in attempting to suggest their liner's great size employed a more literal comparison and placed their ships directly against some of man's most famous land-based marvels. Amusing as they might be, such advertisements were a popular expression of the equation the liner enjoyed with land-based architecture, an association some designers would take very seriously.

One of the first land-based designers to propose a serious examination of the ocean liner by members of his profession was the Swiss-born architect Le Corbusier who devoted a chapter of his widely circulated Vers Une Architecture (1927) to the great ships. In a group of chapters subtitled "Eyes Which Do Not See", he praised the steamship as well as the airplane as architectural form-givers, owing to their apparent divorce from the past and especially from the detested "styles" of architecture.[9] The ship, he noted, was an architecture "pure, neat, clear, clean and healthy", a form marked by "good contrasts between solids and voids, masses and slender elements."[10] Similarly, he praised the great new hero of the 20th century, the engineer, as the

creator of such marvels that "in comparison with which cathedrals are tiny things."[11] Le Corbusier did take some liberties in this object-lesson, however, editing his photos to include only long shots of the liners and uncluttered promenade decks to present precisely the purist image he wanted.[12] Certainly he included no interior shots of the liners, at this time a maze of period rooms.

In some of Le Corbusier's own designs, there is the subtle but distinct suggestion of the nautical. This reference can perhaps be best noted in the roof terrace of his famous Villa Savoye (1930) which can, at an admittedly high level abstraction, be taken as the representation of the promenade deck of some great liner. (Illustration 4)

The German architect Eric Mendlesohn also spoke in favor of the ship. In an article for the Berline Tageblatt in 1924, he wrote of the ship as an "iron organism which, for the future, begs to decline your historical decorations."[13] Like Le Corbusier, he noted that the ship could be used as a visual reference for land-based buildings. He proposed the arrangement of windows in horizontal strips, much as rows of portholes, and the bracing of a building's corners as "the ship commands you to do from the outside."[14] The same romantic note was sounded by the De Stijl architect J. J. P. Oud in 1919:

> For it is beyond all doubt that the motor-car, machine, etc. correspond more closely to the socio-

aesthetic tendencies of our own age than do the contemporary manifestations of architecture.[15]

Aside from the praise of such prominent designers, the ship itself and seacoast architecture in general--lighthouses, piers, docks, etc.--received considerable attention in the leading architectural journals of the day. The Bremen, Conte di Savoia, Niew Amsterdam, Orion, Normandie and Queen Mary were some of the ships so illustrated as examples of noteworthy design. However, it was only the flashy passenger liner, not the more utilitarian freighters, warships and other vessels, that were so praised.

A reoccurring theme in many of these articles was the apparent similarities between naval and land-based architecture in regard to design: organization of space, economy of construction, use of materials, etc.[16] Particular attention was given to those liners which broke with tradition regarding interior design. Through the 1920's and the 1930's, most passenger liners resembled gigantic floating hotels, outwardly technological but inwardly luxurious as their owners sought to provide every passenger comfort.[17] The great ships either became a collection of period rooms as were the Lamorciere and Aquitania illustrated in Vers Une Architecture or, in the case of the later Queens and Normandie, a floating version of the 1924 Paris Exposition Internationale des Arts Decoratifs et Industriels Modernes.

The schism between interior and exterior design came under

increasing theoretical as well as economic criticism in the 1930's. Eventually some lines broke away from the traditional interior opulence and employed lay architects to create a new image. Remarkably subdued interiors for the period in naval architecture were created by the noted architects J. J. P. Oud and Fritis Spanjaarel for the Niew Amsterdam (1938), British architect Brian O'Rorke for the Orion (1935) and by American industrial designer Raymond Lowry for the Panama (1938).[18] It was for this reason that these ships were praised, as they neither resembled the popular Art Deco style of the larger liners nor the strangely nautical look land-based architecture was beginning to acquire.[19] Indeed, O'Rorke was praised for NOT having allowed the conventional nautical elements to enter the reception rooms of the Orion.[20] Passengers also noted the difference as design now seemed to flow between shore and sea and vice versa: the main Ballroom Bar and Grill-Room of the Normandie was described by one traveler as "very Le Corbusier . . . with modern steel chairs and glass all around."[21]

The tradition of seacoast building and its possible implications for modern architecture was also examined. In 1938, Architectural Review asserted that seacoast building represented "the best possible example of functionalism" and that it was for this reason that modern architecture was drawn to it.[22] Earlier, Review had discussed the primary nautical colors, black and white, and had also suggested

their possible application in modern design.[23] The message in all of this was clear: these buildings, owing to their extreme functionalism, were far ahead of their inland contemporaries and were suitable models for modern architectural emulation. (Illustration 5)

It was through this variety of urgings that the elements of the nautical gradually found their way into the pristine cubist designs of the modernist architects, eventually assuming a popular association with architectural modernity. The nautical reference was expressed most overtly in the numerous coastal marinas, yacht clubs and swimming pools such as at Frintonor and Morecambe that sprang up as a result of an immense interest in seaside activities and in the out-of-doors in general during the 1930's.[24] Further inland, the nautical feeling was more subtly suggested by an occasional porthole window or open deck. But there could be no denying the presence of the ship. As architect F. R. S. Yorke proclaimed in his 1934 textbook-like The Modern House:

> For a ship, constructed of steel girders and sheet iron, driven by machine, containing restaurants, kitchens, cabins, lounges, terraces and promenade decks there is no precedent . . . Here through the application of new methods to the solution of a modern problem, is a new facade with an architectural quality that is absent from our land-based buildings.[25]

Of course not all designers accepted the romantic machine

aesthetic of the avant-garde modernists. J. J. P. Oud for instance, while initially embracing the wonders of technology, could not, by 1925 bring himself to accept "the house as a machine for living" credo of Le Corbusier or the argument that "a liner can be compared to the Parthenon."[26] Reginald Bloomfield argued that the modernists were mistakingly equating beauty with efficiency in their adoption of the transportation machine in contemporary design.[27] But the modernist's love affair with the machine did not falter as neither did their use of the nautical metaphor and by decade's end, the nautical was firmly established in the minds of most designers as an expression of architectural modernity. (Illustrations 6-7)

Chapter II: The American Expression: The Streamline Moderne

In the United States, modern architecture developed into something quite distinct from that of Europe. While to a degree influenced by the dictates of the European modernists and their work, many modernist American designers found their inspiration in the "streamlined" forms of the industrial designers of the 1930's or in the machine, particularly the transportation machine, itself.[1] The association between the transportation machine and architecture can be noted as early as 1901 in Frank Lloyd Wright's praise of the engine, motor-car and battleship as "the work of art of the century."[2] Indeed Wright's own Robie House (1908) was referred to as a "steamship on land" and his Gilmore House (1908) as an air-plane.[3] Wright's Prairie School followers, Purcell and Elmslie, likewise drew attention to the possible relationship between architecture and the transportation machine:

> Where are we going to find a few architects who can realize that a building is no less a building because it runs around on wheels or scoots through the sky? . . . and we ought to be able to persuade a few architects that a Pullman sleeper is really vital architecture even if up to the present time no firm of architects has been given the opportunity to put a Colonial porch on either end or insert a couple of Palladian niches to balance up with the washrooms and make a really symmetrical facade.[4]

The influence of the transportation machine in the pre-streamlined phase of the American moderne can best be noted in William Van Allen's Chrysler Building (1929). The building's transportation references are many: a 30th floor brick work frieze depicts stylized automobile wheels, hubcaps and fenders and is further punctuated at its corners by sleek gargoyle-like projections resembling radiator caps. Inside, lobby murals display airplanes, dirigibles and automobiles in motion about a world map. In Los Angeles, a similar theme is depicted in a ceiling mural entitled "The Speed of Transportation" by Herman Sachs done for Parkinson and Parkinson's Art Deco Bullocks-Wilshire Department Store (1928).[5] Here locomotives, ocean liners, airplanes and even the Great Zeppelin are shown converging on a representation of the winged messenger Mercury. (Illustration 7)

The American notion of architecture as transportation reached perhaps purist expression in the curvilinear forms of the Streamline Moderne of the 1930's. The Streamline Moderne basically can be interpreted as an approach to design rather than a "style" per se; it being an attempt to superficially apply the principals of the industrial designer to all designed objects, including architecture, for reasons of greater beauty, economy and simplicity.[6]

The intellectual roots of the streamlined go back to the machine aesthetics of the European modernists which were popularized in the United States by such designers as Norman

Bel Geddes and Paul Frankl. The machine aesthetic is based on an acceptance of the machine as an entity capable of producing its own valid art.[7] While the machine had brought the ugliness of the Industrial Revolution and the death of individual craftsmanship, careful future design of its products based on greater simplicity and economy would not only serve to close the rift that had opened between and design during the Industrial Revolution but would also produce a designed environment more representative of the present age.[8] In Europe, this union between art and industry was realized only briefly at the German Bauhaus during the 1920's and had little effect on design overall.[9] In the United States on the other hand this union not only brought about an entirely new profession, industrial design, but its products enjoyed immense popularity and its design principals widespread applications.

The industrial design profession had its beginnings in the late 1920's as the first of its members--Norman Bel Geddes, Raymond Lowry, Henry Dryfus and Walter Teague in New York and Paul Frankl and Kem Weber on the West Coast--began work.[10] American industry quickly embraced the new aesthetic, transforming it into an advertising and economic instrument as it was discovered that commercial products apparently sold better if they looked better, especially if they looked "modern."[11] The magazine Product Engineering, the first of a growing number of publications to be concerned with the impact of visual design, so commented in its first issue:

> The art appeal has arrived as the strongest appeal in modern business. It is for the manufacturer to measure this new demand on the part of his customer. He must spare no pains and no expense in getting the best designs from the most skilled designers.[12]

The favored form of the streamlined industrial designers was the ovoid or teardrop which had been found to be the most efficient shape in decreasing wind resistance of an object when placed in the "stream line" of a motion-simulating wind tunnel.[13]

Always emphasis was on the single, unbroken line for, as Paul Frankl wrote in 1927, "Simple lines are modern. They are restful to the eye and tend to cover up the complexity of the machine age."[14] While it can be argued that the grim economic realities of the Depression did give some legitimacy to the industrial designers credo of simplification, thought and practice in industrial design had preceded the Depression by several years.[15] Americans had been and continued to be swept up in a love affair with technology and the machine to a greater extent than were their European contemporaries. During the prosperity of the 1920's Henry Ford had proclaimed the machine as the "new messiah". President Coolidge had similarly enshrined it as the "workingman's temple".[16] Now, even in the depths of the Depression, faith persisted that machine would eventually bring about a better future. And if one could not physically live in the future, one could at

least produce its imagined forms. This in essence was the romantic purpose of the streamlined: the creation of the future for all of the present to enjoy.

Architecturally, the favored image of the Streamlined Moderne was a flat, continuous facade marked by strong horizontals, ribbon-like arrangements of windows, rounded corners and entrances and a nearly total absence of relief. Materials, practically always all machine-made, included concrete, cement stucco, glass (especially glass block), chromed metal, decorative tiles, linoleum, Batielite, Formica, Vitrolite and other highly polished materials. With its clean, simple lines, the streamlined provided both an appropriately austere image for this decade of economic hardship while at the same time expressing the new notion of efficiency and modernity without the feeling of wealth the earlier Art Deco style had conveyed. At its best, the style was a commercial one, its blank facades expressing perfectly the no-nonsense impersonal nature of its factories or its shiny novelty providing the eye-catching image desired by its retail stores. In the latter case, many such designs were the result of inexpensive and therefore popular "modernizations" of older commercial buildings encouraged by numerous concerned firms such as the Libbey-Owens-Ford Glass Company in their "Modernize Main Street" competition of 1935.[17] (Illustrations 9-10)

In time, the American Streamlined Moderne acquired a

nautical reference similar to that of the European International Style again for the metaphor's supposed association with architectural modernity. As in Europe, the ship had been dubbed "modern" by some American designers and theorists, most notably Sheldon Cheney. In his influential The New World Architecture (1930) Cheney illustrates an ocean liner with the caption "The builders of the machines are teaching the architects."[18] Like so much of the streamlined style, the Nautical Streamlined involved the purely superficial application of nautical elements to its machined packaging, the same as had been done by the European modernists. Architectural modernity, in both cases, was literally only skin deep.

While the Nautical Streamline is represented in all sections of the country, it found perhaps its most exuberant expression in the more architecturally permissive climate of Southern California, particularly in Los Angeles. By 1935, the Streamline Moderne had in general become the "in" style in Los Angeles, especially for commercial design, replacing the Art Deco and Spanish Colonial Revival Styles of the 1920's.[19] Observed historian Henry-Rusell Hitchcock in this regard in 1940:

> Nothing in the east compares with the best sort in Los Angeles, if only because Eastern cities have not the motorized planning which has been achieved apparently without conscious direction.[20]

Indeed, the new streamlined packaging may have seemed particularly well-suited to express the dynamic image of this already auto-dominated society.[21]

Lacking a well-established architectural tradition, scores of designers quickly embraced the style producing hundreds of streamlined storefronts, offices, schools, factories and residences. Commercial masters of the style in particular included Stiles O. Clements, S. Charles Lee, Albert Martin, Wurdeman and Becket and, of course, Robert Derrah. Wurderman and Becket produced undoubtedly one of the area's outstanding purely streamlined designs in their 1935 Pan Pacific Auditorium in Hollywood. A veritable textbook example of the exuberance of the streamlined, the square corner is nowhere to be seen as the eye follows uninterrupted the building's rounded horizontals in one continuous sweep. Four fantastic pylon-shaped towers encircled by bands of projecting fins continue the same feeling above the building's entry. However, as funds for design were limited, the large auditorium within is largely an unadorned space.[22] In theater design, S. Charles Lee also worked in the streamlined, most exuberantly in his 1939 Academy Theater in Inglewood. Here the wall explodes into a fantastic collection of interlocking concrete cylinders that culminate in a pencil-thin corkscrew tower. Architect Stiles O. Clements used the pure streamlined in a monumental fashion in his Hollywood Park Turf Club (1937)

and again, with a nod towards the nautical, in Coulter's former Dry Goods store on Wilshire Boulevard (1938). (Illustrations 11-13)

In residential design, Milton Black and William Kesling flaunted the continued persistence of the more conservative period revivals in domestic architecture to work in the Streamline Moderne, with often a stronger sense of the nautical than their commercial counterparts. Black in particular became as much a master of the Nautical Streamline through his West Los Angeles apartments and residences as did Robert Derrah through his commercial work. Everywhere in Black's moderne work appear elements of the nautical--portholes, tubular railings, projecting wings, the white or buff color--in addition to the continuity of line and surface distinguishing streamlining in general. (Illustration 14)

On the eve of the Second World War the Streamline Moderne completely dominated both the world of architectural and industrial design across the nation.[23] But during and especially after the war, the streamlined began to decline in popularity as modern American architecture fell increasingly under the sway of the strict European International Style.[24] The International Style was, of course, no stranger to the United States or to Southern California. Particularly in Southern California, designers such as Rudolf Schindler, J. R. Davidson, Richard Neutra and Gregory Ain had worked extensively in it throughout the streamlined craze of the

1930's, although their work had played only a minimal role in the area's architecture overall.

The years of World War II witnessed an even more pronounced change in attitude towards the streamlined. Even though streamlined buildings continued to be built through the 1940's, they now received little or no representation in architectural journals. Perhaps the grim machines of the war served to theoretically cool the lofty aspirations of the machine-loving streamliners regarding technology's bright promises for the future.[25] Or perhaps in the new-found economic prosperity of the post-war years the need arose for a new image, a new fashion to replace this dated reminder of the bleak days of the Depression. In architecture, that new image was supplied by the International Style. By 1950 the dogmas of Internationalism were firmly established in modern American design and the Streamline Moderne dismissed as a naive gesture of the past.

Chapter III: Robert Derrah, Biographical Sketch

Robert Vincent Derrah was born 14 April 1895 in Salt Lake City, Utah, the only child of Samuel Vincent and Carrie Louise Derrah. Mr. Samuel Derrah, a native of Rockport, Pennsylvania, had begun his career working as a journalist for a number of newspapers, including the Troy (New York) Gazette and the Canton (Ohio) Sentinel. He moved west in February of 1880, marrying Carrie Louise Ten Eyck, also from Pennsylvania, in Newton, Kansas, on 19 October 1881. He worked for a time with the Atchison, Topeka and Santa Fe Railroad before settling in Salt Lake City to work for the Denver and Rio Grande Railroad. An ambitious worker, Mr. Derrah had risen to a management position with the railroad by the time of his son's birth and was able to raise him in a solidly middle class environment.[1]

Upon graduation from Salt Lake High School in 1914, Robert Derrah decided to pursue a technical career. Initially accepted at the distant Massachusetts Institute of Technology in mechanical engineering, he was forced to begin his study at the nearby University of Utah because of his father's poor health. Following his father's death in June 1915, he transferred to M.I.T. and completed the four-year program in mechanical engineering in three years. His formal instruction at M.I.T. was almost exclusively of a technical nature. Coursework included instruction in physics, mathematics, drafting and applied mechanics but not architecture.

Courses in machine drafting and the other mechanical arts however did provide Derrah with at least the graphic abilities to later enter the field of architecture as well as that of mechanical engineering.[2]

Upon his graduation in June 1918, Derrah returned to Salt Lake City to begin work as a mechanical engineer. He worked almost exclusively in this capacity for the next five years, as partner of the firm Felt-Williams-Derrah, later Williams and Derrah of Salt Lake City. The firm did primarily heating and ventilation work.[3] He also worked for a time with the Utah Copper Company of Bingham, Utah, devising a floatation process to more easily separate the copper metal from its ore. While the company profitted handsomely from his invention, Derrah, not having been able to patent the processes as his, received none of its profits.[4] While living in Salt Lake City, Mr. Derrah also married a long-time acquaintance, Miss Elizabeth Moreton, on 4 June 1918. They had one child, a daughter, Elizabeth Mary (Bettie), born 2 September 1922.

In January 1923, the Derrahs left Salt Lake City and came to Southern California. The Derrah's motivations were both economic and for reasons of health. As a child, Mr. Derrah had been afflicted with rheumatic fever, an illness that had nearly cost him his life. On earlier travels, the arid and more temperate climate of Southern California had proven beneficial to his condition and he now wished to take full advantage of it. Also, he felt the economic opportunities

were better in California than those of his native Utah.[5] Indeed, California, especially Southern California, was at the time experiencing a tremendous population increase and building boom. Over 2,000,000 people moved to California in the decade 1920-1930, 72% settling in Southern California. The city of Los Angeles alone posted a population increase of 661,375, or a gain of 114.7% for the decade.[6] Further, building permits in the city rose from $28 million in 1919 to $200 million by 1923, exceeded only in value by New York and Chicago.[7] Upon their arrival in this booming environment, the Derrahs lived for a time in Hollywood, eventually moving to the comparatively recently developed community of Beverly Hills in 1927, where they were to make their home for the next twenty years.

By the time of his arrival in Southern California, the field of architecture had caught Derrah's interest but exactly for what reasons are not known. If he had some lofty concept of the profession or of his role as a designer in it, it was entirely private, as he never wrote or spoke at any great length of his personal feelings regarding the profession.[8] Later, he would simply recall: "Architecture . . . had a bigger appeal to me (than mechanical engineering) and so I studied and worked into that. . . ."[9] While his motivations might certainly have been economic, one could also argue that his interest in architecture was a romantic one; that is, as an architect, he could do more than as an

engineer, namely design complete buildings rather than only their mechanical components. Certainly he was an accomplished engineer, draftsman and businessman; why not now employ those credentials as an architect?

Mr. Derrah never undertook any formal training in architecture, his knowledge of the profession either being self-taught or acquired while in the employ of others. He worked for a time in the office of Allison and Allison, a large Los Angeles firm at the time working in the popular Spanish Colonial and Beaux Arts Styles.[10] Derrah also worked for a private architect, Harlan Hewitt, doing residential work again in the Spanish Colonial Style.[11] There is no record of his having worked for a modernist "Art Deco" architect during the 1920's, although he was no doubt familiar with the richly ornamented style.

Robert Derrah began his own architectural practice in 1929, working at first out of his Beverly Hills home but later moving to the Bank of America Building on Santa Monica Boulevard in Beverly Hills. Having worked extensively in the employ of others, he desired his own, small office and established a private practice. With the Stock Market Crash and subsequent onset of the Great Depression, however, his first years were particularly difficult, although he did manage to stay afloat financially, mainly by falling back on his engineering skills.[12] He did some of his most interesting work in this capacity while working for Charlie

Chaplin and RKO studios in the early 1930's. For RKO, he assisted in the technical development of the studio's first sound stage, in addition to doing mechanical work in general. This was the era of the great musical in motion pictures and Derrah's exposure to such elaborate productions most certainly had an influence on his later architectural work. What other designers would only be willing to suggest, Derrah would create.

Robert Derrah's principal architectural works divide themselves into two categories: his commercial work done in varying abstractions of the Nautical Streamline or simply streamlined styles during the middle and late 1930's and his residential work done in the more traditional American Colonial and Spanish Colonial Revival styles that he produced throughout his career. It was in his commercial work that Derrah produced his most individual and distinctive designs. Indeed, he regarded himself primarily as a commercial architect, disliking the frequent alterations and revisions that accompanied residential work.[13]

In 1935, he did his first building for Coca-Cola, marking the beginning of a long and productive relationship with the company that would lead to numerous commissions in and around Los Angeles, including the famous 1936 downtown bottling plant. Derrah's work for Coca-Cola additionally seems to have established his name as a competent designer in the food products industry, as he later received commissions

to do food-processing plants similar to those he had done for Coca-Cola for Acme Brewery, Carnation Creamery, Dr. Pepper, Mission Dry and Nesbitt Fruit Products.[14] In the late 1930's a number of buildings for several film studios, perhaps as a result of his earlier engineering work, and also for the Southern California Gas Company, including an addition to their downtown Los Angeles headquarters were among his commissions.

As Robert Derrah wrote practically nothing on his work, his personal motivations behind his use of the streamlined and its nautical counterpart can only be guessed. His own technical background and strong interest in things mechanical in general--Derrah patented five inventions as an architect, including an automatic transmission in 1942--may have contributed to his interest in the machine-like style.[15] More than not, though, he probably employed the style to follow popular fashion: it was the thing to do. Similarly, as the style began to fall out of fashion in the 1940's, Derrah too abandoned its rounded forms. As Derrah was neither a sailor or a boat owner, the strong nautical overtones that characterize several of his designs suggest they were more an exaggeration of the nautical designs of others than done for a strong personal interest in the nautical.[16]

As an architect, Robert Derrah was dedicated to his work and the profession. A perfectionist, he demanded--and usually got--quality workmanship in most of his designs. Although he employed several draftsmen to do much of the

Chapter IV: The Coca Cola Building and The Crossroads of the World Shopping Center

Of the some half dozen Nautical Streamline buildings produced by Robert Derrah, his classic examples of this architectural expression are the Coca-Cola Bottling Plant and Warehouse (1936) and the central Sunset Boulevard building at the Crossroads of the World Shopping Center (1936). Both of these designs go far beyond the typical streamlined/nautical expression of the times to in reality become a pair of giant architectural sets; two outdoor theater pieces created by this lover of the mechnical and novel. In these extraordinary statements, their overtly nautical design becomes more a public relations tool than a statement of modernity. It was not so much the creation of a piece of contemporary design that was wanted here but more importantly the advertisement of a product or place.

The landmark flagship of the Coca-Cola Bottling Company of Los Angeles is undoubtedly one of the premier examples of the American Nautical Streamline: a wrap-around concrete and glass ship's facade built as part of a remodeling of the company's older Spanish-styled Los Angeles plant. It perhaps more than any other building of its genre exemplifies inherent theatrical quality of the poster-like streamlined as it becomes essentially a two-dimensional architectural presentation set on a boundless stage. (Illustrations 16-21)

The Coca-Cola Bottling Company of Los Angeles began as

a two-man operation in the basement of a building at Third and Los Angeles Streets in 1902.[1] After moving and expanding its operations several times over the next ten years, the company acquired its first building in the 1300 block of South Central Avenue, an industrial neighborhood immediately to the southeast of downtown Los Angeles, in 1915.[2] This location was to be both the company's administrative and production center for over the next thirty years. In 1923, the Barbee brothers--Stanley, A. K. and Cecil--acquired the company and embarked upon a sweeping program of expansion and improvement. Issuing some 10,000 shares of stock, they raised a million dollars that increased production to nine million bottles annually (1902 production had totalled only 92,000 bottles) and greatly increased distribution by constructing new warehouse facilities and increasing their fleet of delivery trucks.[3] The Los Angeles plant itself expanded several times during this period of growth until, by 1936, it occupied four separate buildings on Central Avenue. Early in that year, in order to both increase operating efficiencies and improve aesthetics, it was decided to remodel the four buildings into one.[4]

The four buildings Robert Derrah had to work with, comprising a bottling plant, two warehouses and a garage, were a group of two-story Spanish-styled structures of load-bearing masonry walls. The buildings occupied nearly a square site at the intersection of Central Avenue and 14th Street, stretching 290 feet along Central Avenue and 296 feet

along 14th Street. Externally they displayed the typical details of the Spanish Colonial Revival: low tiled roofs, ornamented grill work, etc. Within were contained the company's general offices, laboratories as well as production and storage facilities.[5]

Derrah first proposed remodeling the plant along its existing Spanish lines. His first design called for the creation of a classical facade detailed by a rusticated base, pilasters, a classical cornice and balustrade and the typical Spanish tile roof. The building's principal northwest corner was to have been marked by a large clocktower and cupola. Not proving acceptable, Derrah suggested, apparently at the urgings of president Stanley Barbee, the use of the ship as an overall design motif. Barbee had impressed upon Derrah that he above all else wanted the new design to be expressive of the freshness of his product and the cleanliness of its production in a period when soft drinks were often suspected of being impure.[6] To this end, Derrah proposed the hygienic steel ship as a design motif. Barbee, himself an avid yachtsman, accepted.[7]

Derrah's nautical proposal was an excellent one in several ways. Symbolically, the hygenic nature of his proposed steel ship equated perfectly with the hygenic needs of a modern bottling plant. Further, the symbolic association of the ship as machine made it an appropriate form for a modern bottling plant that methodically cranked out soft

drinks.[8] But even more practically for Coca-Cola, the design made good public relations sense, furnishing as it would a building-size trademark for the company and its product.

Derrah prepared most of the working drawings for his steamship in 1936 with some exterior revisions in 1937. His first nautical design proposed a rigid, boxy facade, similar in feeling and proportions to the earlier Spanish-styled proposal except for the addition of the nautical details. The corner tower was to be retained, save for the fact that its clock was to be now contained within a porthole and the entire composition surmounted by a Coke bottle. Later, Derrah opted for the present streamlined design, rounding the building's front corner and emphasizing its horizontal lines. The corner tower was replaced by a streamlined ship's bridge which was once again to be crowned by a Coke bottle. The bottle was never so erected but eventually found its way to the building's later 1941 single-story "stern" addition, which was also done in the nautical manner by Derrah.

Derrah rendered the exterior of his steamship as authentically as possible. The Central Avenue facade is detailed by two rows of portholes and a streamlined second-story catwalk with round-cornered doorways opening onto it. Similar rows of portholes and a series of three horizontal lines--the hallmark of the Streamline Moderne--mark the 14th Street facade. Except for its projecting Central Avenue

catwalk, the 35 foot exterior was rendered in typical streamlined fashion as a sheer, flat wall of concrete painted antiseptic white: the perfect image of the machine for this ship of industry set sail on a sea of commerce.

In the building's interior remodeling, Derrah essentially gutted and reworked an approximately ten foot wide strip of the older building's street sides in the nautical style as he had upon the exterior but with an even greater attention to detail and authenticity. In some ways the building's interior remodeling is even more remarkable than its nautical facade in that it could have been executed in any number of less exotic expressions. Apparently once the nautical direction was established on the exterior, it was decided to continue with it throughout. In plan, Derrah located the plant's production machinery--bottling machines, sterilizers, carbonators, water-softeners, etc.--on the building's ground floor and its offices and laboratories on an overhanging mezzanine level. The executive offices, including that for Mr. Barbee, he located in what had been the old warehouse number three, and the large General Office in warehouse number two.

It was in this group of offices and in their connecting passageway that Derrah produced his most extraordinary nautical design. Done almost entirely in pine, the mezzanine's passageway suggests perfectly the promenade deck of some great ocean liner with its simulated steel columns, ceiling

beams and applied wooden "rivets." Louvered round-headed doors, portholes and a high wainscoating carry the nautical theme on the gallery's office side. So intent upon creating the illusion of a ship was Derrah that he provided a pair of davits to accommodate a life boat (never installed) on the mezzanine's over-hanging side and required persons utilizing the mezzanine from the production floor to use a vertical ship's ladder rather than a staircase. Also present on the mezzanine were the standard ship's ventilators, which however were functional, serving as bottlecap hoppers for the ground floor's crowning machines.[9]

Most of the offices opening onto the mezzanine were likewise done in a nautical manner. A small ante-room at the head of the passageway's front entry stairs included an elliptical porthole, deckchairs, life preservers and a rounded wall panel painted cobalt blue to simulate the effect of the sky.[10] The stairway serving this room from the first floor lobby, done in stainless steel and aluminum, also spoke of the machine aesthetic. Only in Mr. Barbee's office did Derrah depart from the nautical theme, here producing a fully paneled Georgian room complete with marble fireplace and retractable overhead skylight.

In 1975, Coca-Cola again embarked upon an extensive remodeling of its Los Angeles plant as it was decided to renovate the building to contain solely the company's corporate offices. In the $3.5 million project by Stanley

Gould and Associates, the old production area was completely gutted and replaced by a two-story office area.[11] A portion of one of the original buildings facing 14th Street was similarly demolished to facilitate the creation of an open inner courtyard. Save for but a small section of mezzanine and Mr. Barbee's old office, most of Derrah's interior work was unfortunately destroyed in the course of renovation. However, the building's exterior nautical character in large part was carefully preserved and indeed reinforced by rendering the facade with a red "waterline" stripe and a black "hull" base. Once again smartly packaged, the flagship was the following year named an historic-cultural landmark by the city of Los Angeles.

The Crossroads of the World Shopping Center on Sunset Boulevard in Hollywood was a much larger and more complex undertaking than the Coca-Cola remodeling but similar in that its combination of moderne and period styles was intended to give the Center a distinct and easily identifiable image. Like Coca-Cola, Crossroads stands as some vast theatrical set: a sham architectural representation of the several international cultures advertised for sale in its various shops. (Illustrations 22-25)

The Crossroads of the World was conceived by Mrs. Ella E. Crawford, the widow of former Hollywood real estate man Charles H. Crawford, basically as a Hollywood promotion. In announcing the project in February 1936 she indicated:

> It is my way of showing faith in Hollywood. I feel we have often failed to take advantage of the natural beauty and international recognition which are ours. Visitors coming here expect to see something beautiful and unusual, in keeping with the many ideas of beauty and culture given widespread publicity in some of our motion pictures.[12]

Crawford wished the Center to be a highly distinctive civic and commercial attraction composed of high quality shops and professional offices. In keeping with its old world theme, she specified that it was to be exclusively pedestrian, much in the manner of the later inclosed shopping mall. Construction of the Center was begun on February 1, 1936, and was completed in October of the same year. In the Center's gala opening on 29 October, noted Hollywood film players, such as Ceaser Romero, Boris Karloff, George Murphy and others, each representing one of the Center's 35 nations on display, assisted in the opening of this "miniature city."[13]

The Crossroads of the World is built on a roughly "T" shaped site, measuring 540 feet long and approximately 115 to 200 feet wide. Main access to the Center was provided by a 200-foot frontage on Sunset Boulevard, and side access by a 113-foot frontage on Selma Avenue and a 50-foot frontage on Las Palmas.[14] In plan, Derrah located the Italian and French shops in the west group of buildings opening onto

Sunset Boulevard and the Spanish and Mexican directly opposite these. These two-story concrete buildings are in part a remodeling of an existing pair of apartment buildings owned by Mrs. Crawford.[15] At the Las Palmas entrance Derrah placed a series of smaller one-story frame buildings supposedly suggestive of the "Cape Code and Early American" periods. The shops of Northern Europe are located in the Center's Selma Avenue entrance in a series of steeply roofed, half-timbered frame buildings arranged around a central walkway/plaza containing a fountain. In this so-called "Continental Villa" is also located the Center's small lighthouse with a revolving beacon.

Located between the Center's pair of buildings facing Sunset Boulevard is the center piece of this architectural montage: a two-story Streamline Moderne ship supporting a 45-foot tower surmounted by a revolving globe of the world. This extraordinary piece of design is the Center's crowning glory: a flashy piece of architectural advertisement in the finest tradition of the Streamline Moderne, thumbing its world's fair-ish tower and nautical styling to all those passing on Sunset Boulevard and proudly proclaiming itself as the symbolic bringer of the Center's exotic wears.

Physically, the Crossroad's "tug boat" measures 150 by 20 feet and contained six ground floor stores and one second story office. The building's front plate glass "bow" measures 28 feet in diameter and serves to support the

building's 45-foot concrete tower and revolving globe. The tower is in itself an outstanding expression of the Moderne. Beginning with an 18-foot base buttressed by four corner ziggurat-like pylons, it tapers gracefully upward as a collection of four streamlined pylons to a 6-foot wide crown to receive its one-ton, 8-foot diameter metal globe.[16] As the Center's advertising symbol, the tower is appropriately lighted the entire height of its corner pylons by red neon.

Behind the tower, the nautical theme returns in the amidship's second-deck "pilot house" with its porthole windows and ventilator-punctuated deck. Nautical detailing is correct to the deck's round-headed doorways, tubular metal railings and the familiar applied wooden "rivets". The ground floor, given its retail function, is done almost entirely in plate glass. The nautical is suggested again by the porthole windows and a blue tile "waterline" base. Interior detailing--rounded display cases, stylized fluted trim and circular recessed lighting fixtures--are typical appointments of the Moderne. The building terminates in a sweeping "stern" complete with flagstaff.

Although similar to its nautical counterpart, the Coca-Cola building, the Crossroad's design, given its retail rather than industrial function, differs noticeably in some ways from it. Addressing both the pedestrian and passing motorist, the Crossroads building is of a much smaller scale than the more massive ocean liner-like Coca-Cola building, which,

given its industrial location, really addressed only the passing motorist. A complete building rather than a surface remodeling, the Crossroad's design also better represents the ship as a three-dimensional object, suggesting more of the ship's raised superstructure, especially through its second deck pilot house, than its flat porthole-lined hull as does the Coca-Cola building.

The Crossroads of the World has enjoyed a generally successful history and continues to attract high quality merchants and offices in spite of the Center's changing neighborhood. The Center has suffered none of the severe alterations of the Coca-Cola building but rather has been recently restored to much of its original appearance and placed on the National Register. It also has been designated a Cultural-Heritage landmark by the city of Los Angeles.

Chapter V: Related Commercial Designs

Oddly enough, it is Robert Derrah's LESS nautically streamlined buildings that not requiring or perhaps not permitting the extreme architectural salesmanship of Coca-Cola or Crossroads of the World, have a greater sense of the architectural modernity. One of Derrah's finest industrial designs produced in this more subdued category was the general offices and plant for the Nesbitt Fruit Company of Los Angeles in 1937. In plan, the building in not unlike the Coca-Cola plant: a large open production space with a surrounding band of private offices on two sides. In elevation, Derrah streamlined this encircling band, rendering it as a long, flat wall. Its entrance corner he rounded in typical streamlined fashion, giving it additional emphasis by raising a low parapet wall which steps up slightly to the corner. This parapet he pocketed with a favored moderne ornamentation: a row of circular depressions of "buttons". On both sides of the glass block entry, he placed the token nautical symbol of modernity, the porthole.[1] (Illustrations 26-27)

Derrah, however, had intended to use the nautical more literally as he had in the Coca-Cola and Crossroads designs in a 1939 remodeling of the plant's laboratory. Here he proposed a literal nautical treatment, utilizing the familiar portholes, wooden rivets, louvered doors and ventilators of his earlier masterpieces. Perhaps he was again symbolically trying to suggest the association between the ship

and laboratory hygiene or cleanliness. Whatever his reasons, the design unfortunately was never carried out.[2] (Illustration 28)

Derrah again used the streamlined in a 1936 addition to a Beverly Hills restaurant. Much in the manner of the widely published storefront designs of Raymond Lowry and Walter Teague, Derrah proposed a streamlined, poster-like facade in chrome, plate glass and neon. On the restaurant's long street side he placed a long streamlined window and a five-foot plate glass porthole. For added glitter, he set the building on a polished vitrolite base, chrome plated its two entrance doors and wrapped it in colored neon. The resulting design represents perfectly the archetypal storefront of the 1930's: a smartly wrapped package advertising both the shiny modernity of its materials as well as its interior services or products.[3] (Illustration 29)

In multi-story design, Derrah utilized the streamlined in his 1940 addition to the Southern California Gas Company in downtown Los Angeles. Done in reinforced concrete and finished with a gleaming white layer of stucco cement, the facade is distinguished by a nearly completely glazed central section and a floating pair of raised side wings that curve inward to meet the central section. On the ground floor, which was originally used as a products' display area, a rounded entrance and large plate glass display windows continued the moderne theme.[4] A single four-foot porthole

looms above the composition in the building's mechanical tower. The whole composition is very clean, machined and, again, very packaged, every inch the quintessential streamlined building. (Illustration 30)

In some of his other commercial designs, however, Derrah abandoned the streamlined in favor of the more boxy and stylized detailing of the Classical Moderne. Unlike the flashy streamlined, the classical moderne suggested greater sense of dignity or pretension, aptly befitting most of its buildings, usually of a governmental or institutional function.[5] A film building he did in 1937 for the National Screen Service in Los Angeles illustrates his work in this style. A heavy, two-story concrete building that stood on Vermont Avenue, National Screen has none of the flowing surfaces or rounded forms that mark his streamlined designs. Rather, it has a more symmetrical, classically proportioned facade with strong vertical and horizontal lines. Much in the Classical Moderne manner, its two pairs of stylized piers or pilasters lack the expected bases or capitals. There is the suggestion of a cornice at the building's parapet but it is reduced to resemble a line of simple raised figures. The row of circular "buttons" Derrah had used in a concave fashion in the Nesbitt plant here he brought out from the wall in two rows between the first and second stories. More decoratively, two circular medallion-like panels depicting the Western Hemisphere and an eagle atop a stylized flagpool detail the building's parapet.

The porthole is this time relegated to the single front entrance door.[6] In an earlier 1937 proposal for the same company's San Francisco film building (not built), Derrah had proposed using the same stylized cornice, medallions and convex buttons but rounded this building's front corners in a more streamlined fashion. (Illustrations 31-32)

In another film building, this one for the Cinecolor Corporation of Burbank, Derrah combined the rectilinear of the Classical Moderne with the curves of the streamlined. In this concrete design, he gave the building an overall sense of formality by again producing a symmetrical facade and marking its entrance with a stylized moderne tower. The streamlined is suggested by the building's long horizontals, rounded front corners, resembling almost fluted quarter-columns, and in the sweeping curves flanking the building's entrance. The nautical metaphor appears in the building's six carefully placed portholes.[7] (Illustration 33)

Yet farther removed from the streamlined aesthetic are a number of other even more distinctly Classical Moderne buildings Derrah designed for Coca Cola around Los Angeles during the 1930's. A year prior to designing the company's flagship, Derrah received his first commission from Coca Cola to design a small sub-warehouse for the company in Pasadena. As they would later desire in their Los Angeles plant, Coca-Cola above all wished the design of their Pasadena facility to be suggestive of the cleanliness of their product's production

and also of its famed "sparkle". The building was further to have a substantial, dignified appearance.

To this end, Derrah produced a straight-forward Classical Moderne design with additional stylized Georgian elements to provide the desired sense of formality. To suggest the "sparkle" effect, the concrete building was painted a brilliant white and then sprayed with a layer of reflective mica particles. On the front or Colorado Boulevard side of the warehouse, Derrah focused attention on a centrally-placed classical window flanked by a stylized pair of fluted pilasters and crowned by a broken pediment containing an elongated urn. Curious half-pilasters crowned by very stylized capitals flanked both sides of the warehouse's two overhead doors. Other classical details included the suggestion of a pediment by the building's front stepped parapet, a pair of oval windows and a row of fluted piers but lacking bases or detailed capitals on the building's long side. In all of this, there is a certain feeling of naivety that perhaps belies Derrah's self-taught knowledge of architecture as he struggled to combine the past with present fashion. If nothing else, it indicates that Robert Derrah was at his best as Moderne rather than period architect.[8] (Illustration 34)

As he would do later in the Los Angeles flagship, Derrah proposed crowning the Pasadena warehouse with a giant coke bottle. But instead of a merely upright bottle, he envisioned

a looming canted bottle, its contents spilling into a ice-coated basin directly above the Georgian frontispiece. Though never executed, this is the first evidence of Derrah's use in the fantastic forms that would characterize his later work for Coca Cola and Crossroads.[9] (Illustration 35)

The Pasadena design must have been well received by Coca-Cola for three years later/he produced a very similar design for the company in Waco, Texas, his only commercial design built outside of California. Like the Pasadena facility, this design had the same combination of the past and present. Historical details included the same curious half-pilasters at the front entrance and flanking the side overhead doors, as he had used on/the Pasadena warehouse, a heavy classical entrance with a projecting cornice and urns and the suggestion of a pediment by the sloping front parapet. The Moderne is in turn reflected by the building's second story corner windows--a detail seen nowhere else in Derrah's work--numerous portholes and, in good streamlined fashion, a row of projecting fins above the front display windows. (Illustration 36)

As the passion for streamling began to wane in the 1940's, Robert Derrah too abandoned its curvilinear forms in favor of the more staid rectilinear of the International Style which was clearly on the upswing. Exemplifying most of his later commercial work is his 1940 bottling plant for

Dr. Pepper in Los Angeles. Here the cool, static order of the grid replaced the exuberance of his earlier streamlined designs as the building no longer advertises the ship or the machine or any other architectural novelty but simply its own design. Moderne architecture became simply modern architecture. Though Robert Derrah would continue to practice architecture through the first six years of the 1940's, the theatrical novelty of his favored Streamline Moderne falling out of fashion, his best work was clearly left behind.

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[1] As used to describe the Nautical Moderne in Richard B. Oliver, The Oceanliner: Speed, Style, Symbol (New York, 1980), p. 38.

[2] Maddocks, Melvin, The Great Liners (Alexandria, 1978), p. 6.

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[5] Oliver, p. 9.

[6] Oliver, p. 10.

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[3] Gebhard, p. 15.

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[5] The mural is located above the store's rear porte-cochere.

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[7] Cheney, pp. 23-24.

[8] For a discussion of machine aesthetics as related to architectural design see Jeffrey L. Meikle, Twentieth Century Limited: Industrial Design in America 1925-1934 (Philadelphia, 1979), pp. 19-38.

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15

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24 Even at its zenith of popularity, the Streamline Moderne was not without its critics. See for example "Architect Predicts Short Life for Streamlined Buildings", Architect and Engineer 137 (June, 1939) and "Too Much Streamlining", Architect and Engineer 137 (May 1939).

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10 From interview with Mrs. John Henry Jensen, 16 February 1982. For a discussion of the work of Allison and Allison see "The Recent Architecture of Allison and Allison", Architect and Engineer 135 (June, 1938), pp. 12-34.

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13 Interview, 7 December 1981.

14 Obituary, Southwest Builder and Contractor 18 October 1946, p. 5.

15 Derrah patented five inventions: 1) Automatic variable speed transmission (8 September 1942), 2) Fruit squeezer (22 May 1934), 3) Illuminated ornament and sign (22 May 1934), 4) Modulating control device (9 June 1942) and 5) Torque transmission device (4 June 1935).

16 Interview, 7 December 1981.

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18 Obituary, The Los Angeles Times 10 October 1946,

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1 C.C.L.A.: Coca-Cola Bottling Company of Los Angeles, p. 3.

2 C.C.L.A., p. 14.

3 C.C.L.A., pp. 4-5.

4 C.C.L.A., p. 6.

5 From photographs in the collection of Mrs. Elizabeth Jensen, Beverly Hills, California.

6 From personal recollections of Mrs. John Henry Jensen, 7 December 1981. Derrah apparently first proposed using the nautical motif.

7 "The Coca-Cola Plant", California Arts and Architecture 50 (November 1936), p. 43.

8 Gebhard, David and Harriette Von Breton, L.A. in the Thirties (Los Angeles, 1975), p. 43.

9 Observations made from photographs in the collection of Mrs. Elizabeth Jensen and drawings supplied by Coca-Cola Los Angeles.

10 "The Coca-Cola Plant", p. 43.

11 Los Angeles Times 13 June 1976, part VII, p. 2.

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13 Derrah, Robert V., "Unique Treatment of Hollywood Shopping Center", Southwest Builder and Contractor 13 November 1936, p. 13.

14 Los Angeles Times 29 October 1936, part I, p. 4.

15 Derrah, p. 13.

16 Observations from drawings and photographs in the collection of Mrs. Elizabeth Jensen.

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1 From drawings and photographs in the collection of Mrs. Elizabeth Jensen.

2 The 1937 laboratory is still in place.

3 From drawings in the collection of Mrs. Elizabeth Jensen. The design was never executed.

4 From drawings supplied by the Southern California Gas Company and photographs in the collection of Mrs. Elizabeth Jensen.

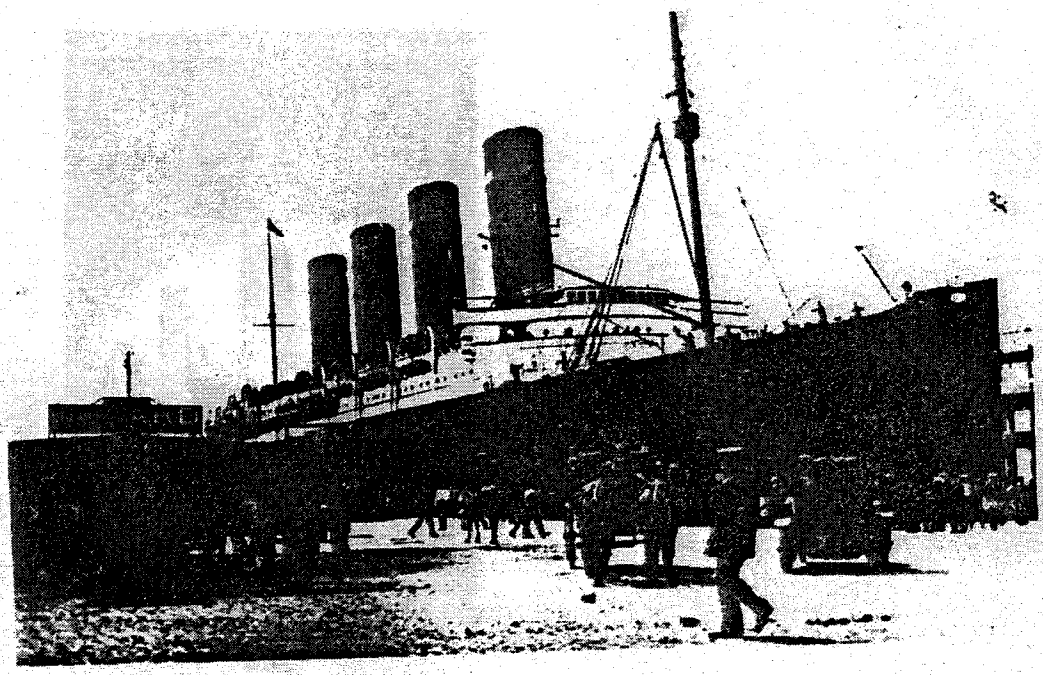
5 The Classical Moderne became closely associated with the architecture of the federal government.

6 From photographs in the collection of Mrs. Elizabeth Jensen. The building was razed in the mid-1960's to make way for the Santa Monica Freeway.

7 From photographs in the collection of Mrs. Elizabeth Jensen.

8 From drawings and photographs in the collection of Mrs. Elizabeth Jensen.

9 The Building was converted to a chuch in 1962.



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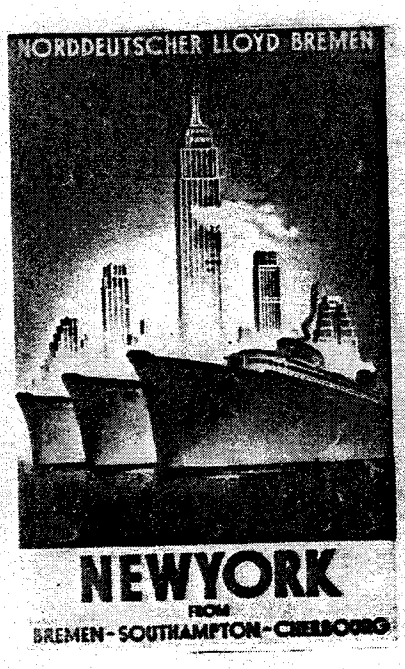

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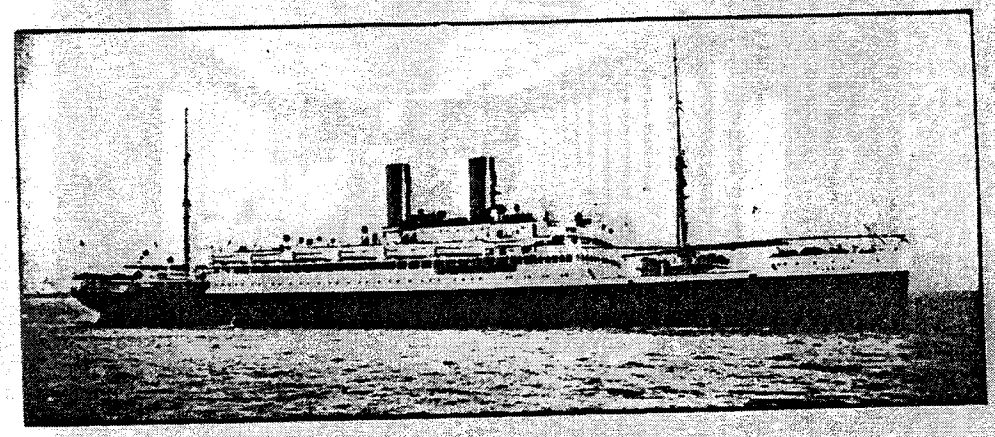

THE "FLANDRE" (CIE. TRANSATLANTIQUE)

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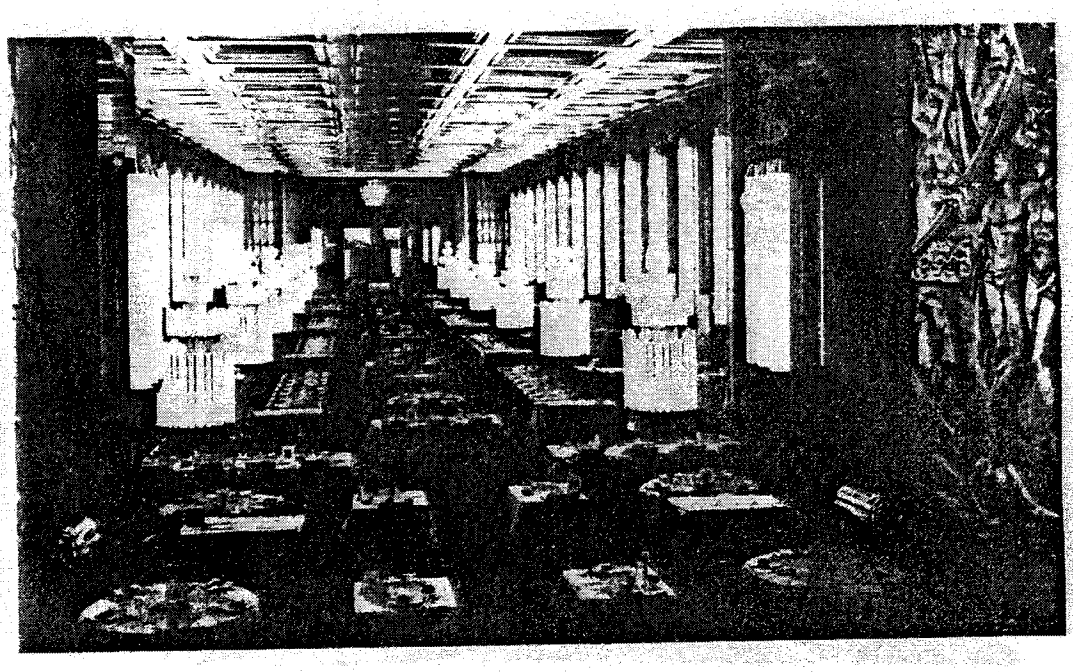

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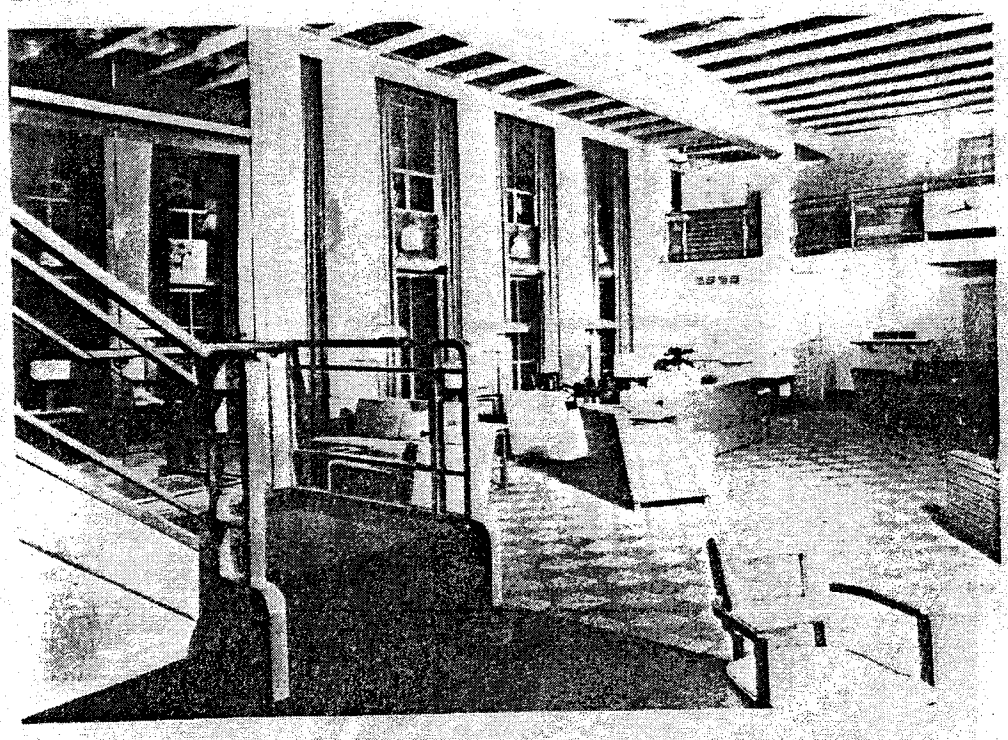

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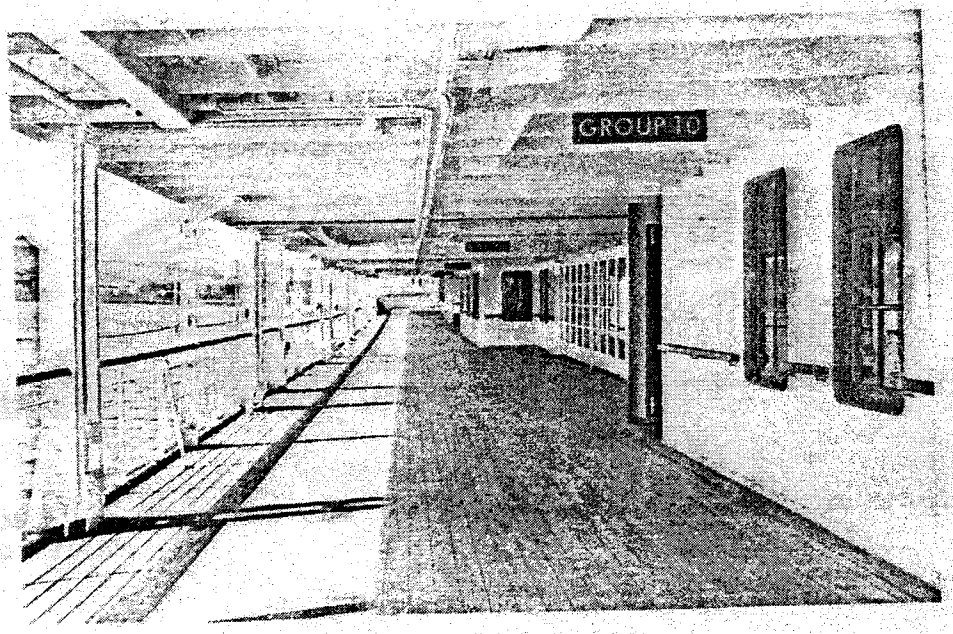

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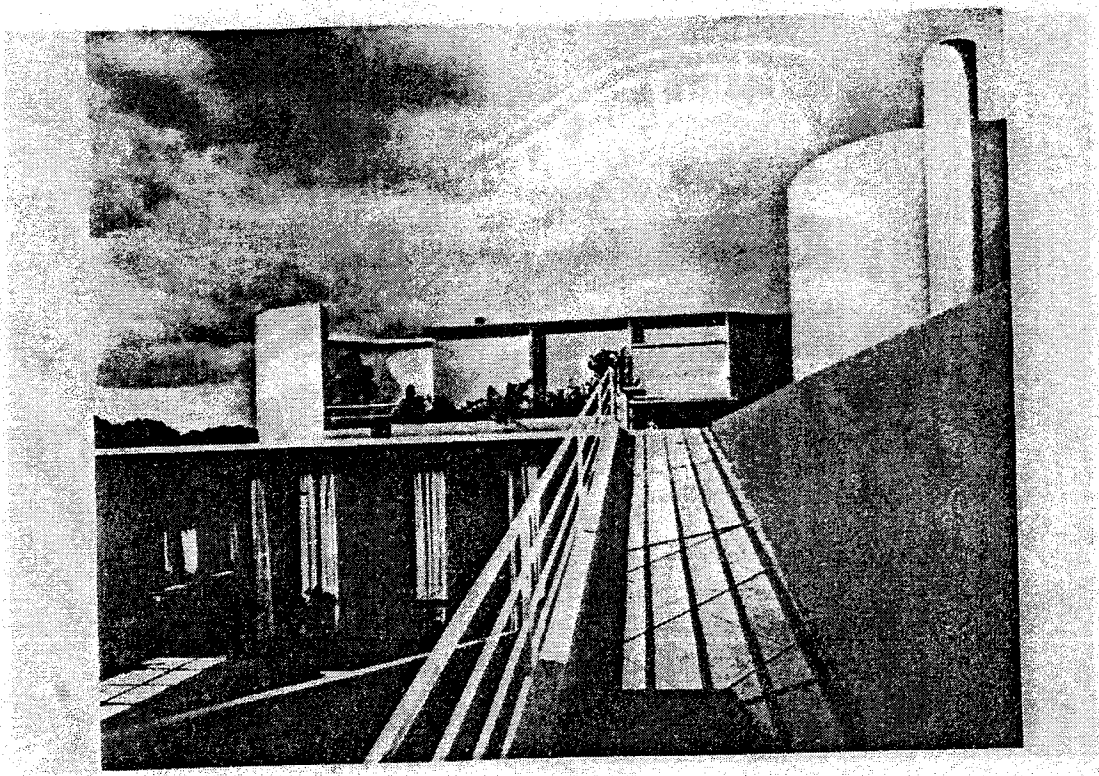

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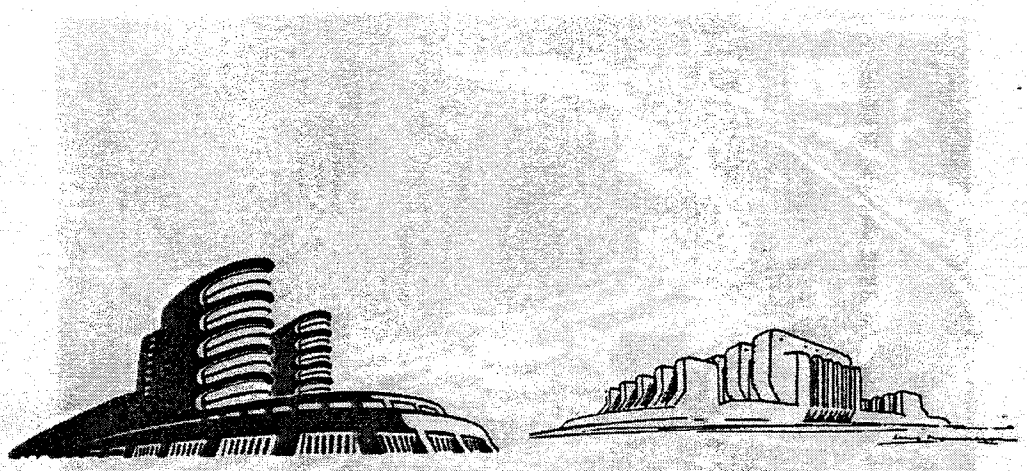

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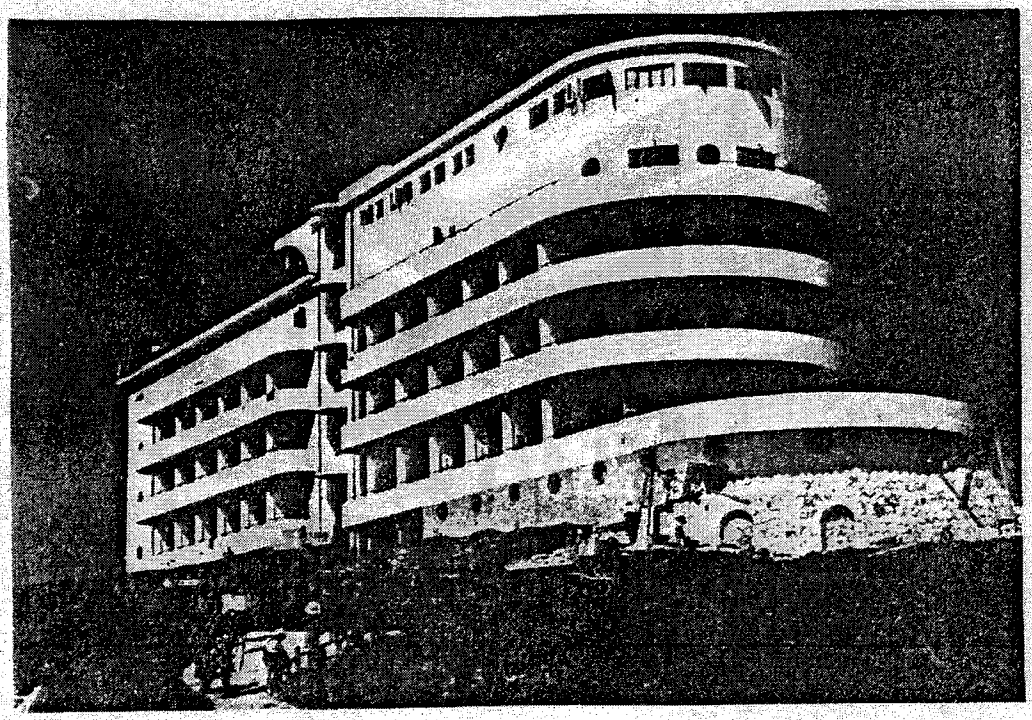
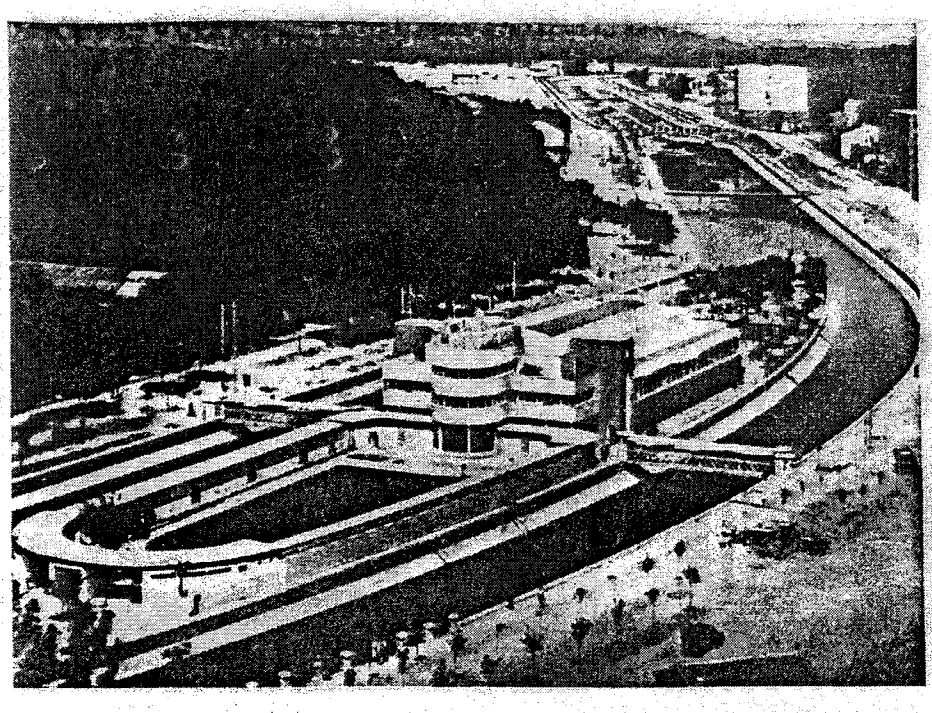
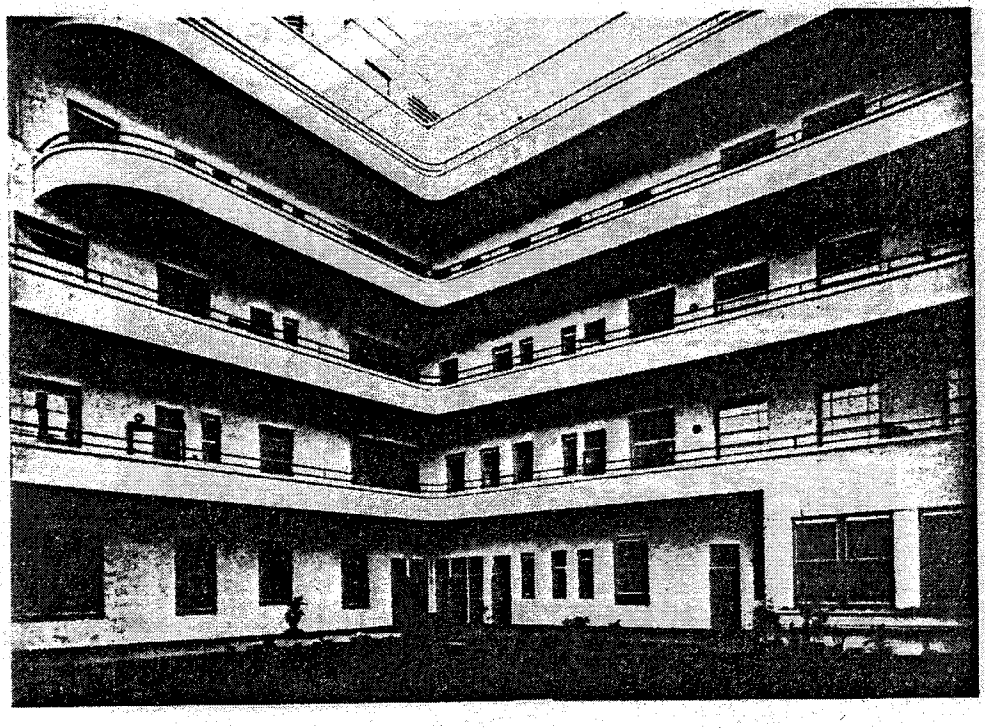


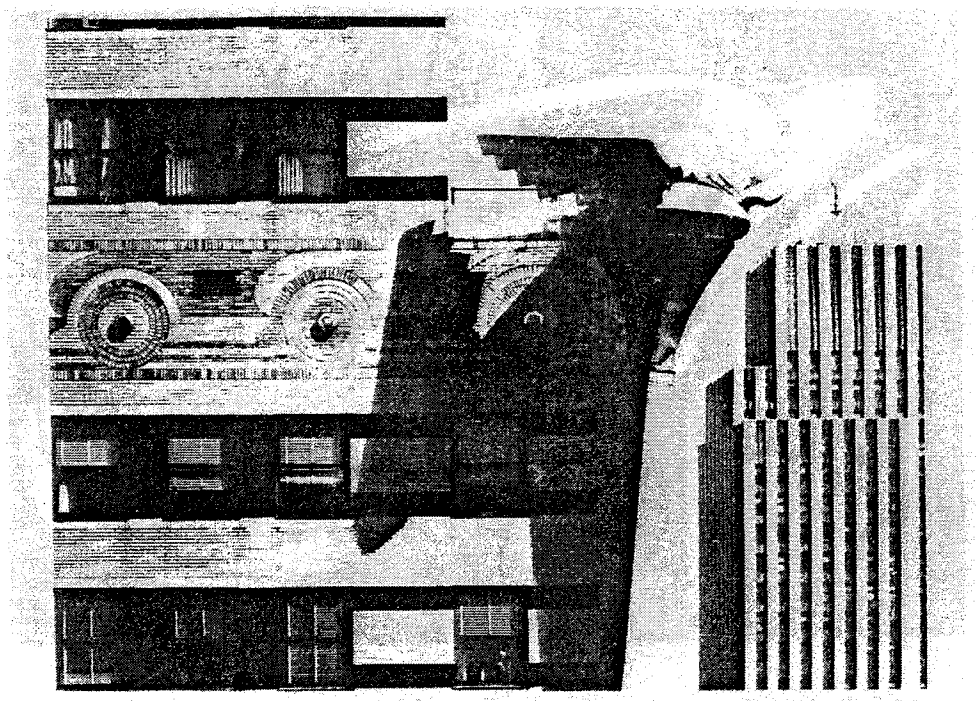
Illus. 11. Hotel Bellona, Efforie, Romania, G.M. Cantacuzene, 1934.



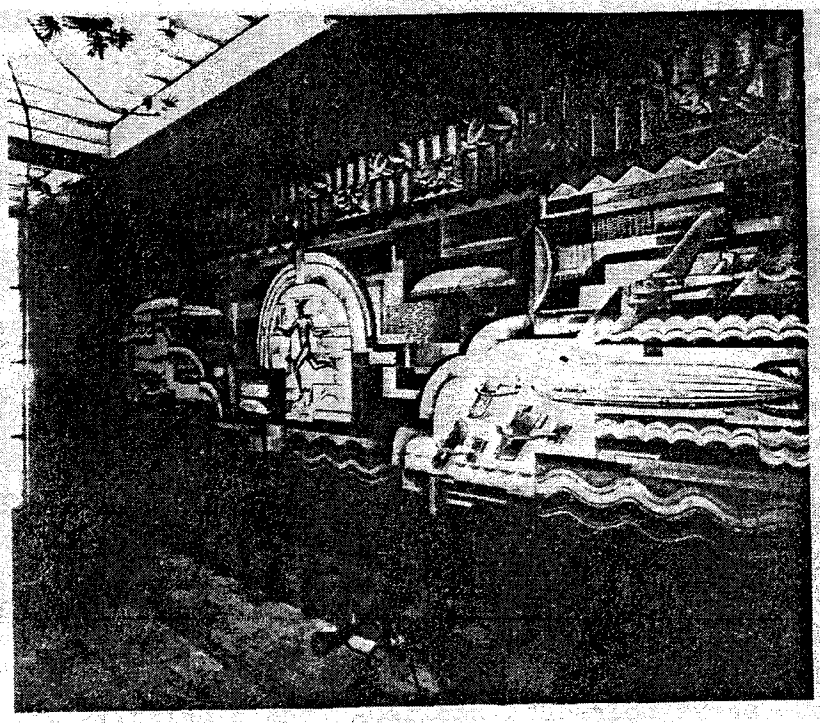
Illus. 12. Swimming pools, Madrid, G.M. Cantacuzene, 1934.



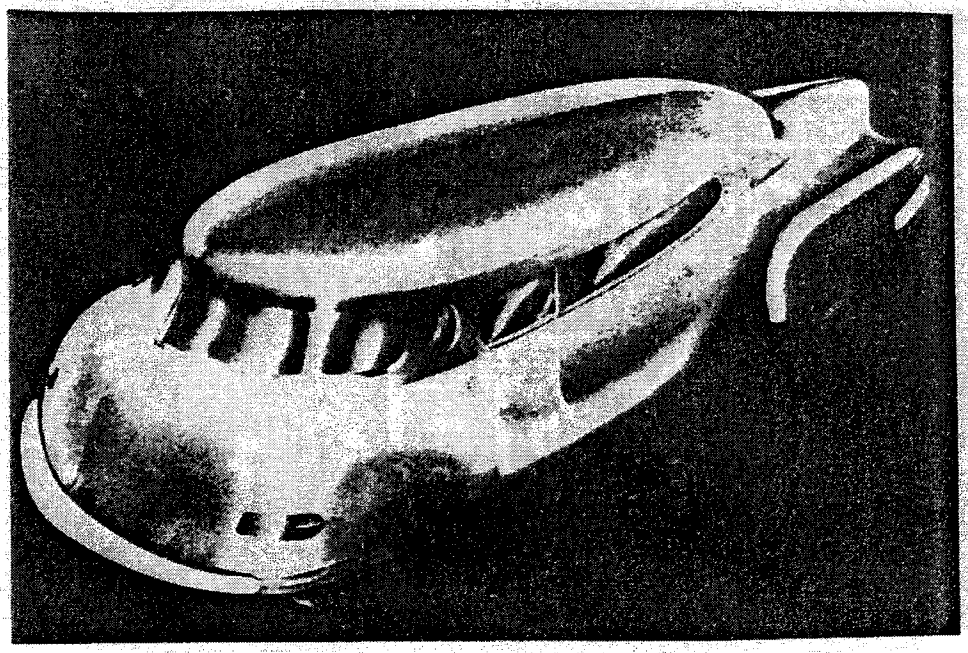
Illus. 13. Sisters of Mercy Hospital, Melbourne, Australia, Stephenson and Meldrum, 1937.



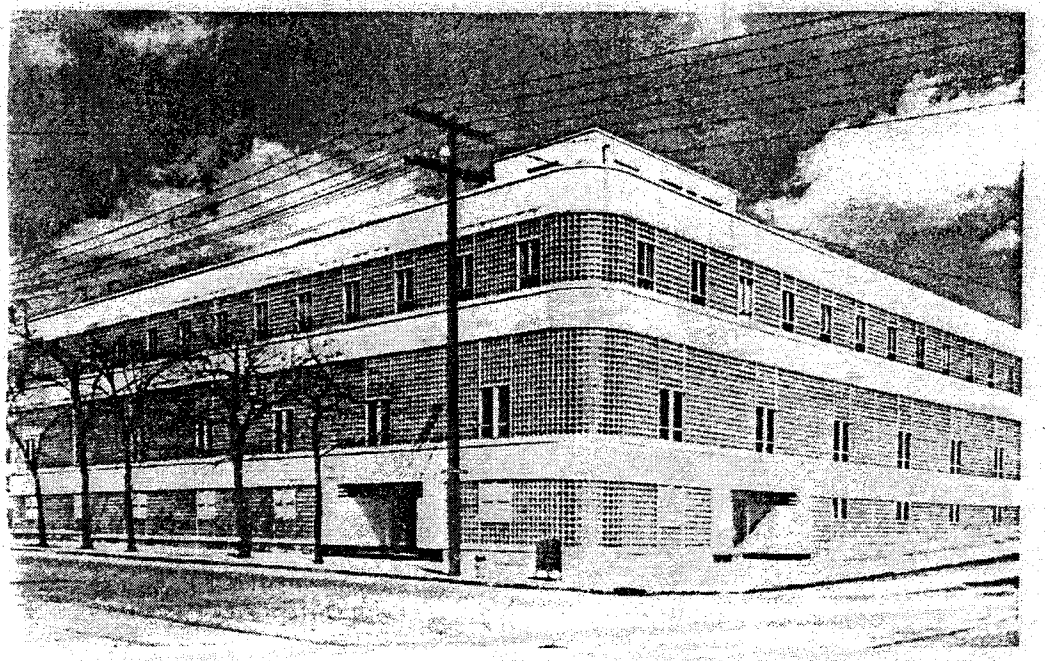
Illus. 14. Chrysler Bldg., New York, William Van Allen, 1929.



Illus. 15. "The Spirit of Transportation", Herman Sachs, for Bullocks-Wilshire Dept. Store, 1928.



Illus. 16. "The Automobile of the Future", Raymond Loewy, 1938.



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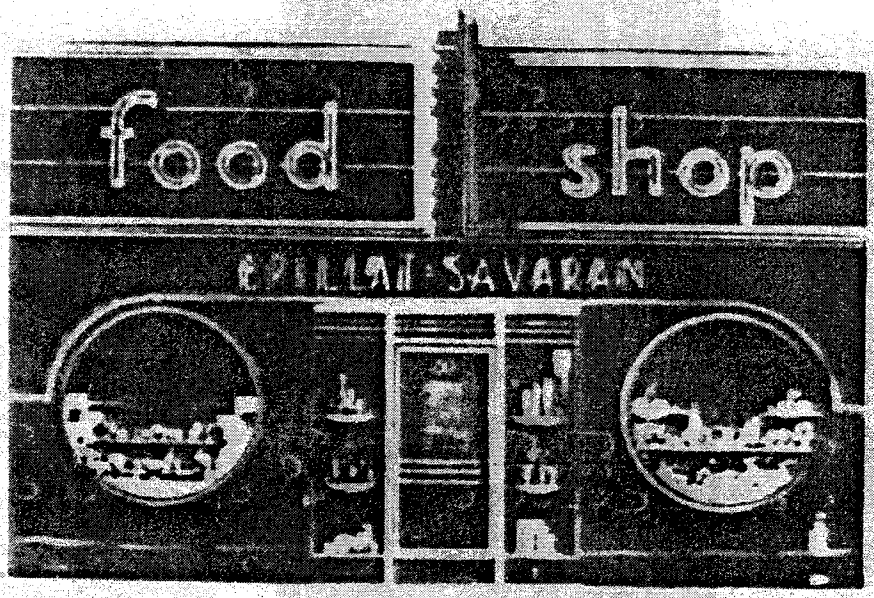
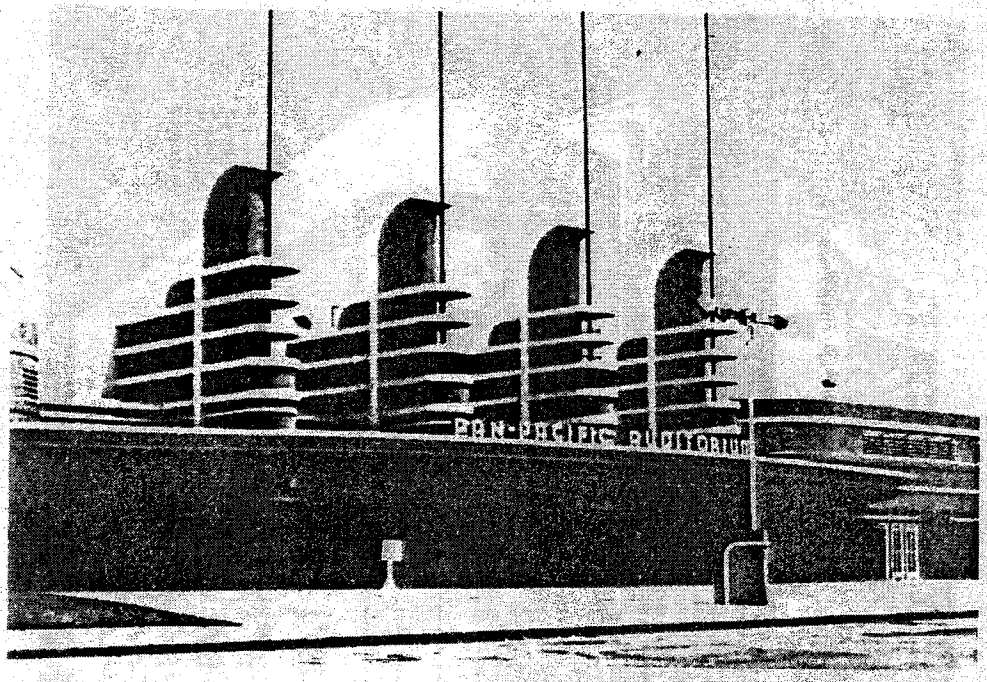
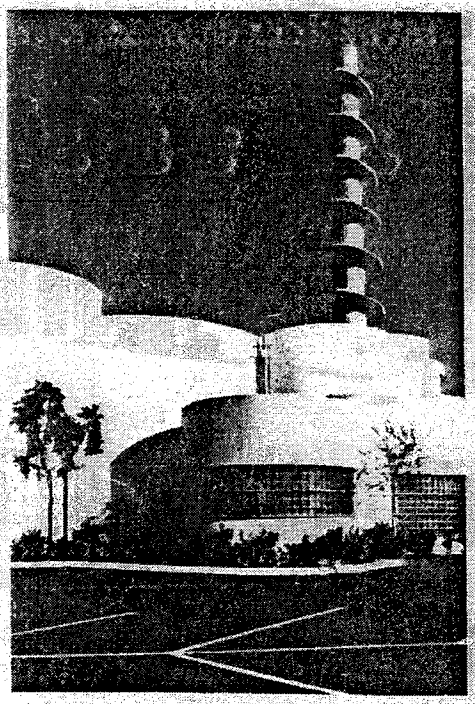


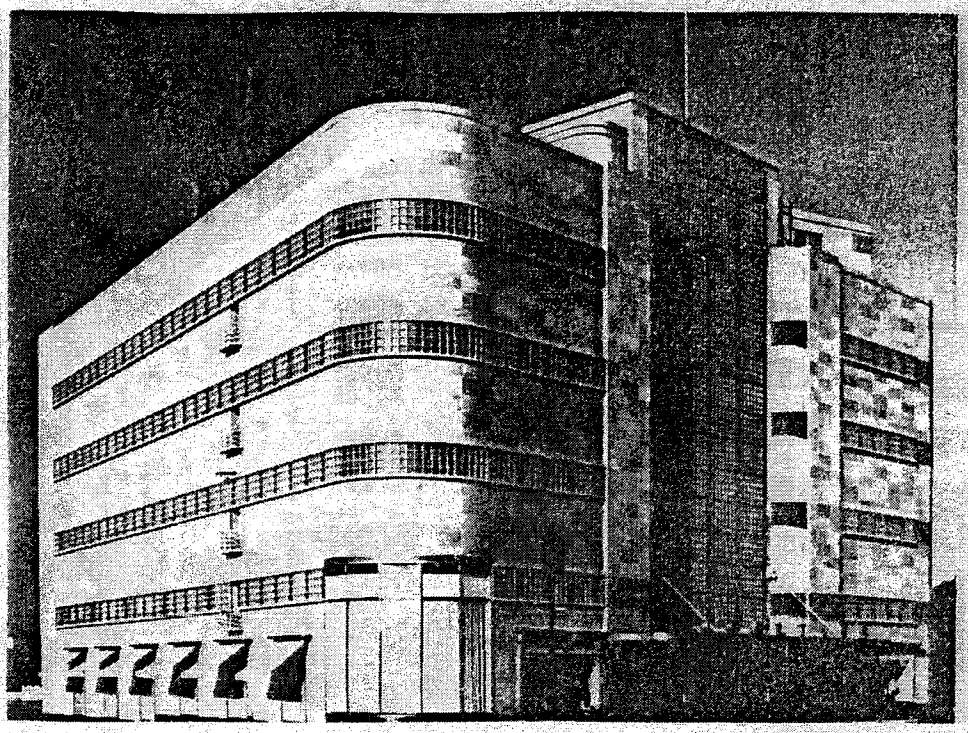
Illus. 18. Design for a food store, Newland Van Powell, 1935.



Illus. 19. Pan-Pacific Auditorium, Los Angeles, Wurdeman and Becket, 1935.



Illus. 20. Academy Theater, Inglewood, S. Charles Lee, 1939.



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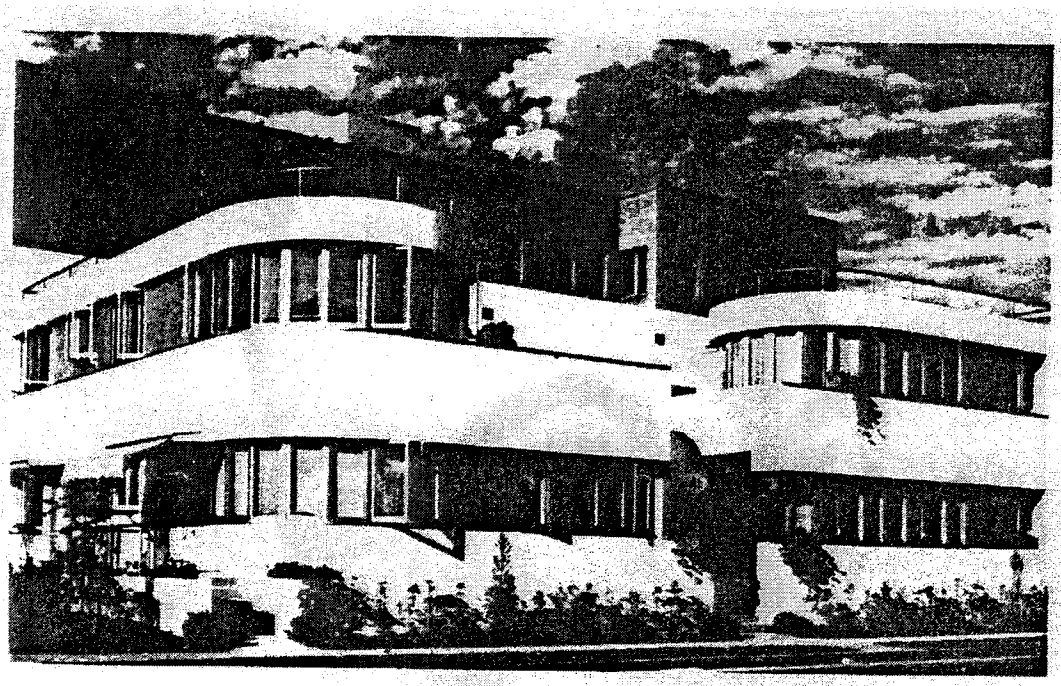
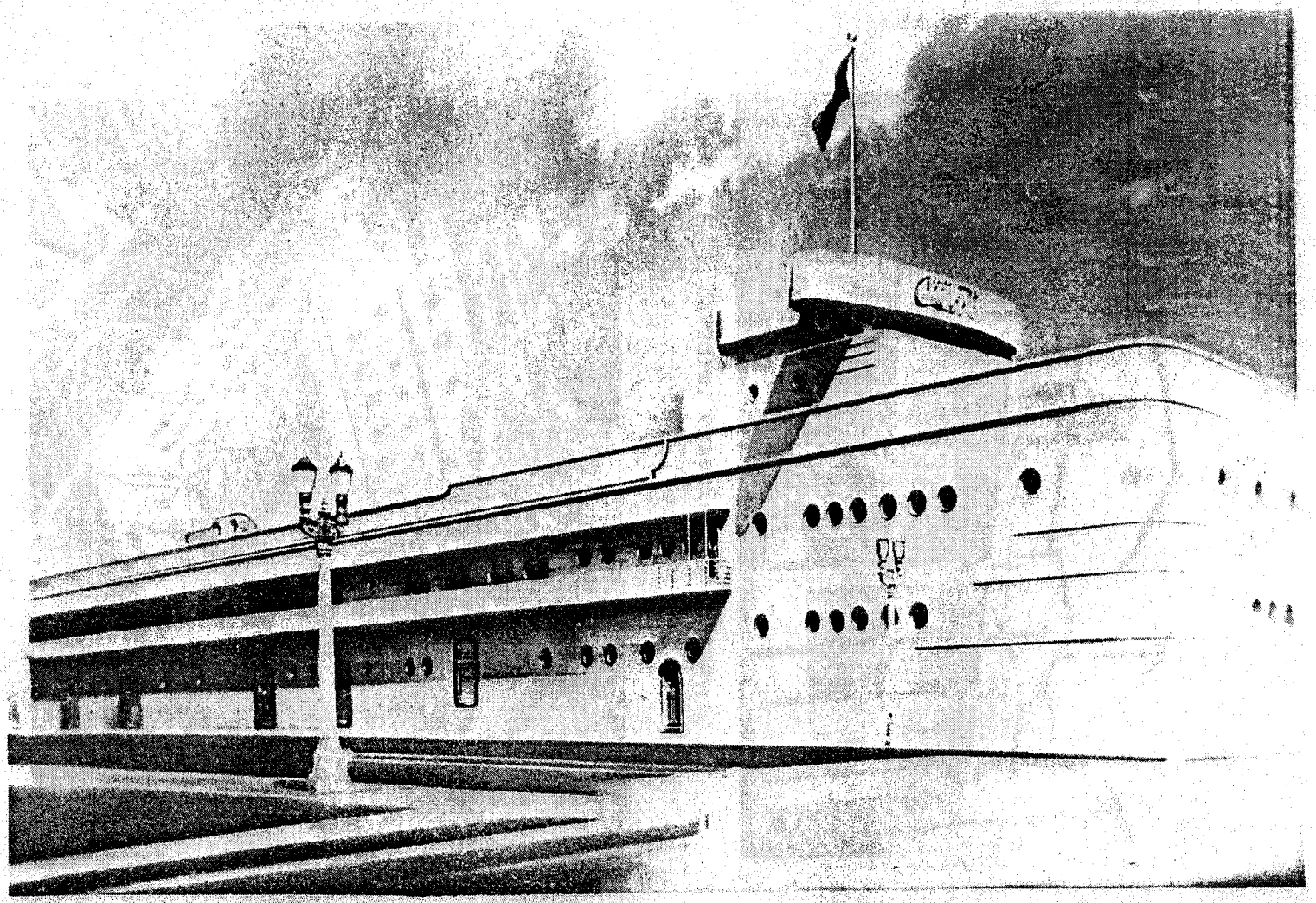


Illus. 22. Apartment, Los Angeles, Milton Black, 1938.

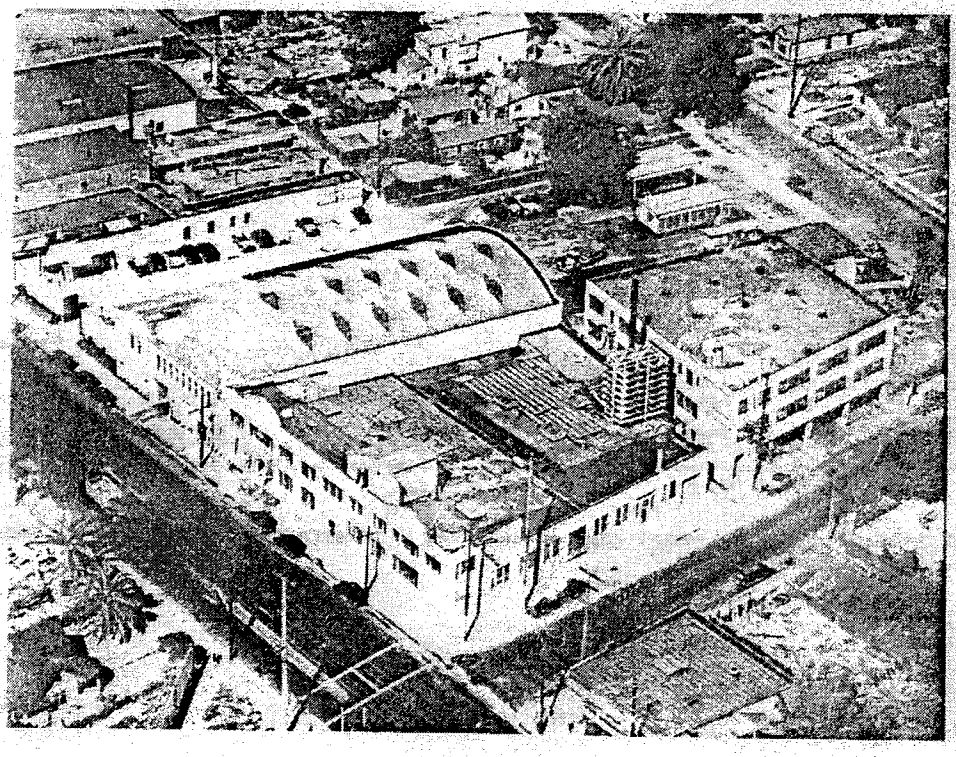
Illus. 23. Shangi-La Apartments, Santa Monica, William E. Foster, 1940.

Illus. 24. Robert Vincent Derrah, about 1940.

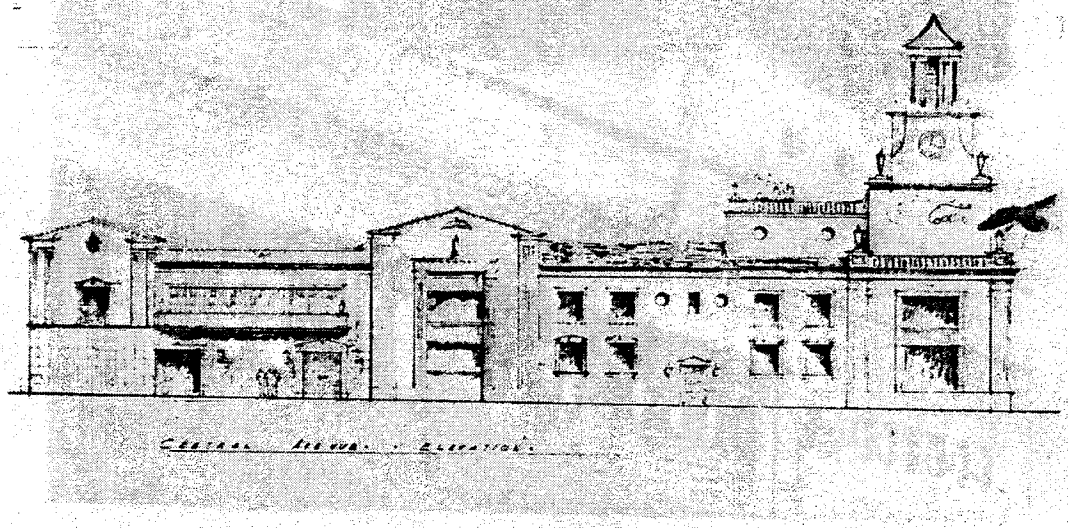


Illus. 25. Bottling plant and offices, Coca-Cola, Los Angeles, 1936.

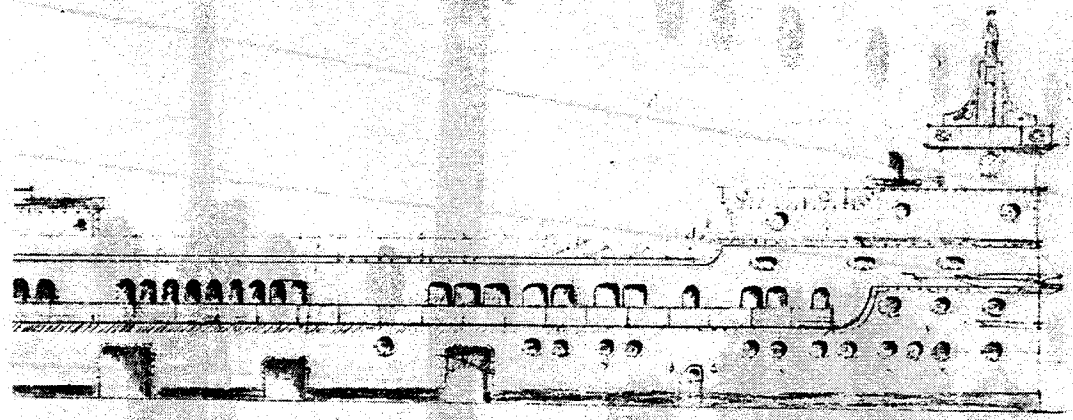
Illus. 26. Coca-Cola, existing buildings.



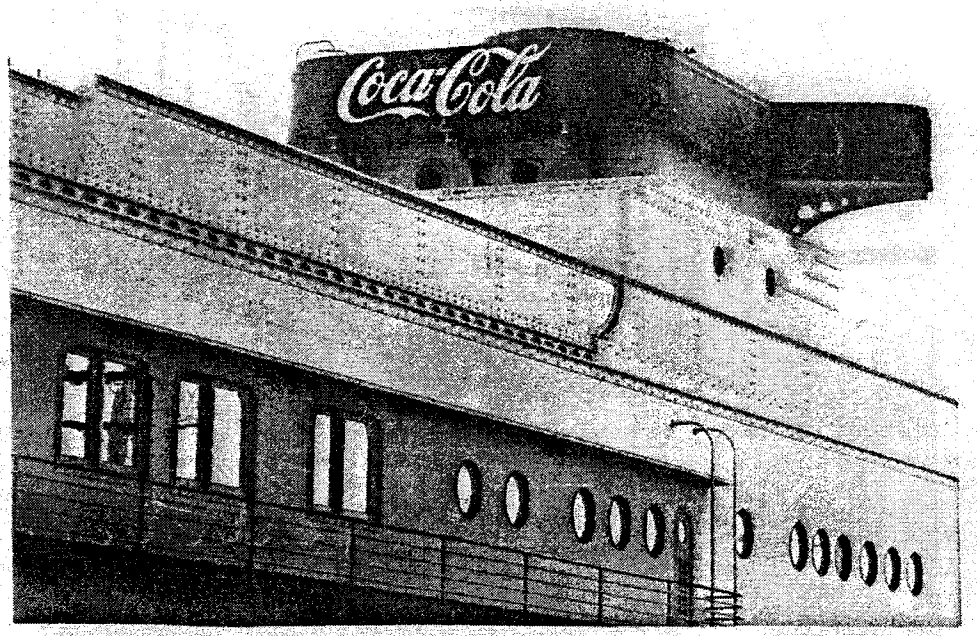
Illus. 27. Aerial photo of existing buildings.



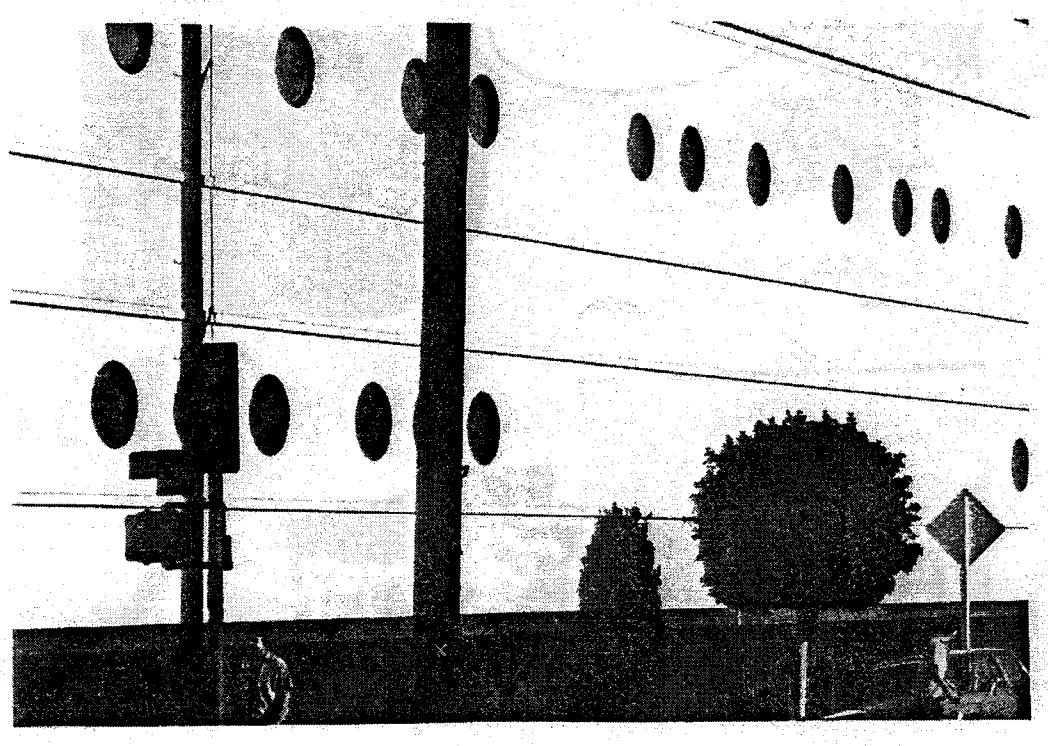
Illus. 28. Coca-Cola, first proposal.



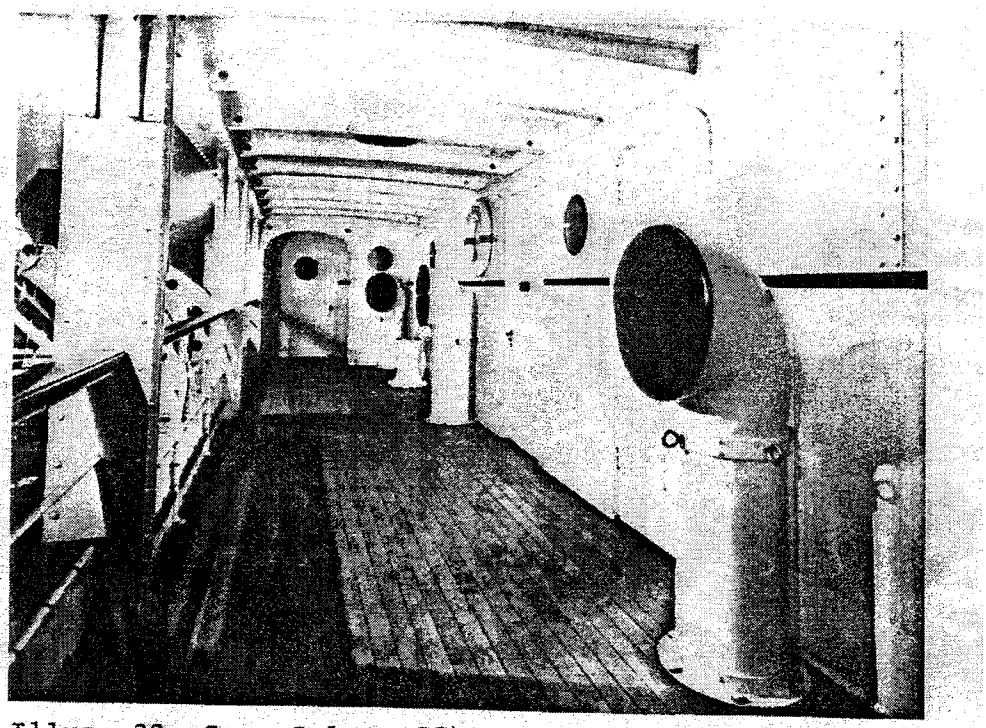
Illus. 29. Coca-Cola, second proposal.



Illus. 30. Coca-Cola, ship's bridge.

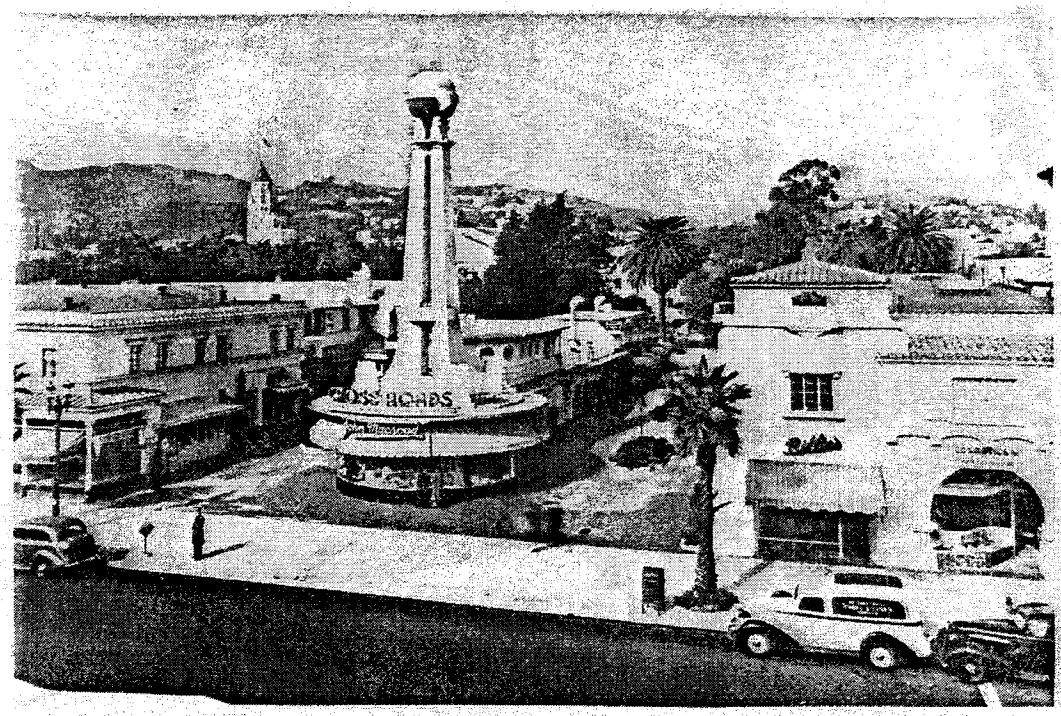


Illus. 31. Coca-Cola, 14th Street facade.

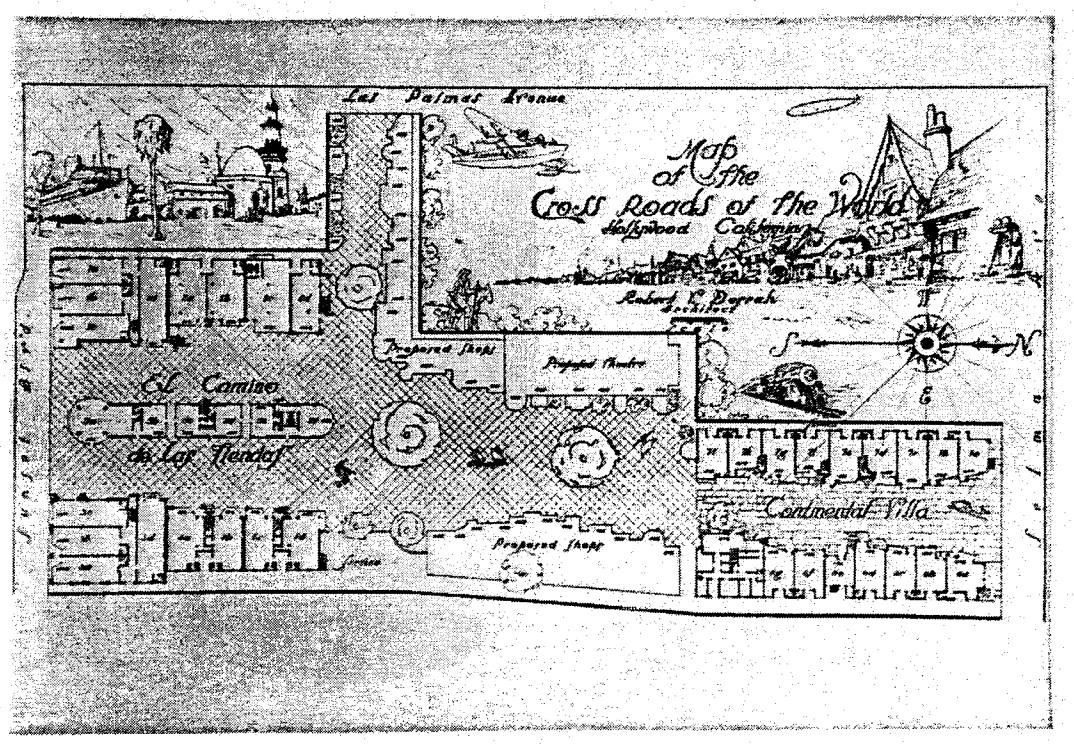


Illus. 32. Coca-Cola, office mezzanine overlooking production area.

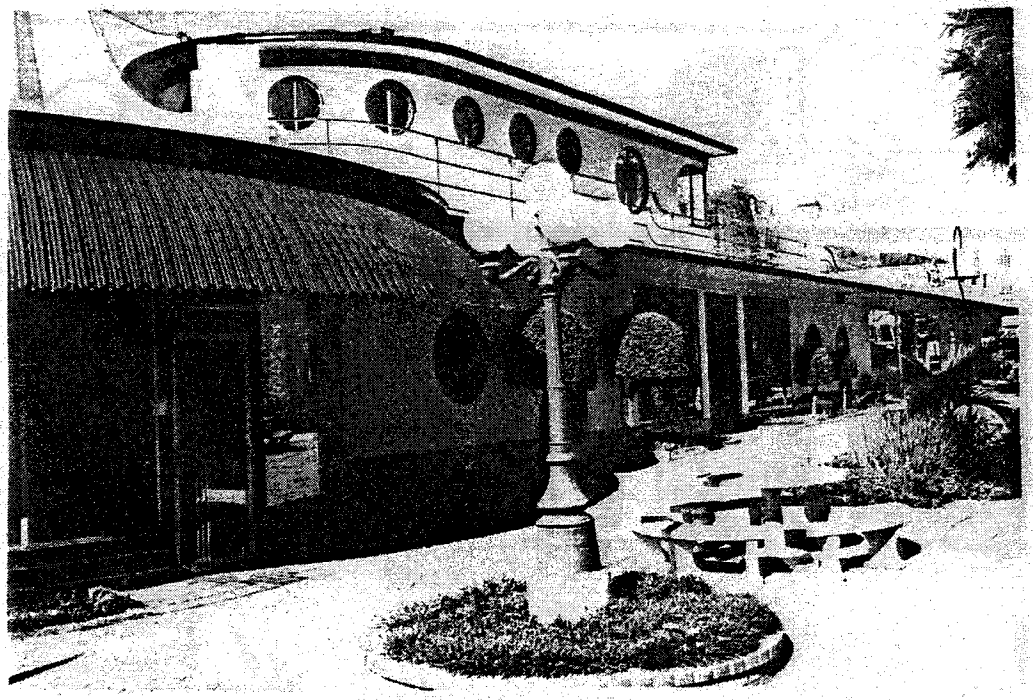
Illus. 33. Coca-Cola, ante room.



Illus. 34. Cross Roads of the World Shopping Center, Hollywood, 1936.

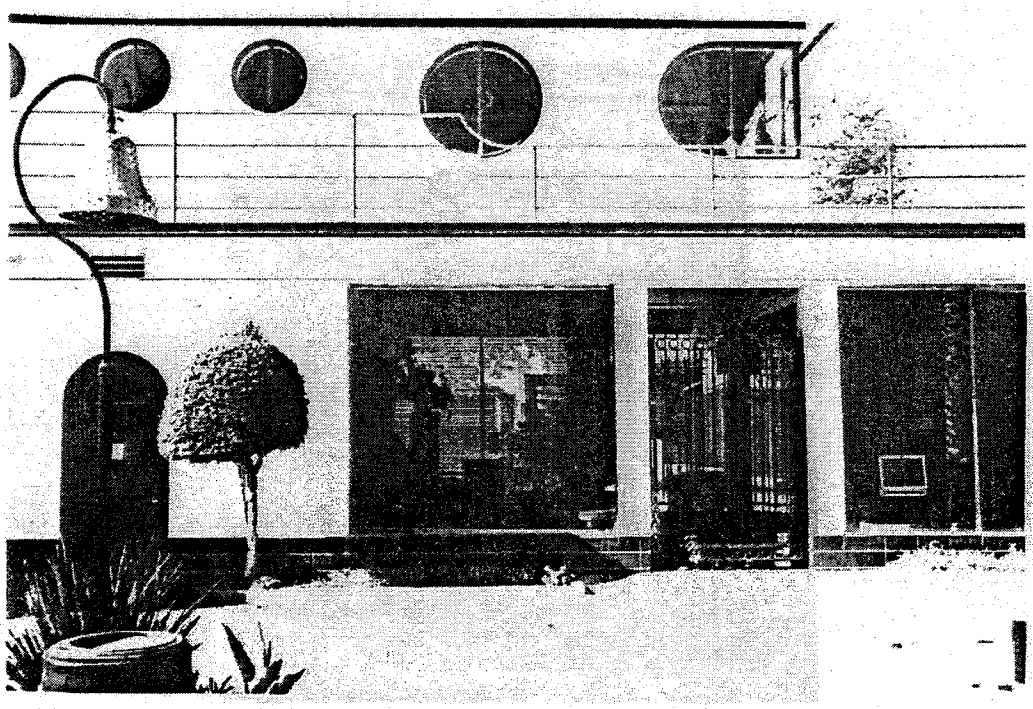


Illus. 35. Cross Roads of the World, plan.

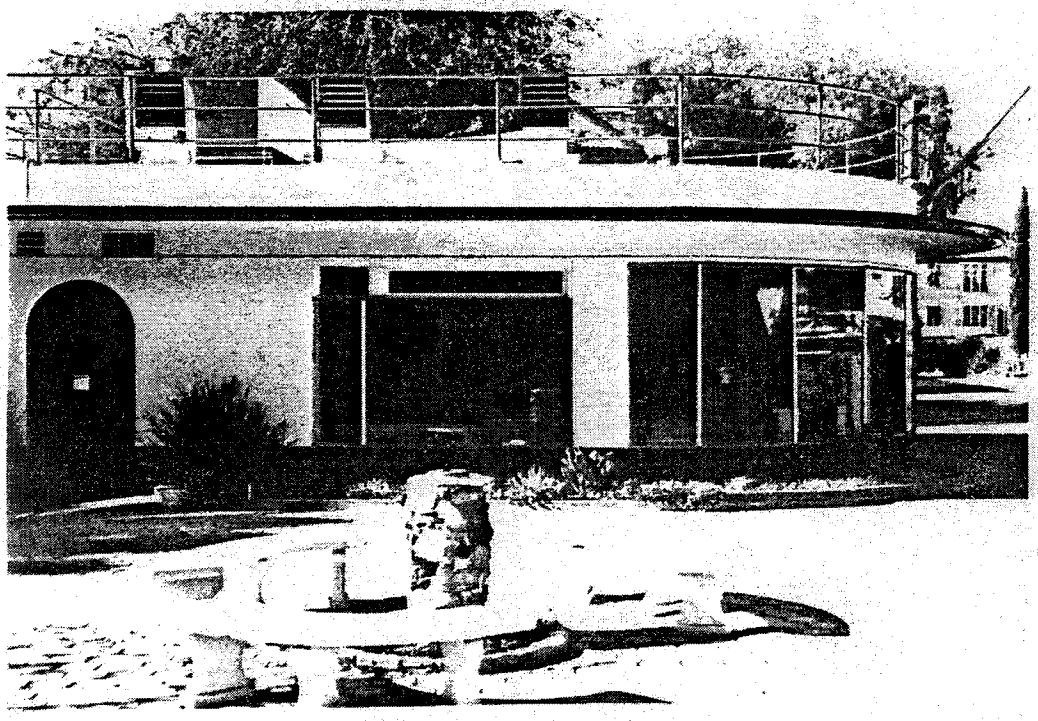


Illus. 36. Cross Roads of the World, Nautical building.

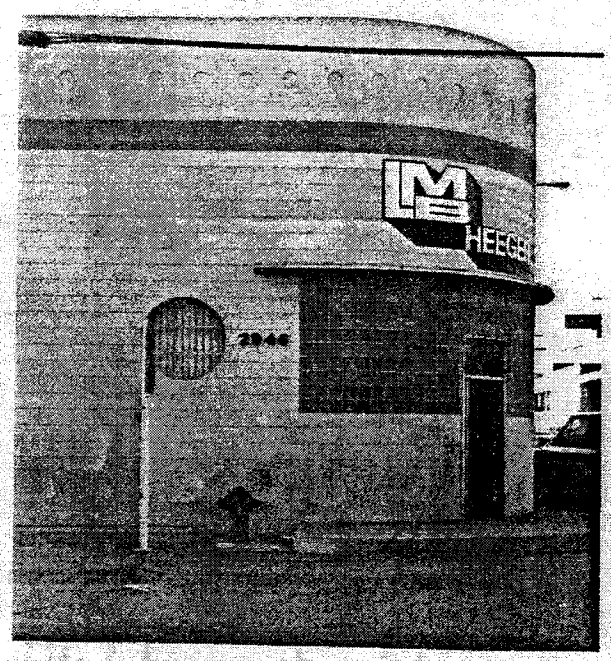
Illus. 37. Cross Roads of the World, Rcbert Derrah and revolving globe.



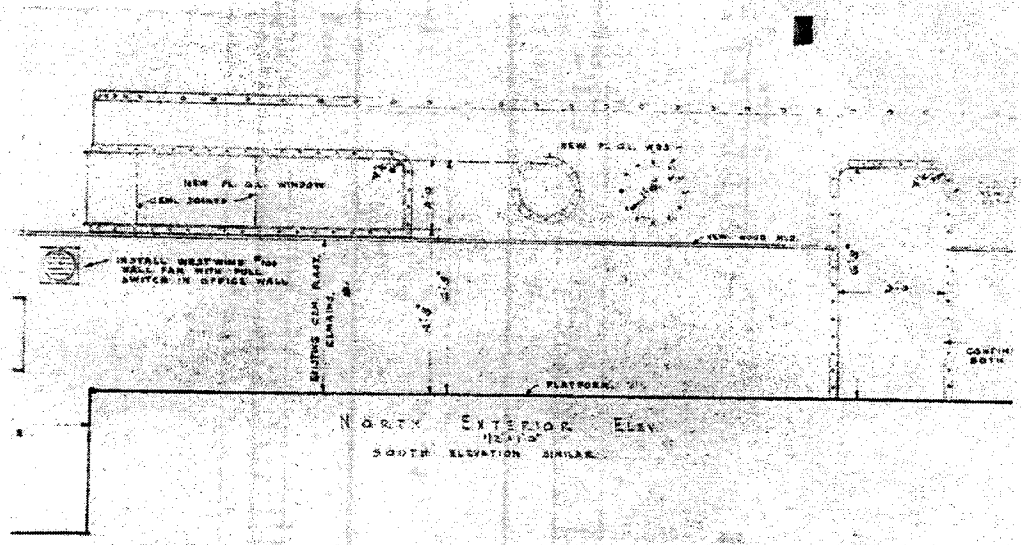
Illus. 38. Nautical building, pilot house.



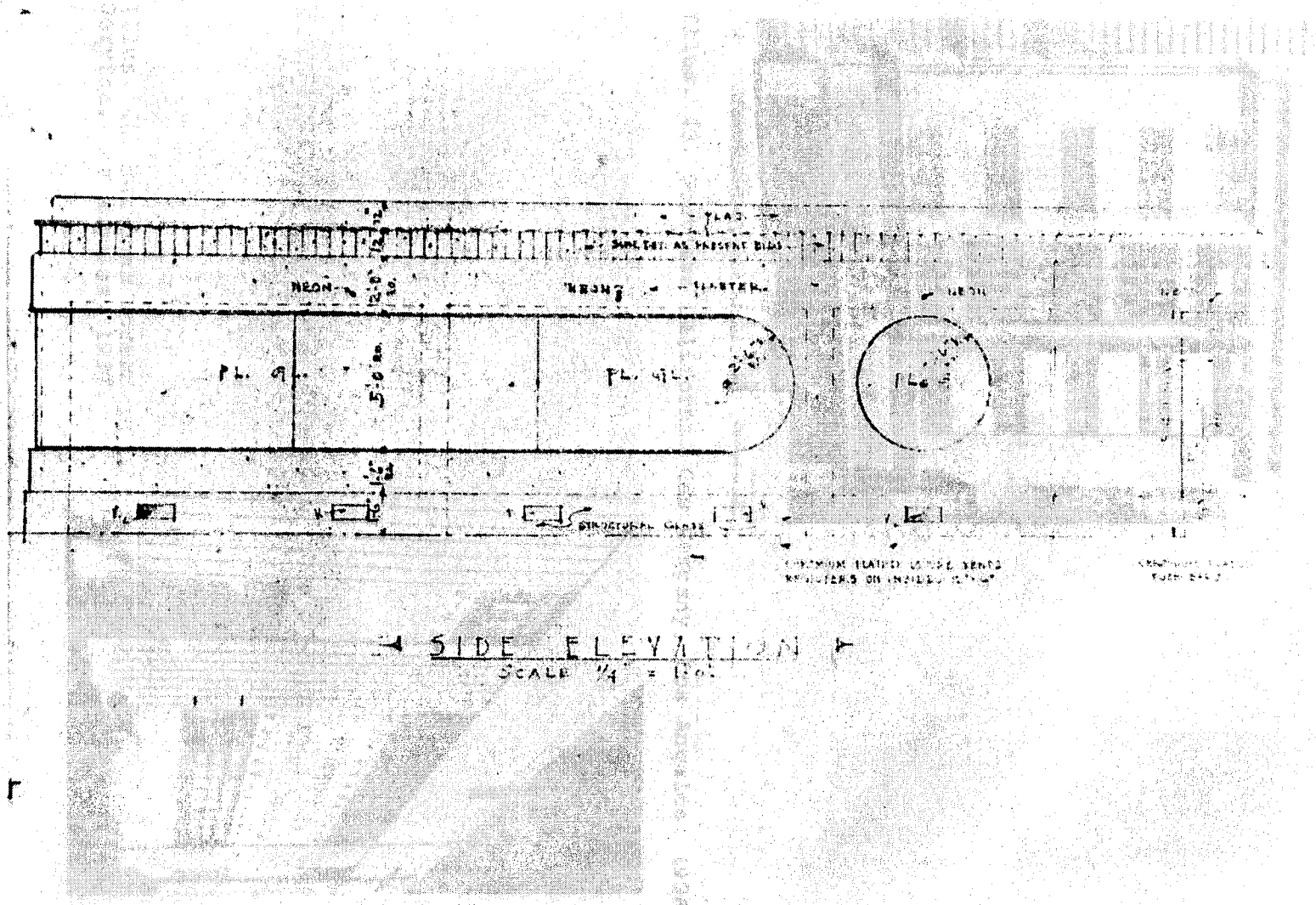
Illus. 39. Nautical building, stern.



Illus. 40. Nesbitt Fruit Products, Los Angeles, 1937.

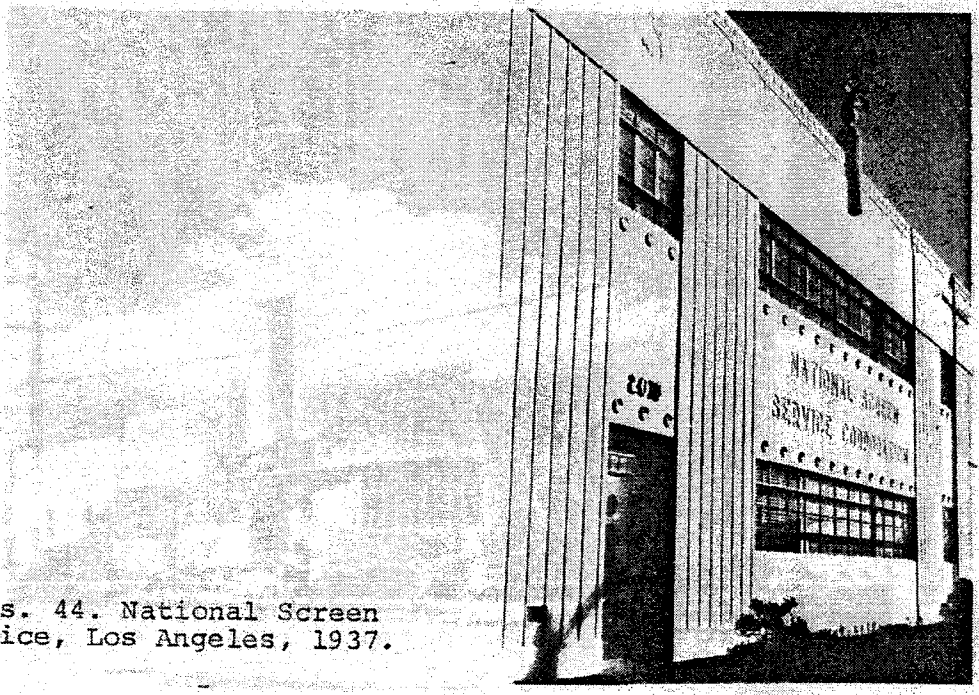


Illus. 41. Nesbitt Fruit Products, proposed laboratory remodeling, 1939.

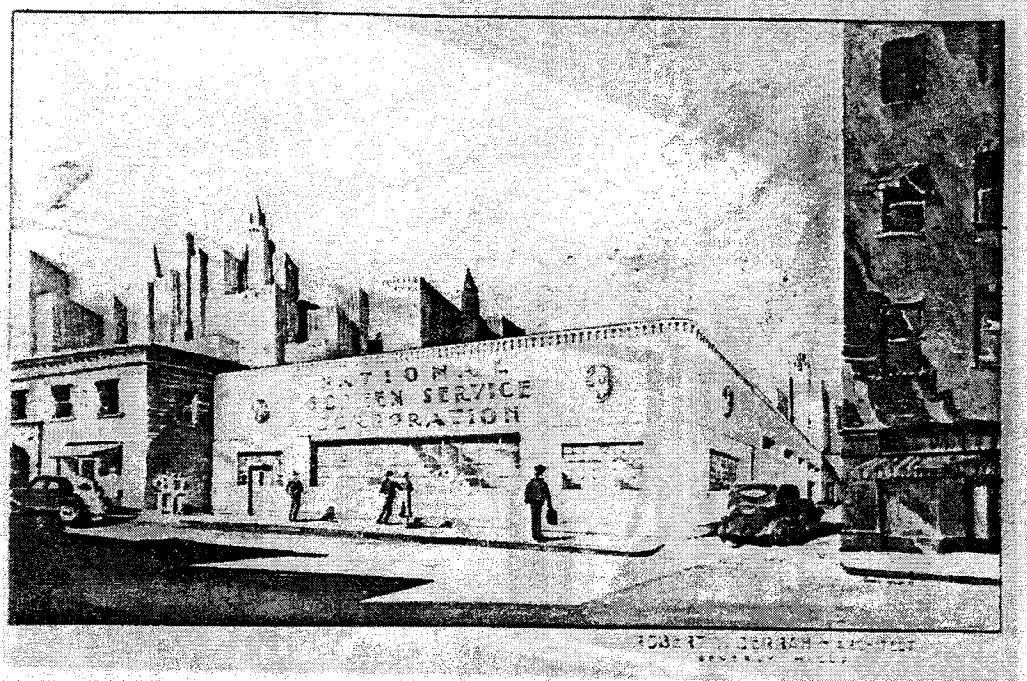


Illus. 42. Design for a restaurant, Beverly Hills, 1938.

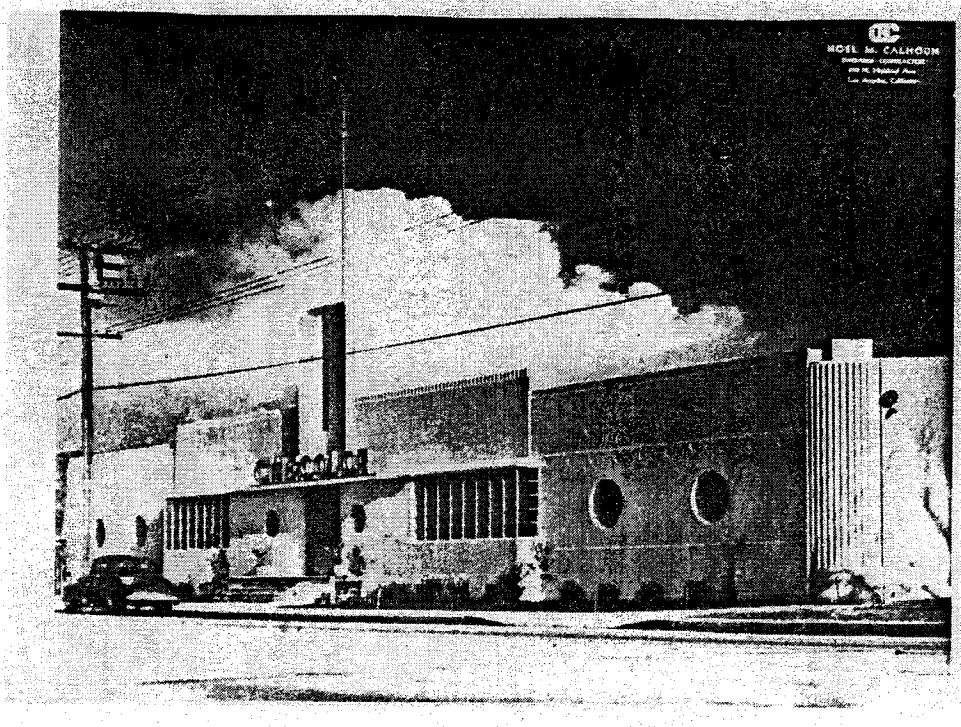
Illus. 43. Southern California Gas Company, Los Angeles, 1938.



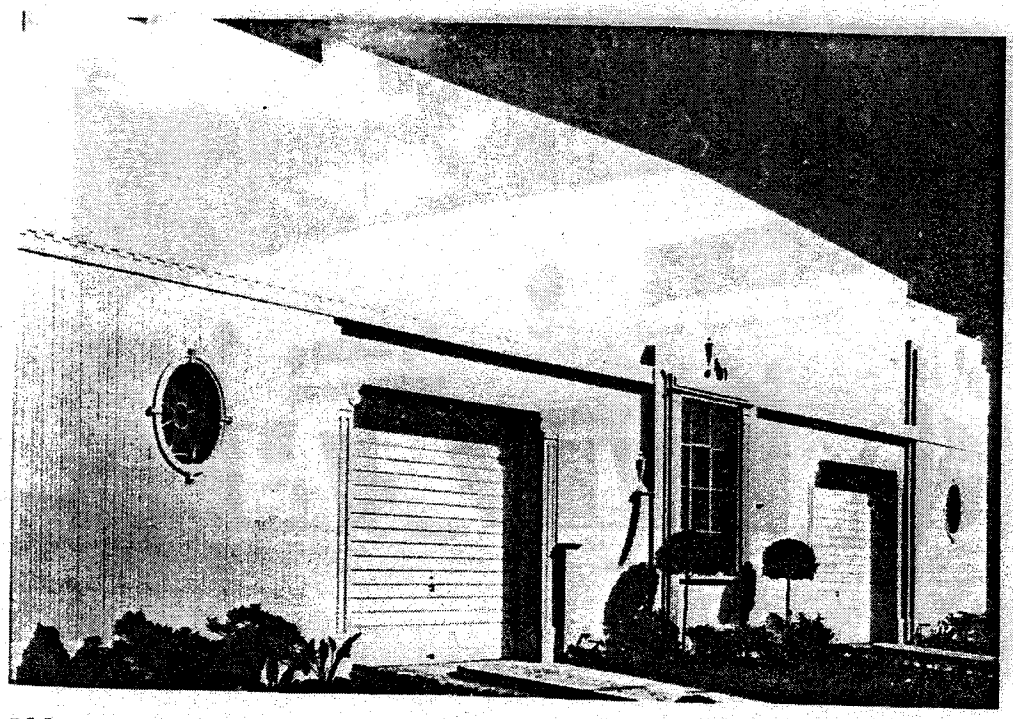
Illus. 44. National Screen Service, Los Angeles, 1937.



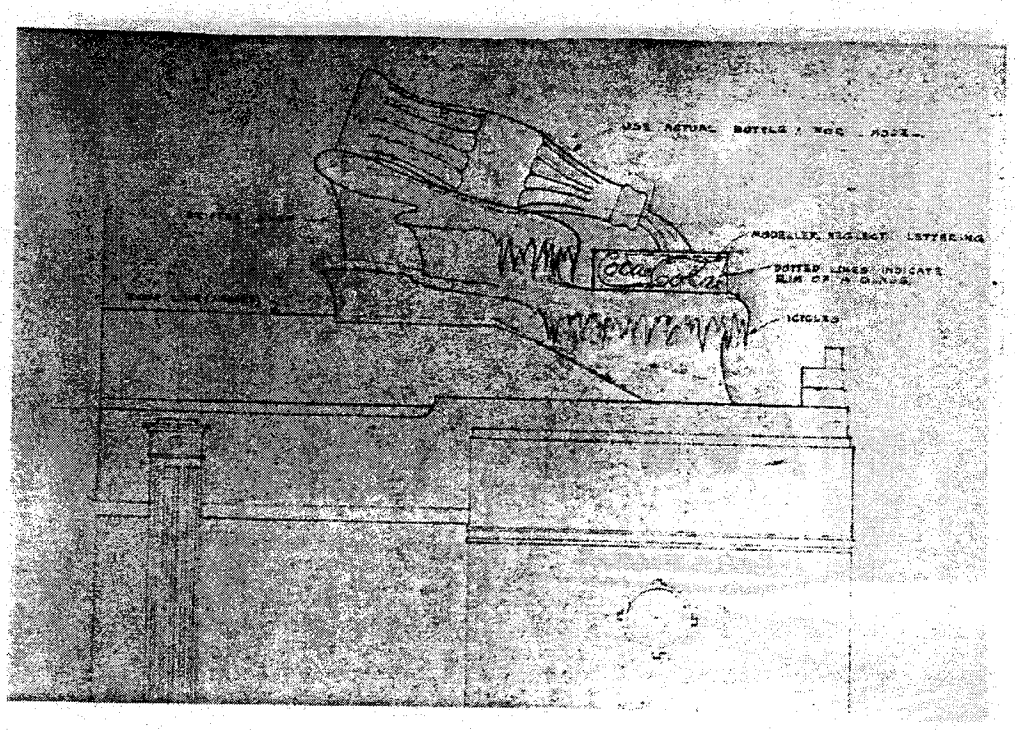
Illus. 45. Design for National Screen Service, San Francisco, 1937.



Illus. 46. Cinecolor, Burbank, 1938.

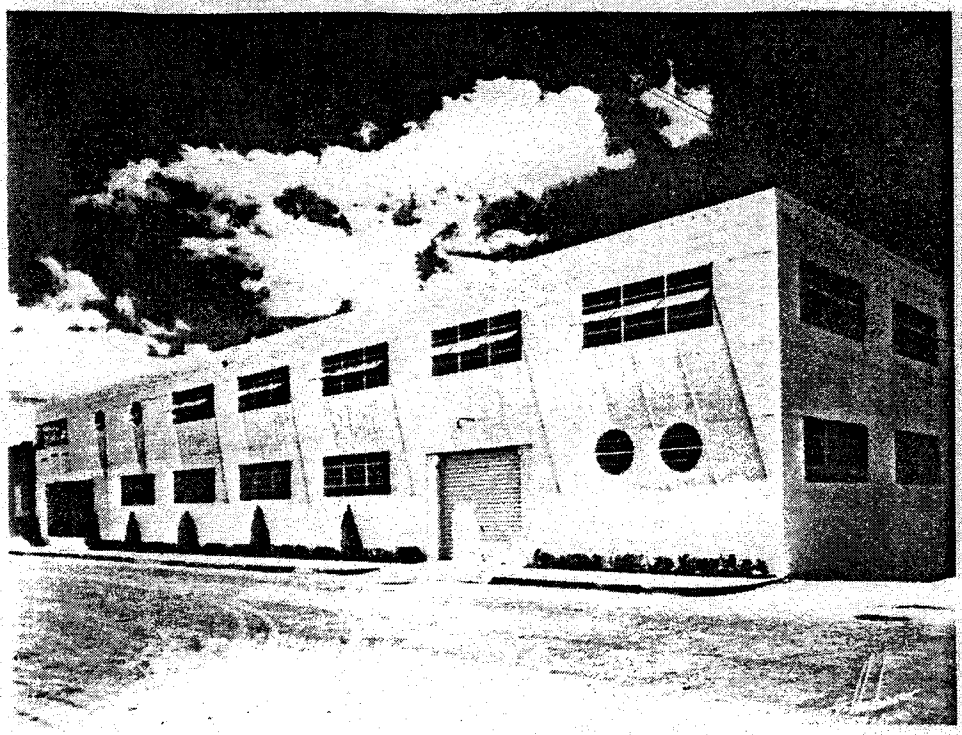


Illus. 47. Coca-Cola, Pasadena, 1935.

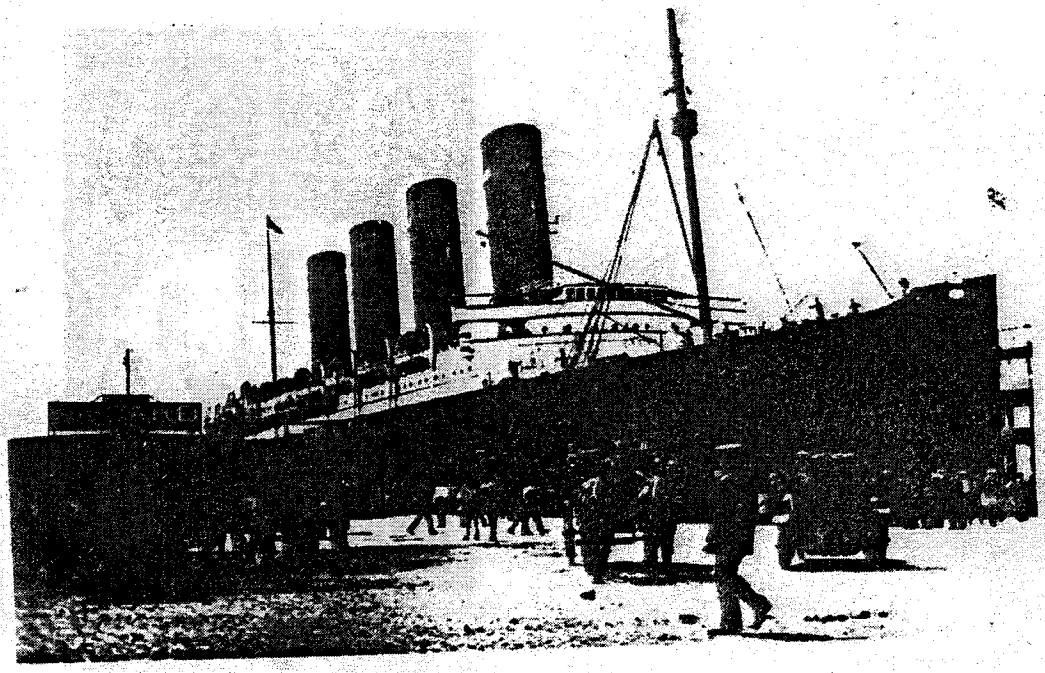


Illus. 48. Coca-Cola, proposed roof treatment.

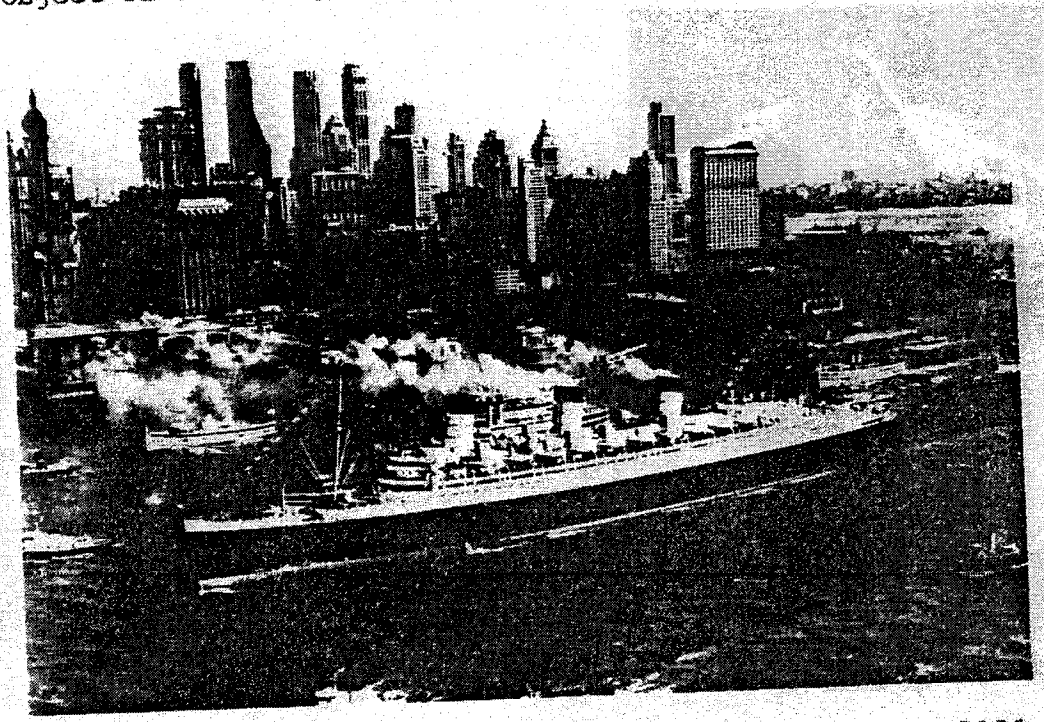
Illus. 49. Coca-Cola, Waco, Texas, 1938.



Illus. 50. Coca-Cola, rear elevation.



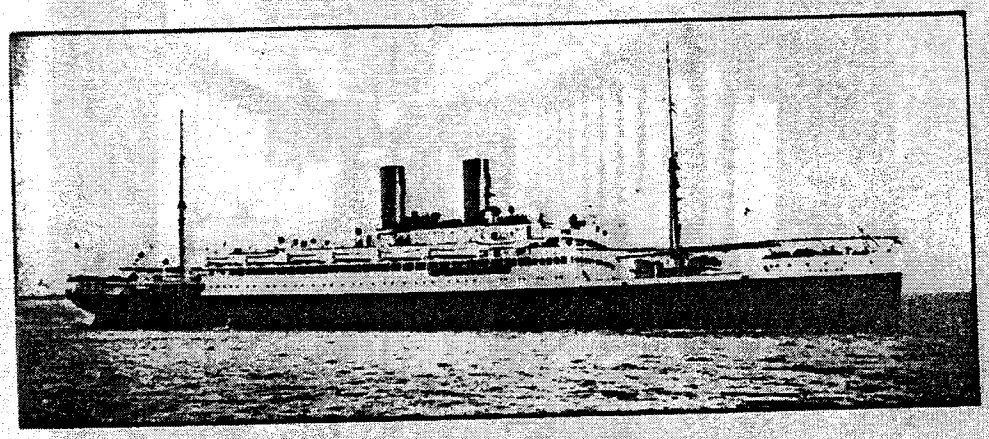
Illus. 1. The Lusitania at New York. The ocean liner as an object of technological superiority.



Illus. 2. The Queen Mary completes her maiden voyage, 1936. The ocean liner as an object of design superiority.

Illus. 3. Travel poster for the Bremen, about 1935. Symbolic association between the ocean liner and the skyscraper.

Illus. 4. Travel poster for the Normandie, 1935. The ocean liner as a representation of speed.



THE "FLANDRE" (CIE. TRANSATLANTIQUE)

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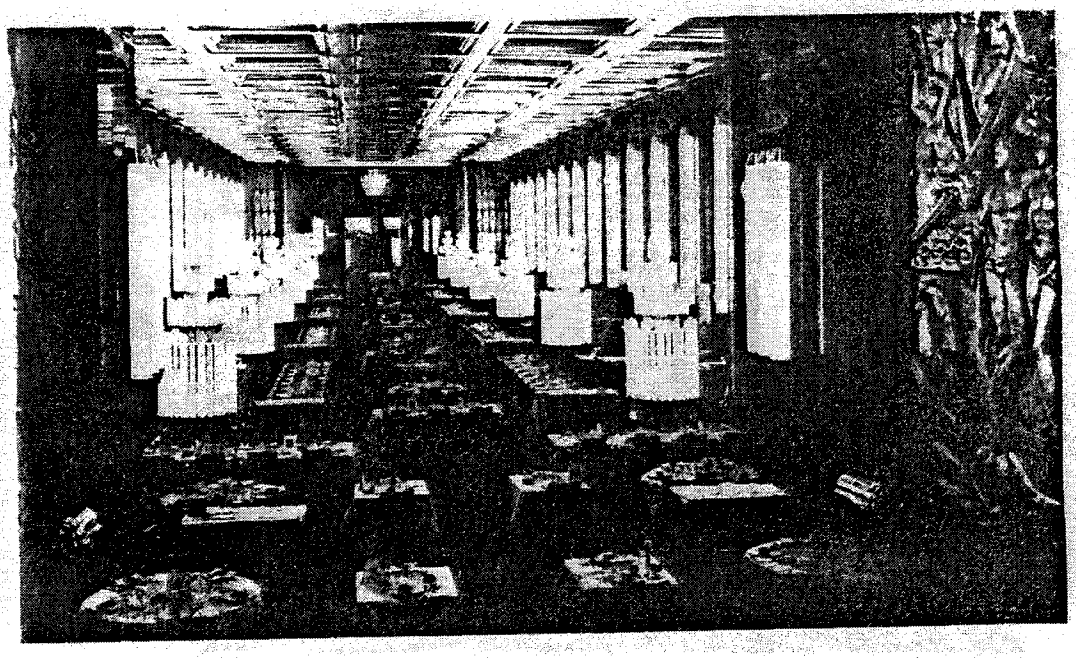
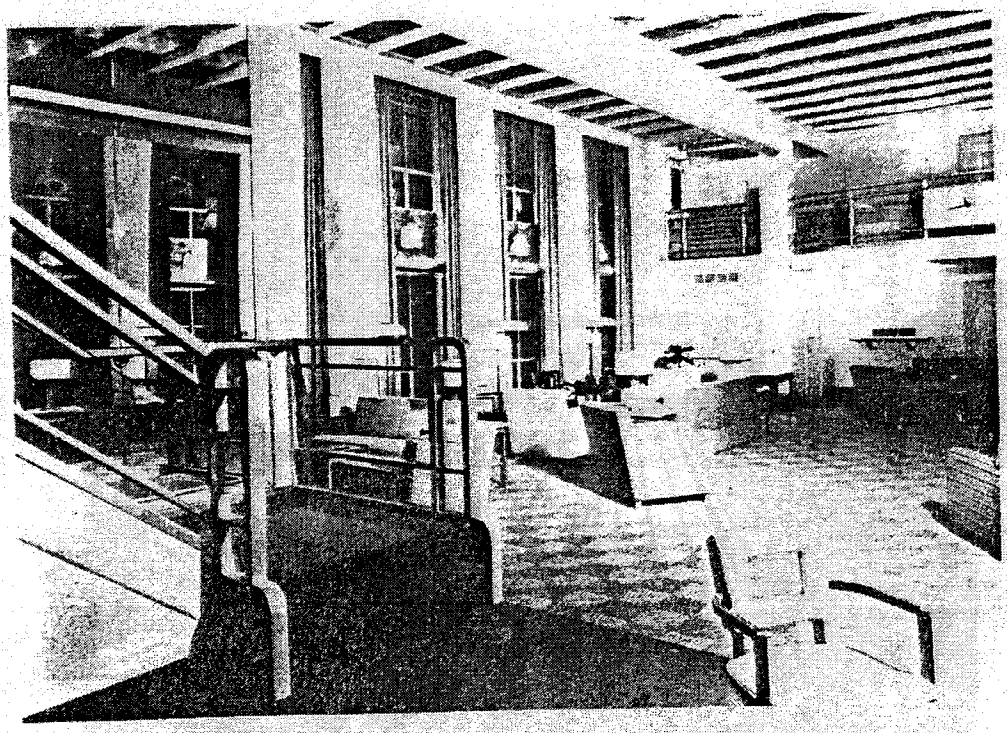
I

LINERS

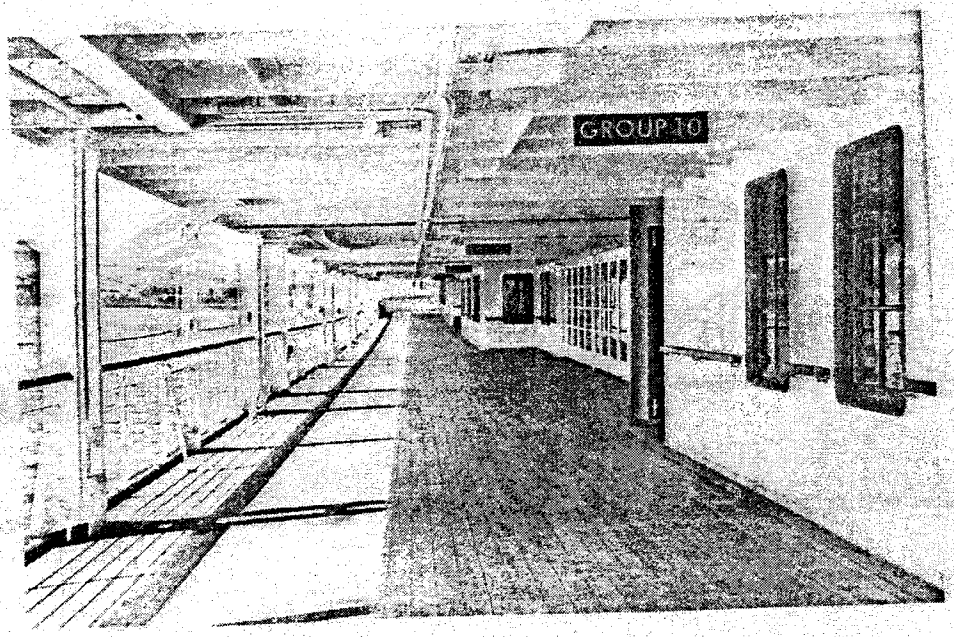
Illus. 5. Towards a New Architecture, page 81. Identification of the ocean liner as an acceptable model for architectural emulation by Le Corbusier.



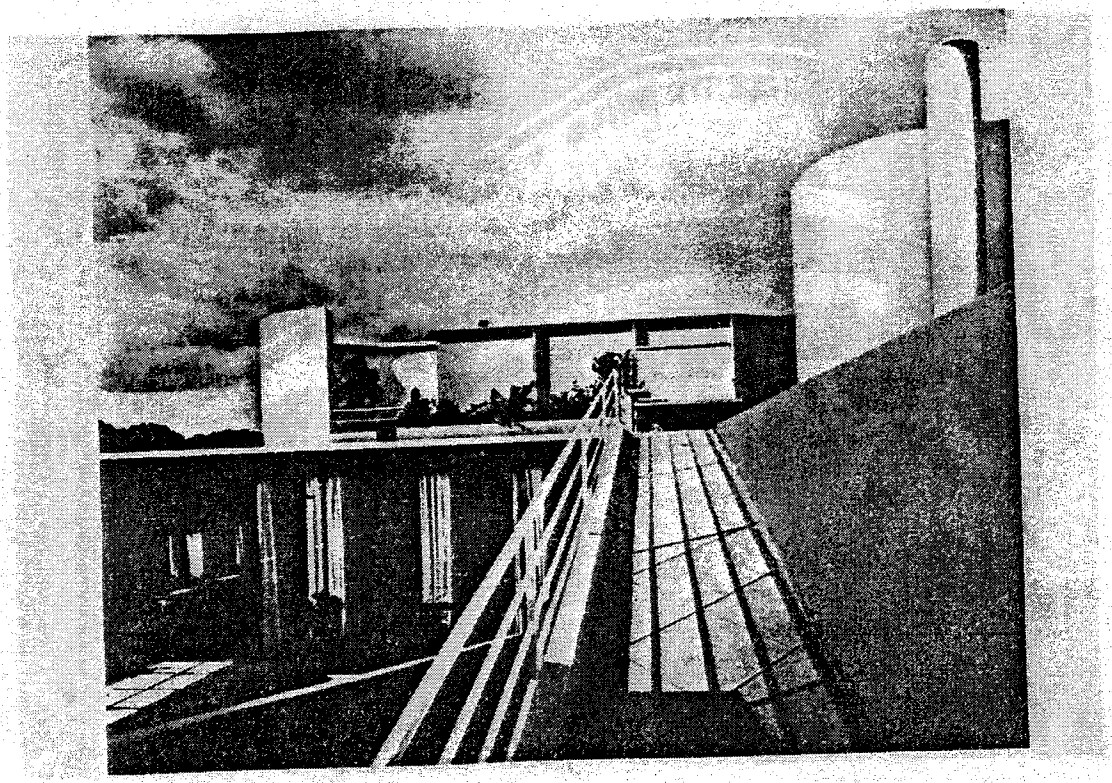
Illus. 6. Dining Room of the Normandie, Pacon and Partout, 1935.



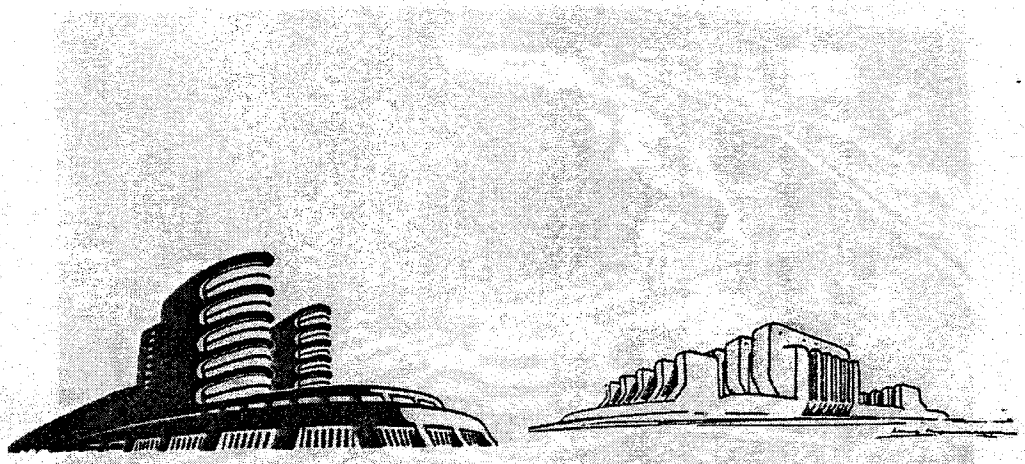
Illus. 7. Main Salon of the Panama, Raymond Loewy and William Smith, Inc., 1936.



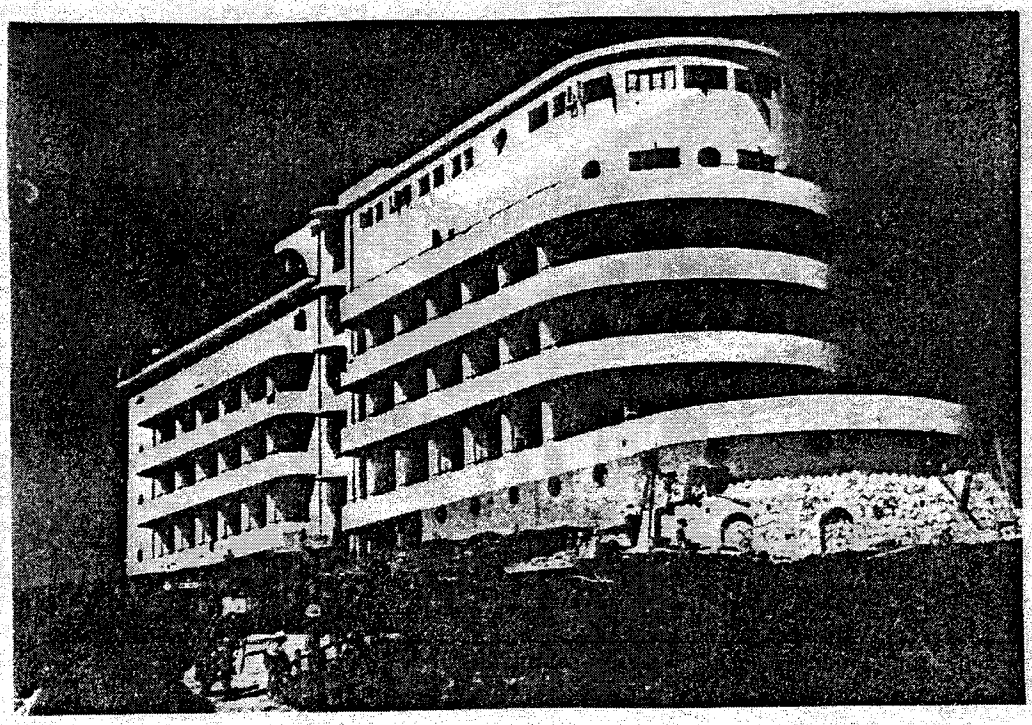
Illus. 8. Promenade deck of the Orion, 1935.



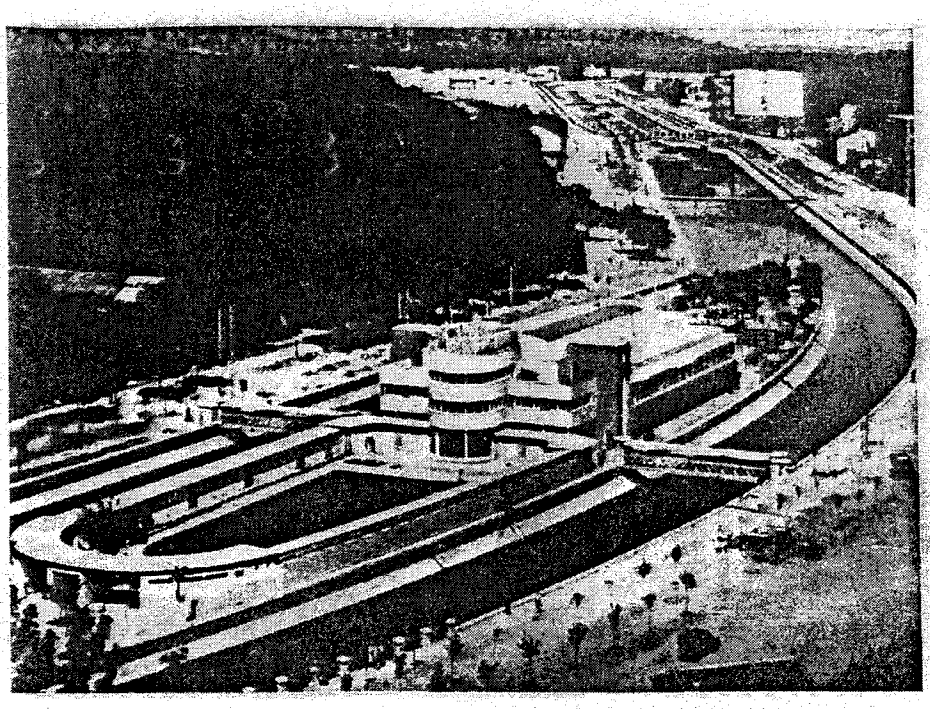
Illus. 9. Villa Savoye, roof garden, Le Corbusier, 1930.



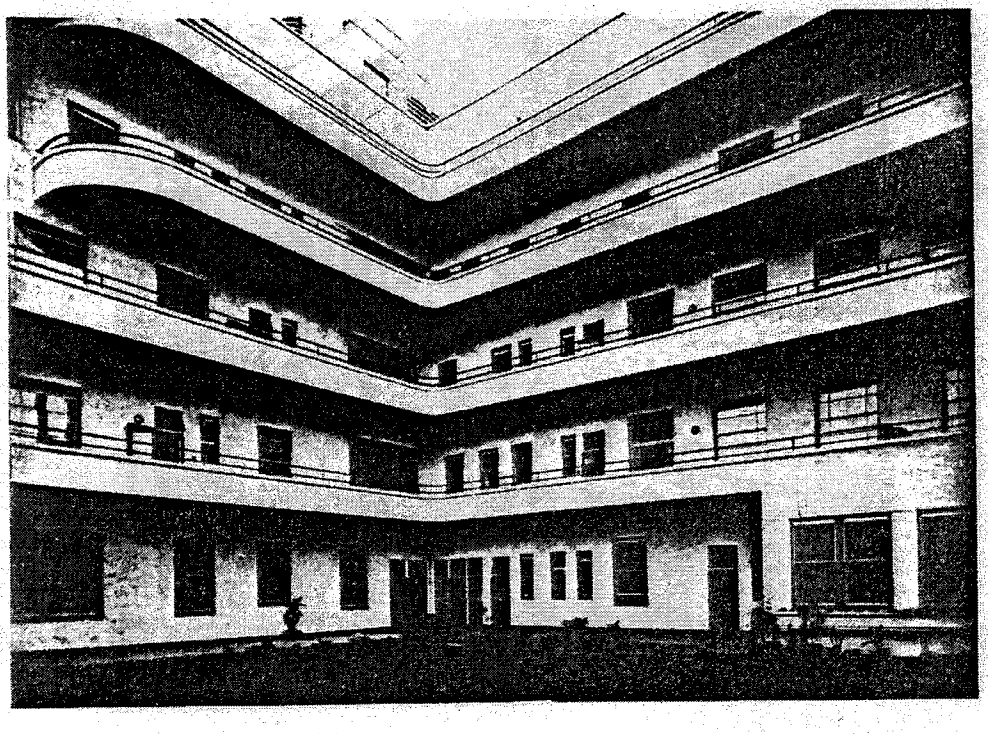
Illus. 10. Sketches for industrial buildings, Eric Mendlesohn, about 1920.



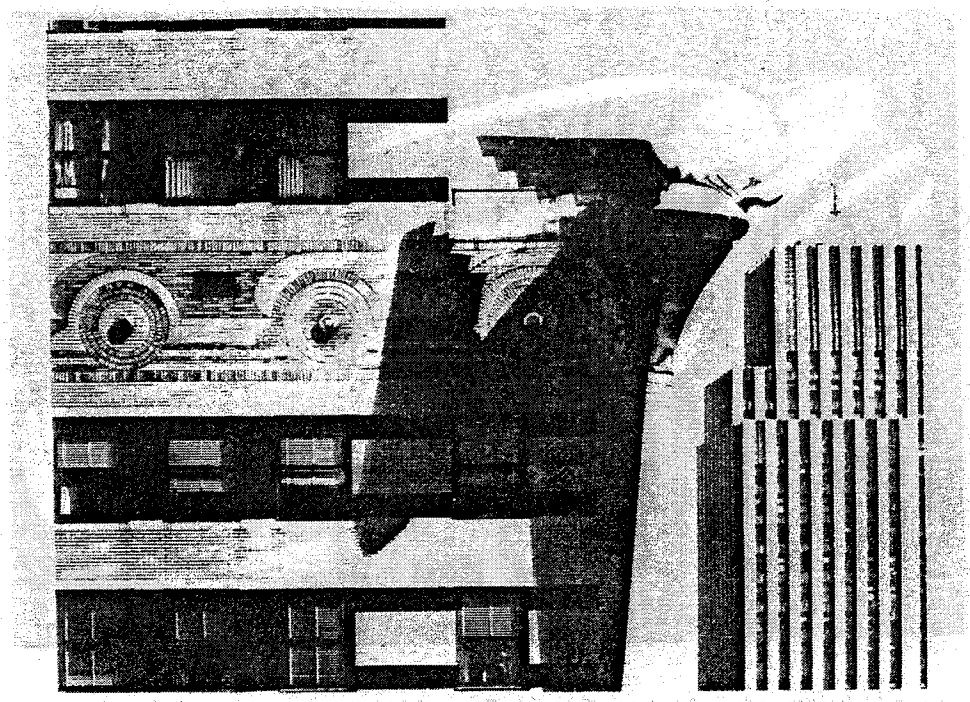
Illus. 11. Hotel Bellona, Efforie, Romania, G.M. Cantacuzene, 1934.



Illus. 12. Swimming pools, Madrid, G.M. Cantacuzene, 1934.



Illus. 13. Sisters of Mercy Hospital, Melbourne, Australia, Stephenson and Meldrum, 1937.



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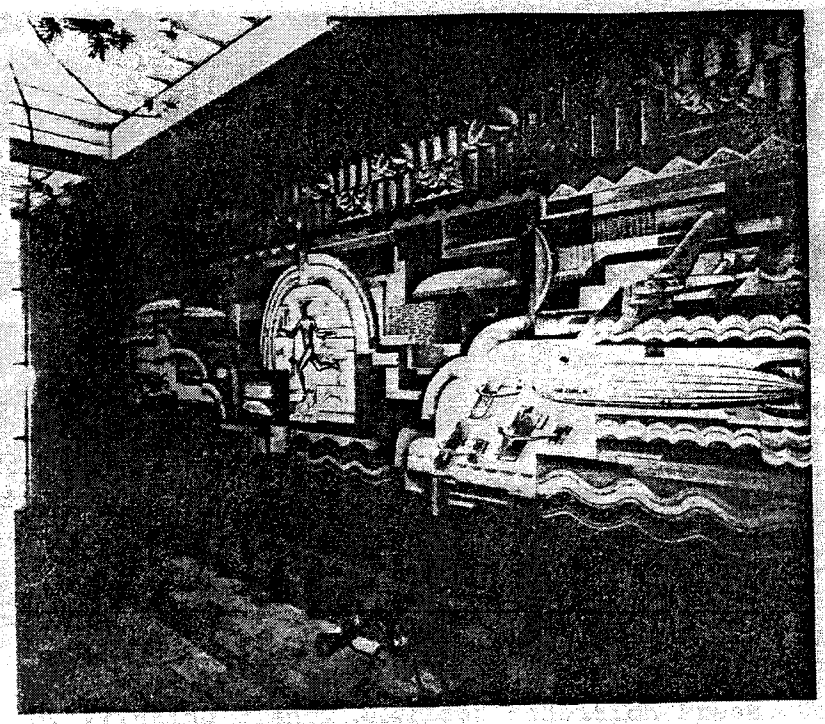
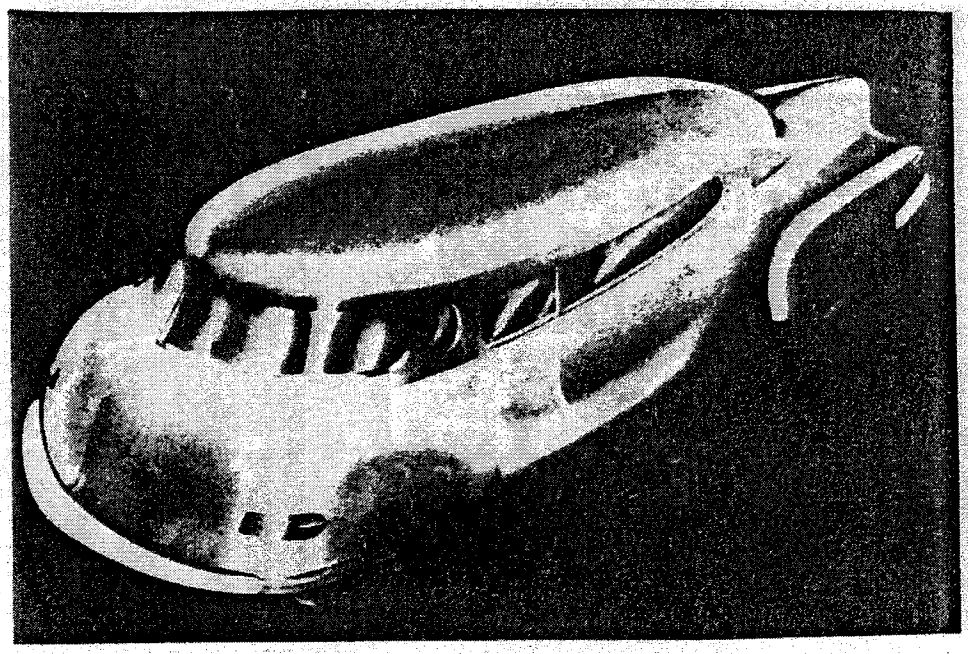
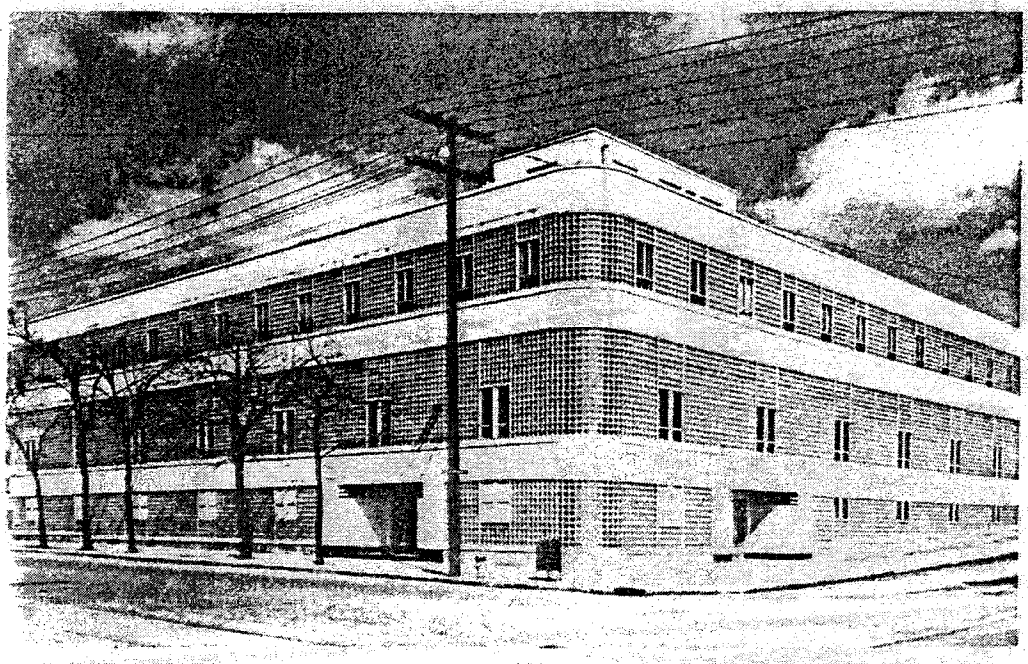


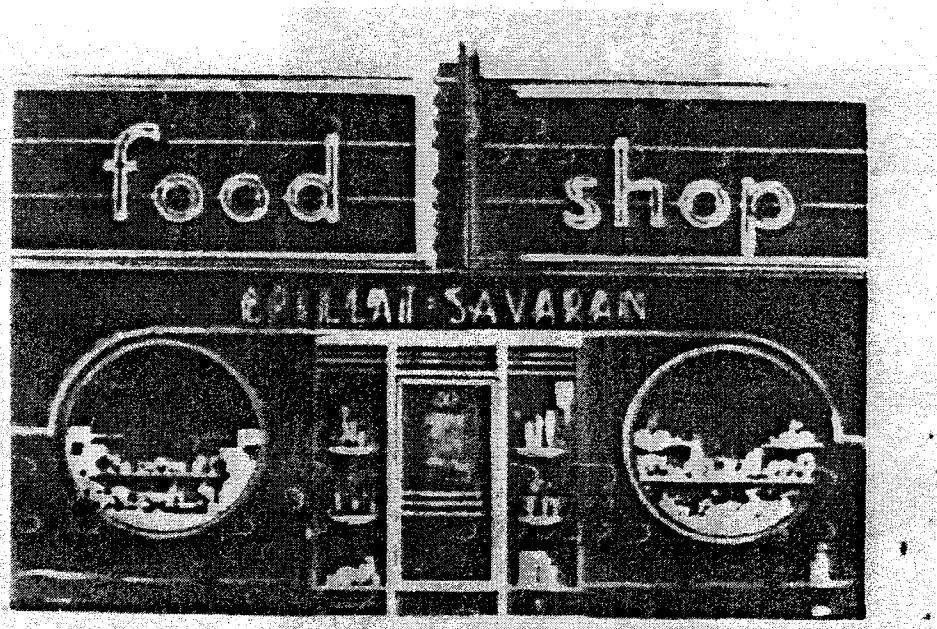
Illus. 15. "The Spirit of Transportation", Herman Sachs, for Bullocks-Wilshire Dept. Store, 1928.



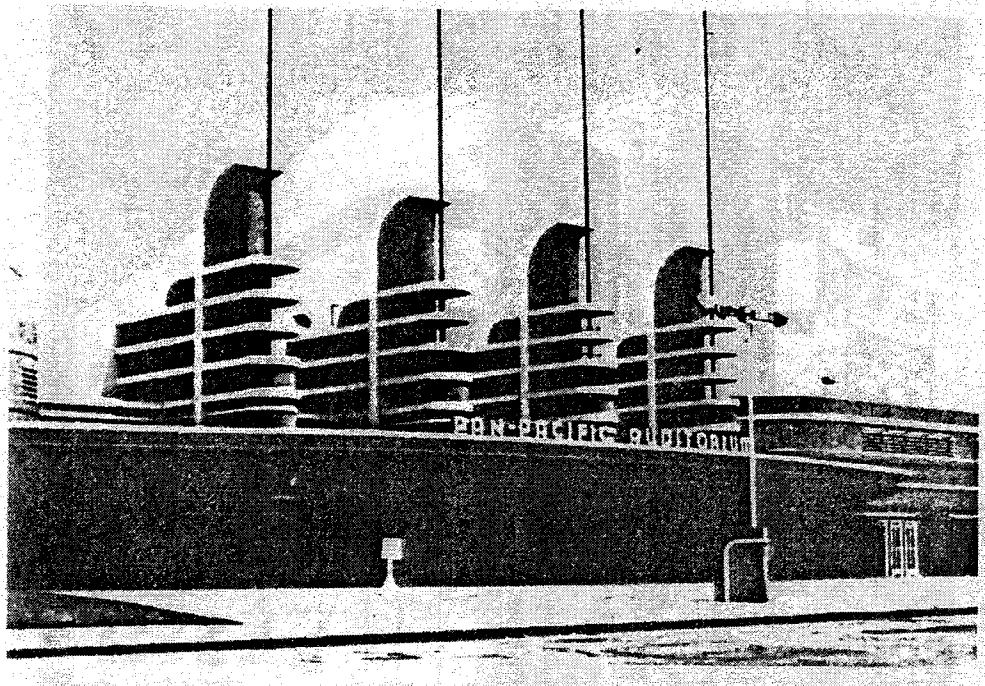
Illus. 16. "The Automobile of the Future", Raymond Loewy, 1938.



Illus. 17. Printing plant, American Education Press, Columbus, Ohio, Richards, McCarty and Bulford, 1937.



Illus. 18. Design for a food store, Newland Van Powell, 1935.



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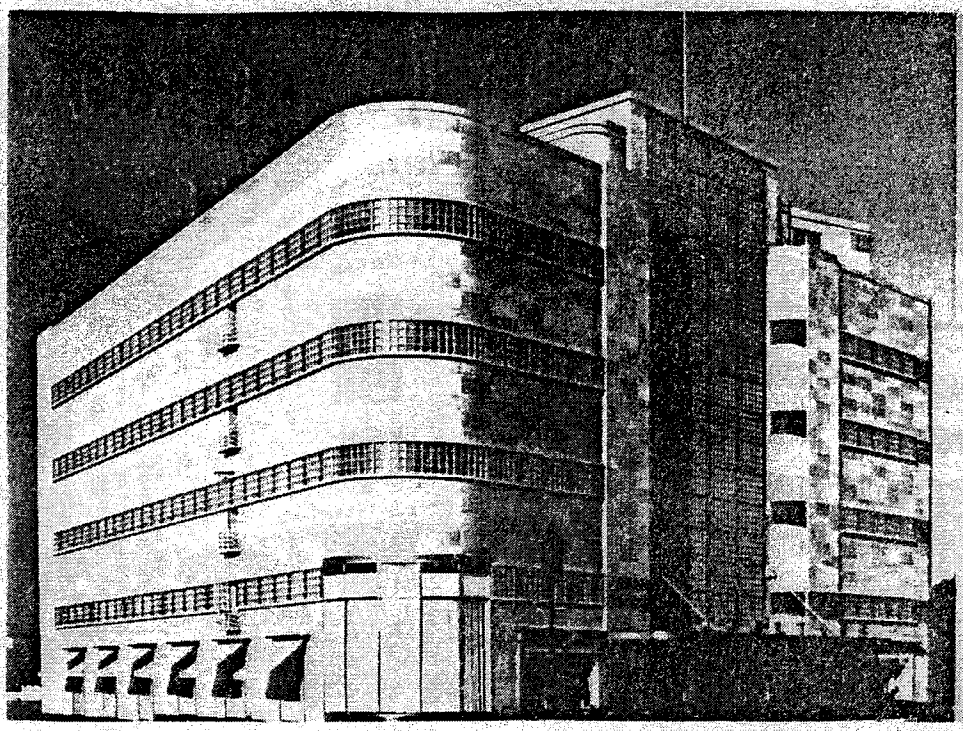

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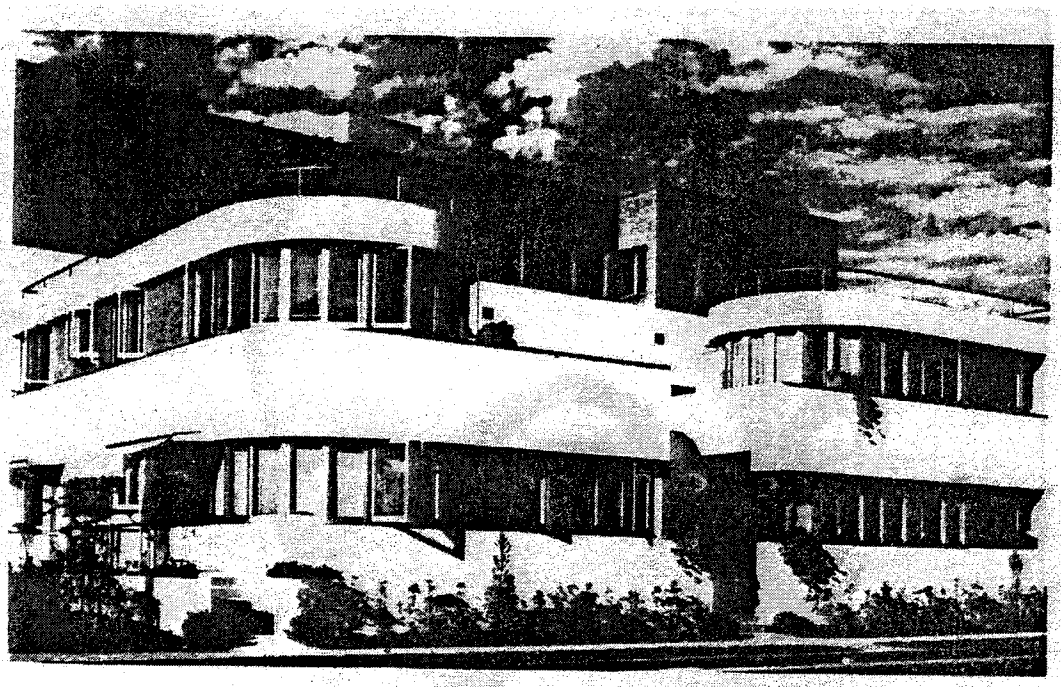
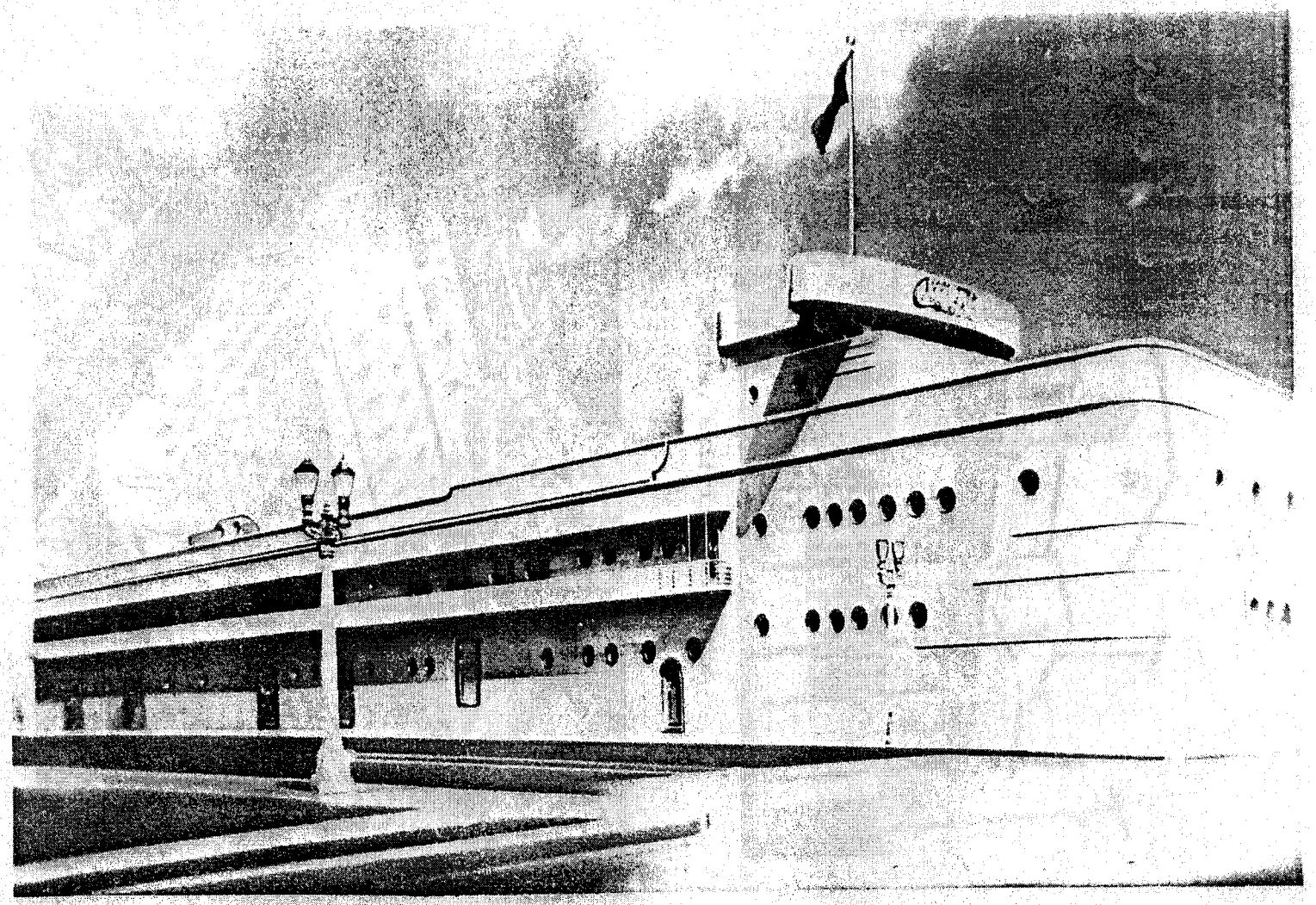


Illus. 22. Apartment, Los Angeles, Milton Black, 1938.

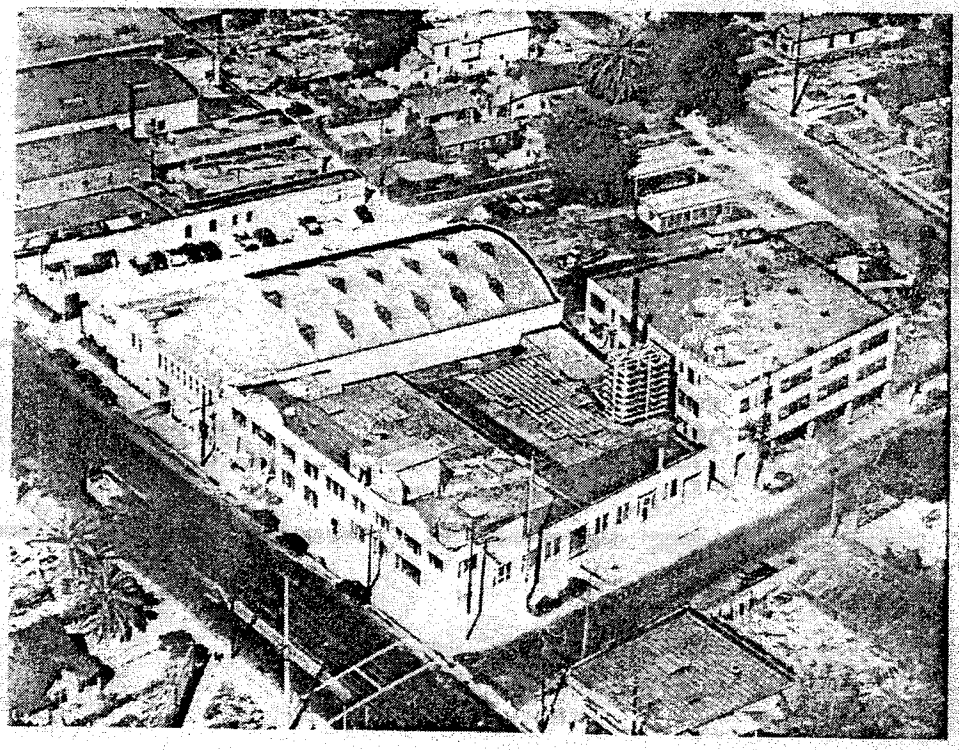
Illus. 23. Shangi-La Apartments, Santa Monica, William E. Foster, 1940.

Illus. 24. Robert Vincent Derrah, about 1940.

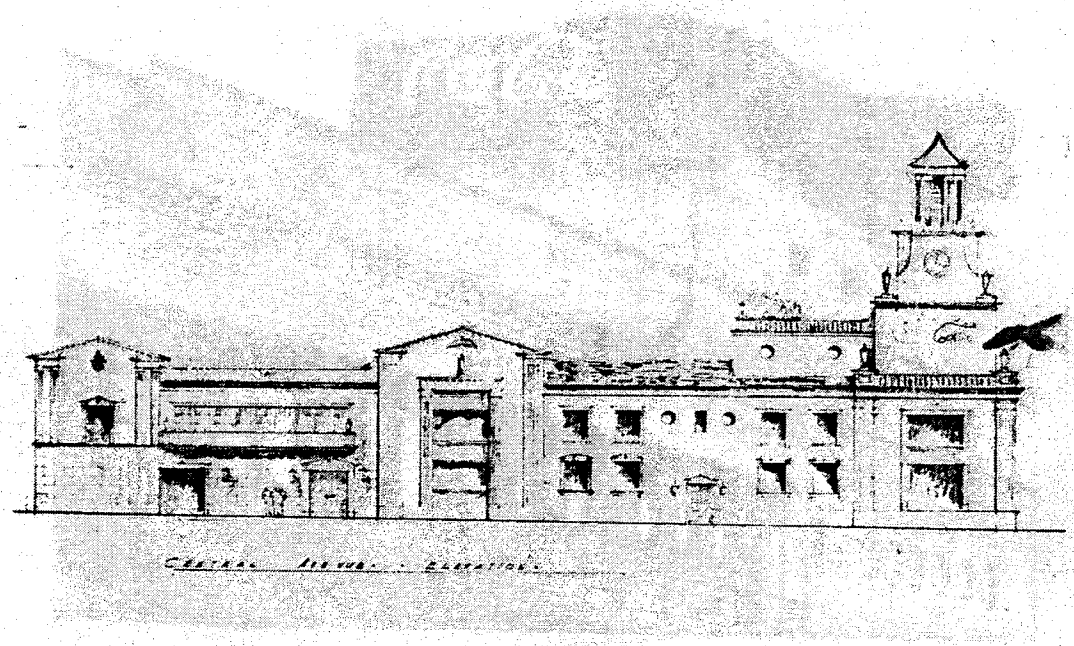


Illus. 25. Bottling plant and offices, Coca-Cola, Los Angeles, 1936.

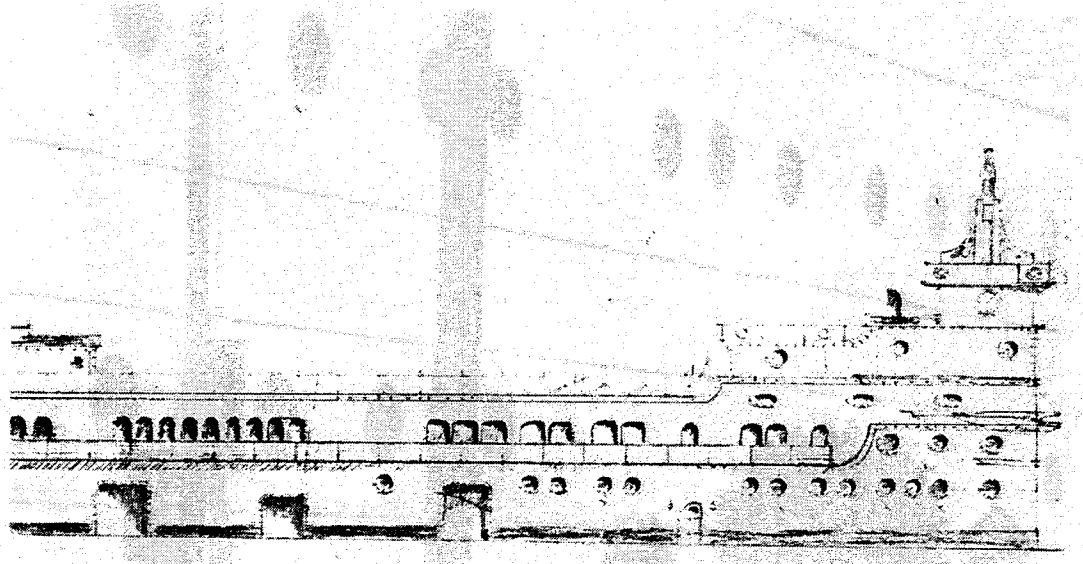
Illus. 26. Coca-Cola, existing buildings.



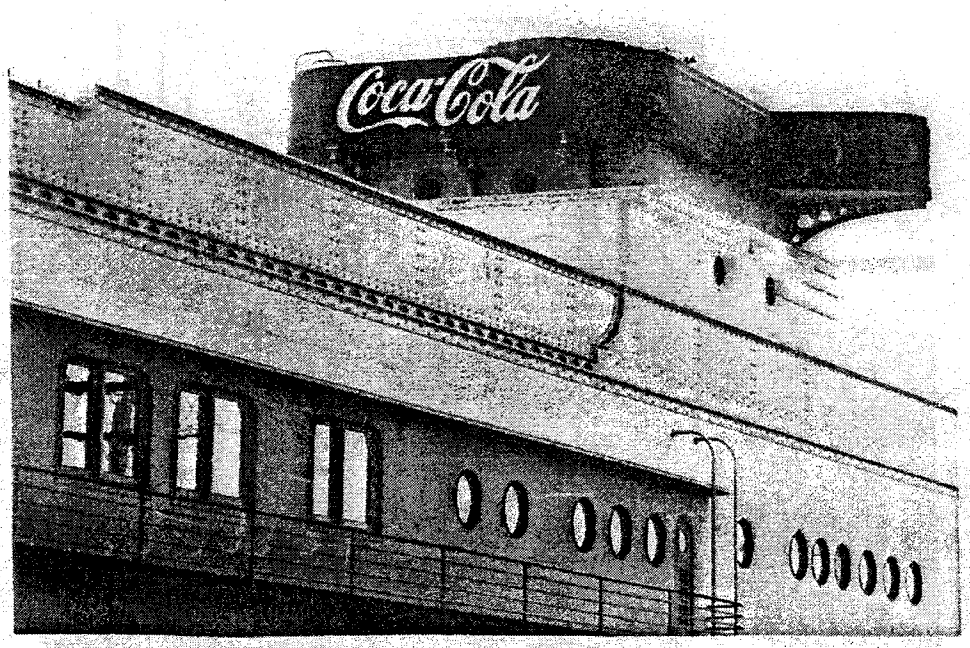
Illus. 27. Aerial photo of existing buildings.



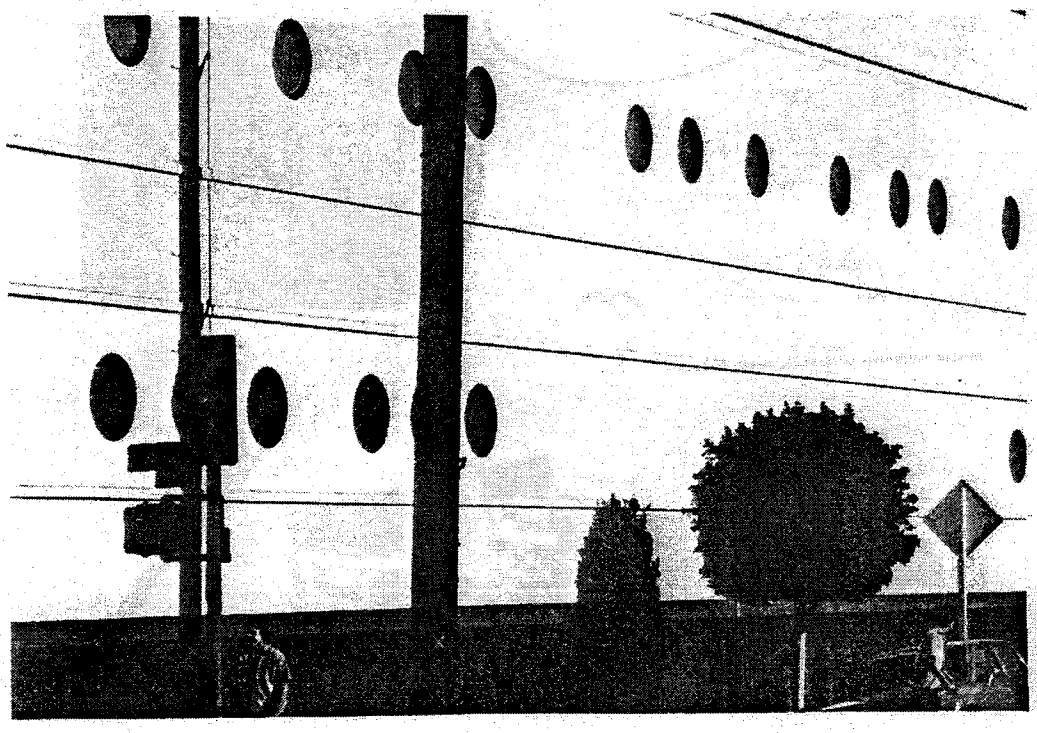
Illus. 28. Coca-Cola, first proposal.



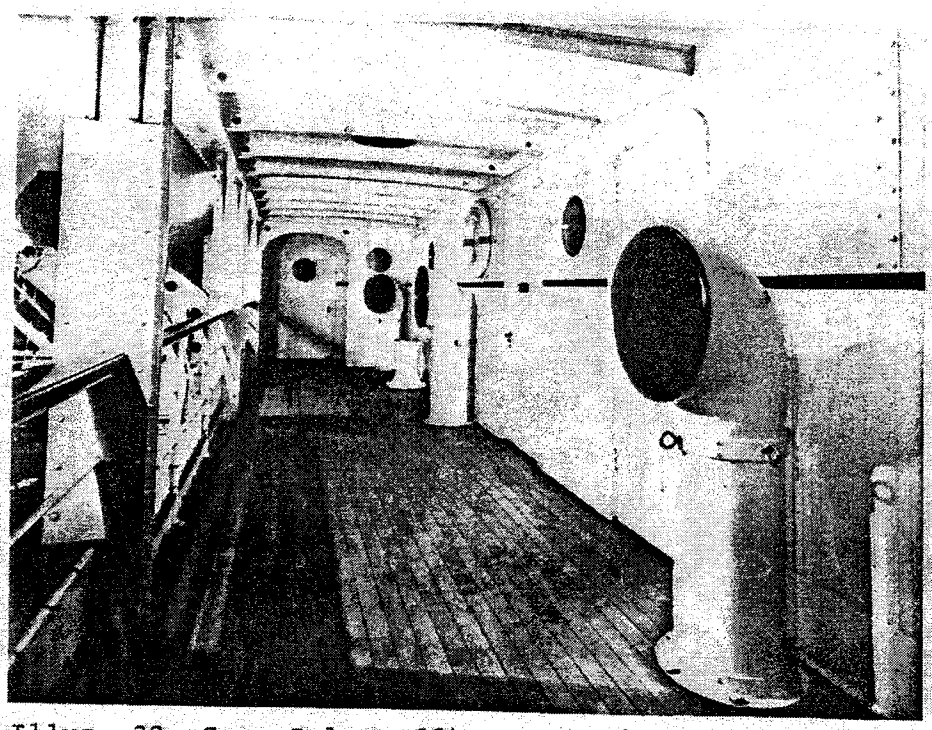
Illus. 29. Coca-Cola, second proposal.



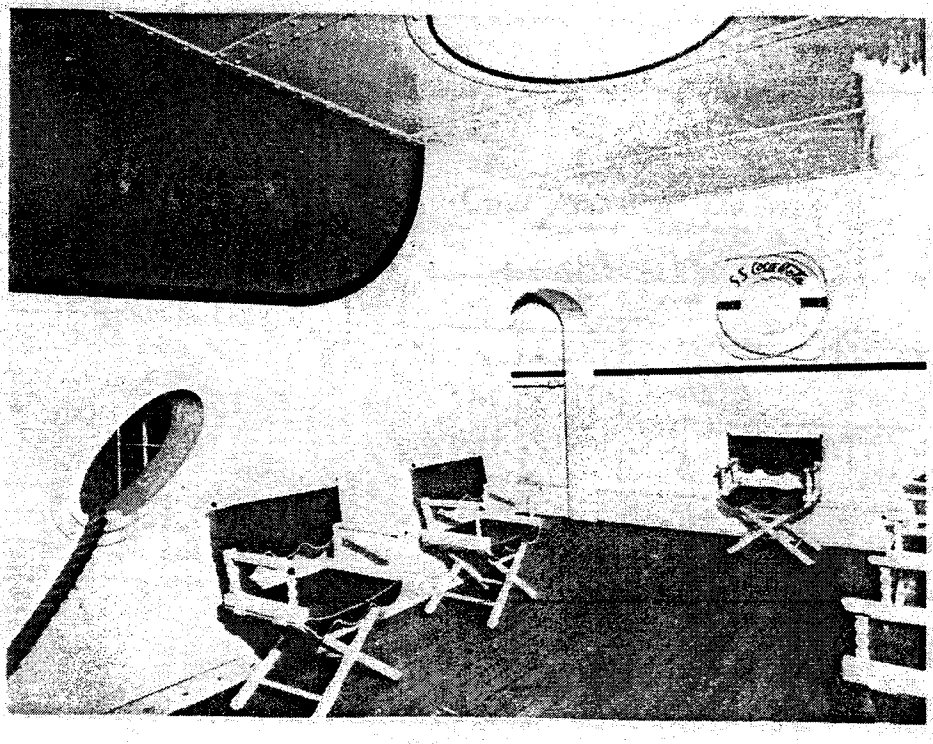
Illus. 30. Coca-Cola, ship's bridge.



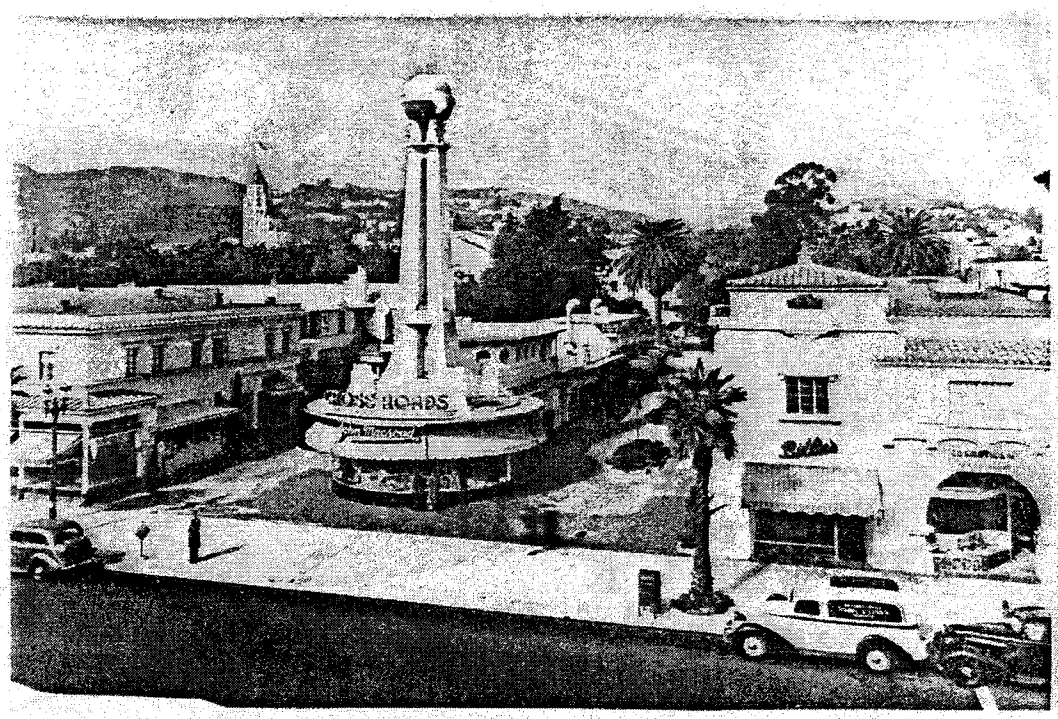
Illus. 31. Coca-Cola, 14th Street facade.



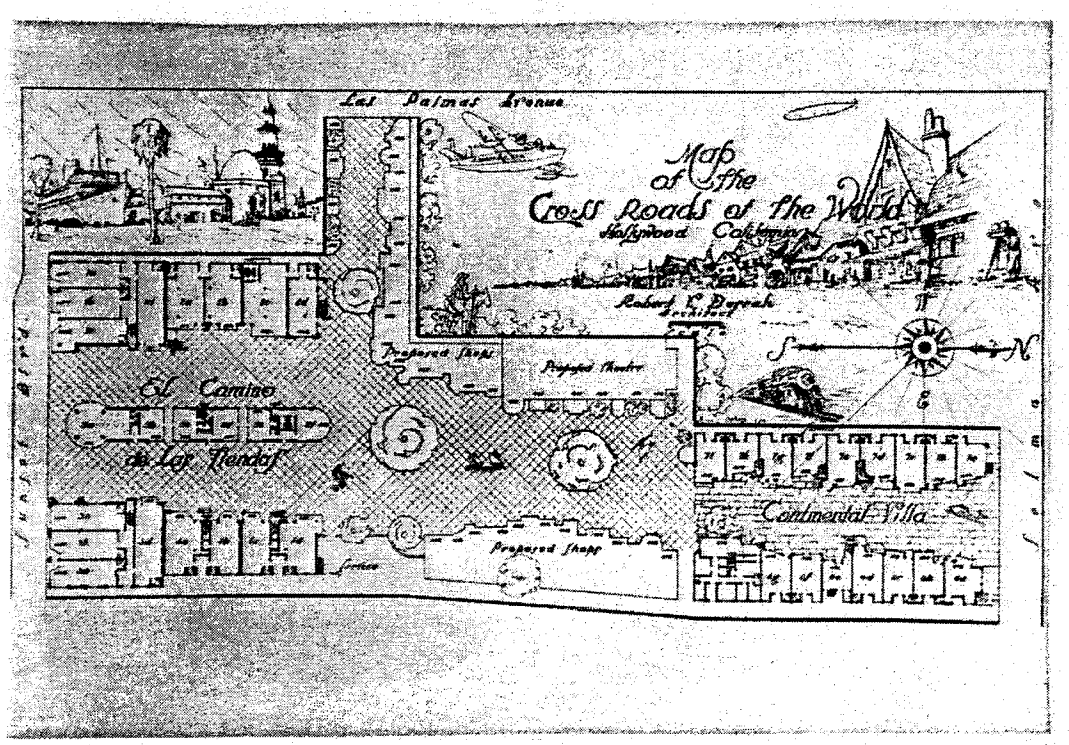
Illus. 32. Coca-Cola, office mezzanine overlooking production area.



Illus. 33. Coca-Cola, ante room.

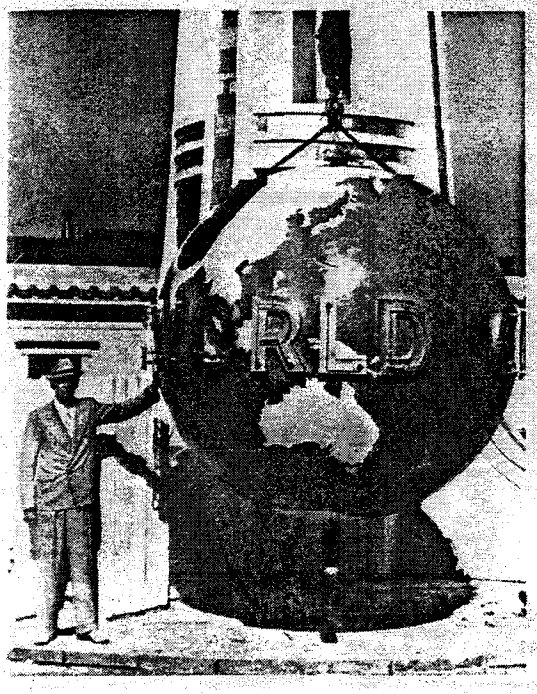


Illus. 34. Cross Roads of the World Shopping Center, Hollywood, 1936.

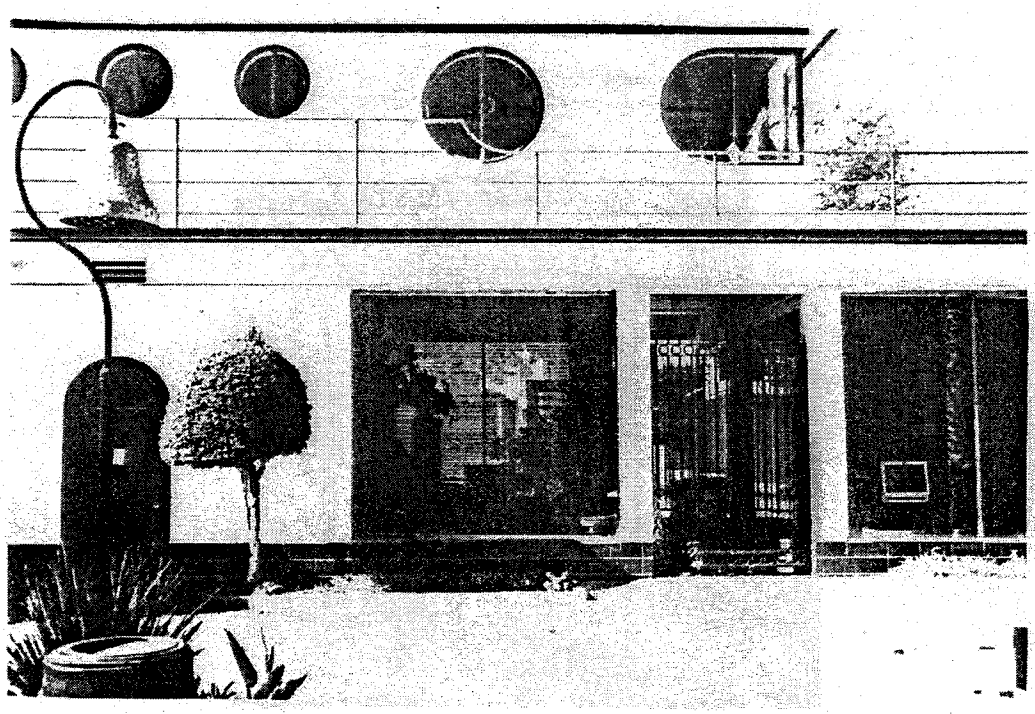


Illus. 35. Cross Roads of the World, plan.

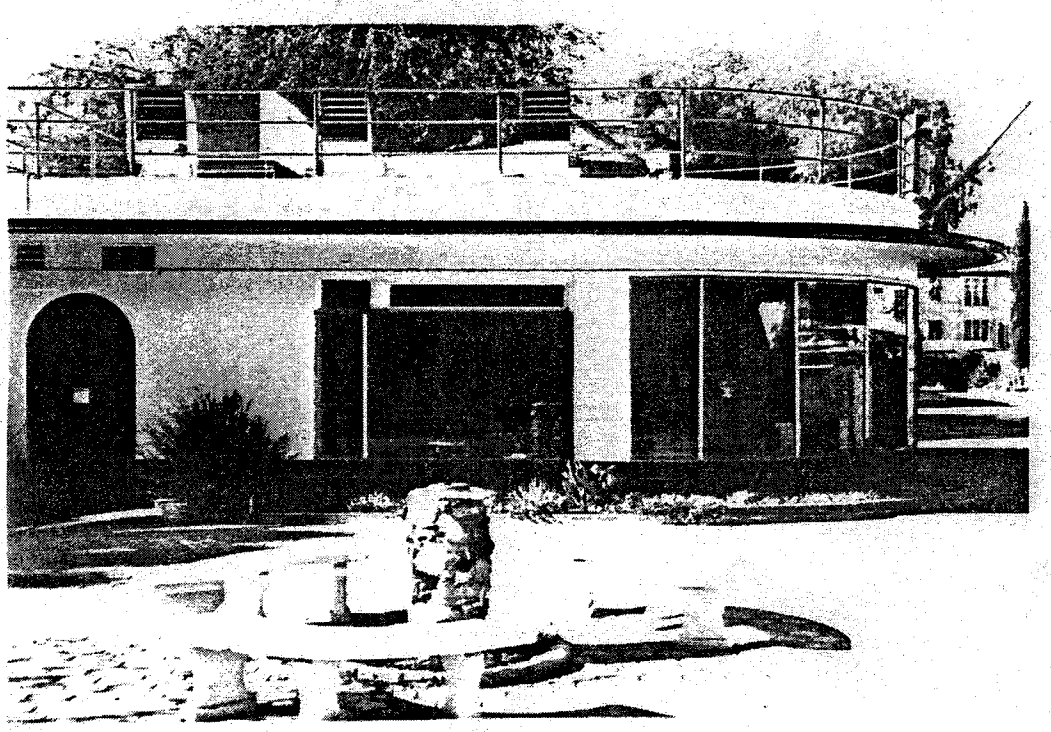
Illus. 36. Cross Roads of the World, Nautical building.



Illus. 37. Cross Roads of the World, Robert Derrah and revolving globe.

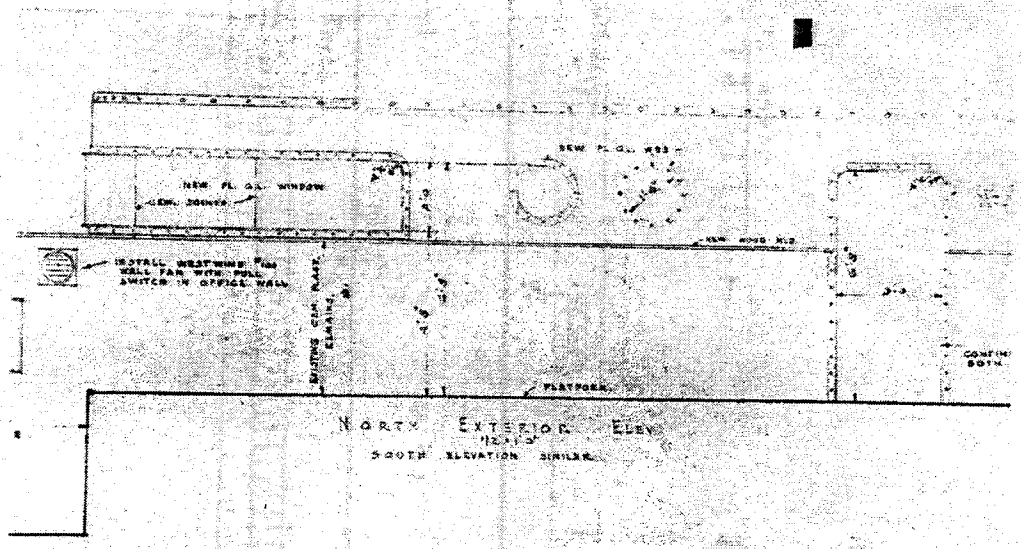


Illus. 38. Nautical building, pilot house.

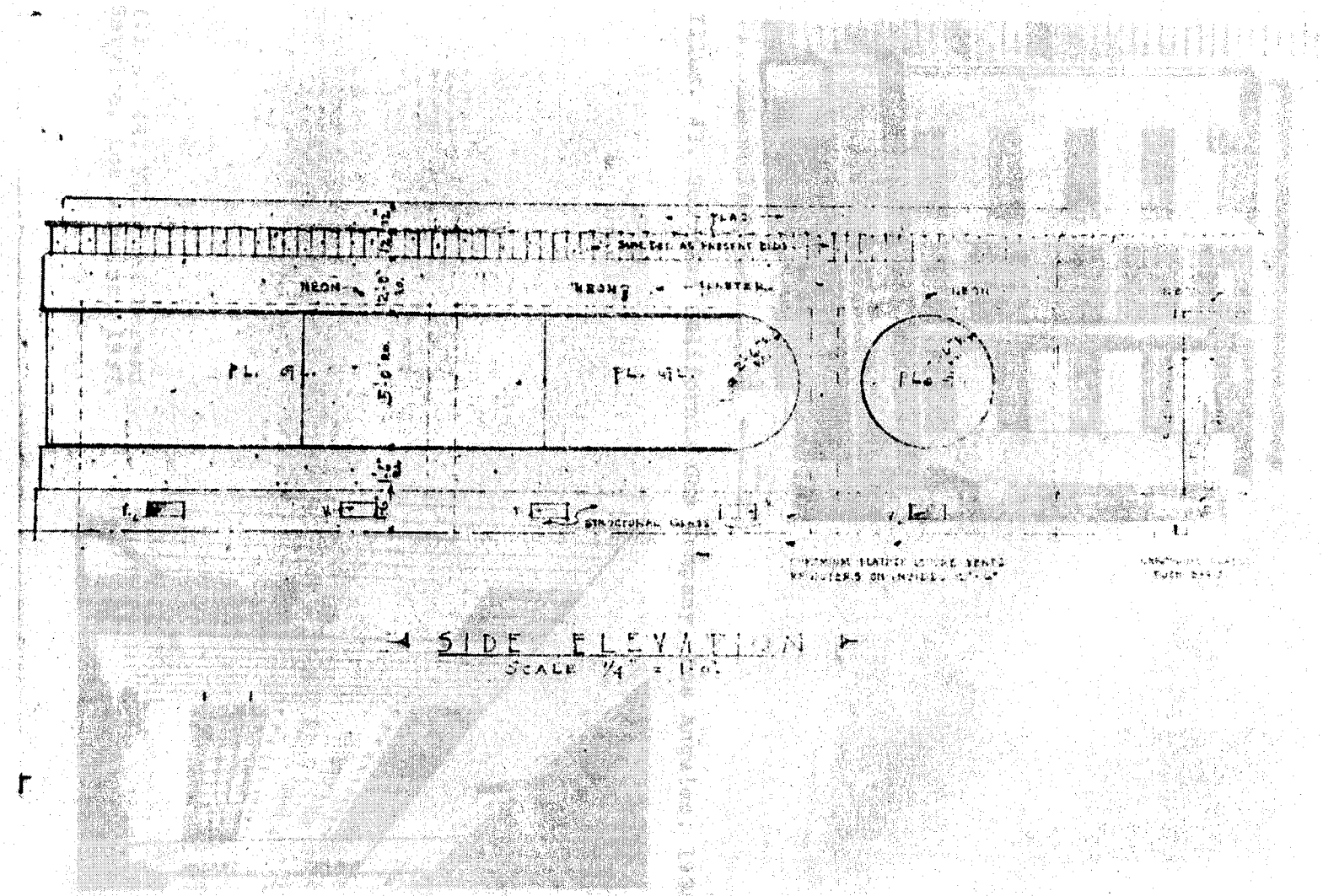


Illus. 39. Nautical building, stern.

Illus. 40. Nesbitt Fruit Products, Los Angeles, 1937.

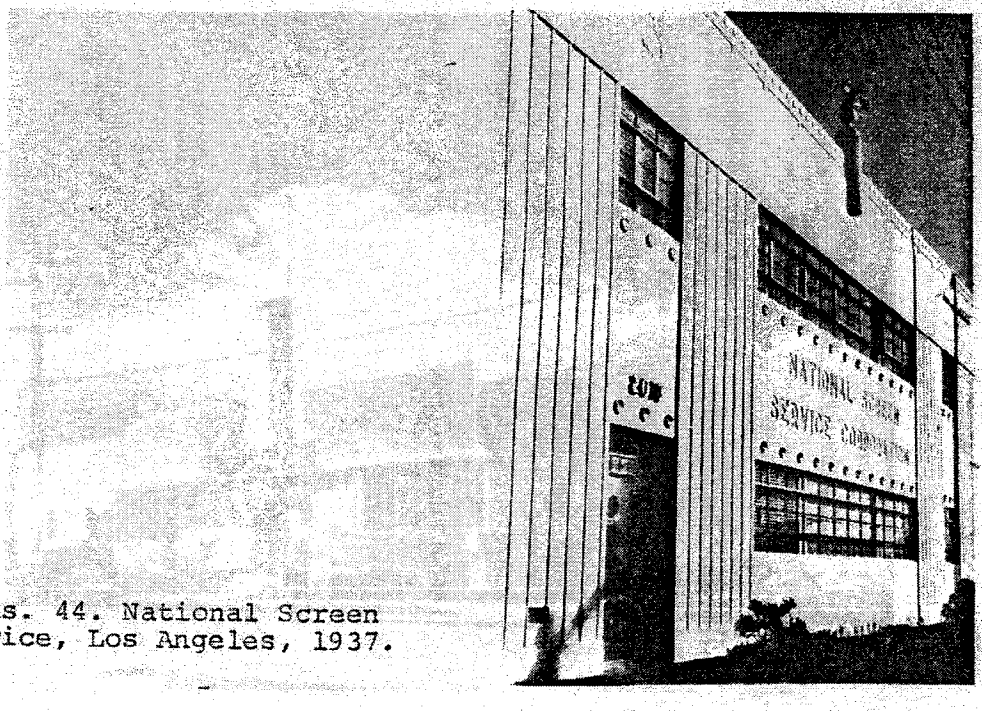


Illus. 41. Nesbitt Fruit Products, proposed laboratory remodeling, 1939.

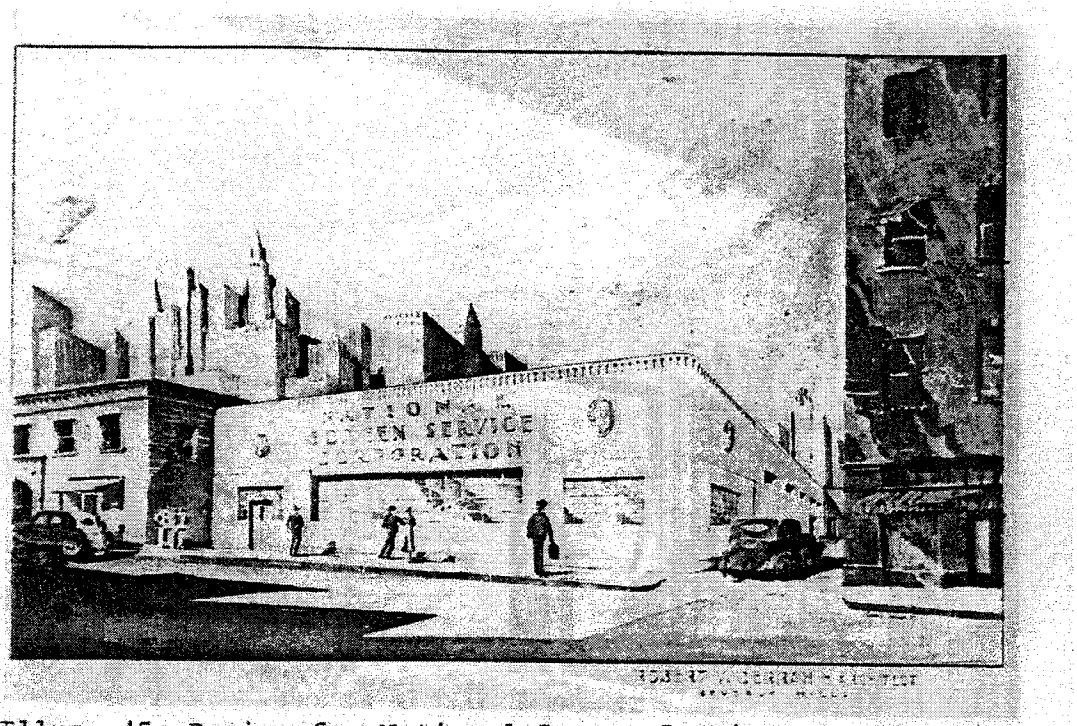


Illus. 42. Design for a restaurant, Beverly Hills, 1938.

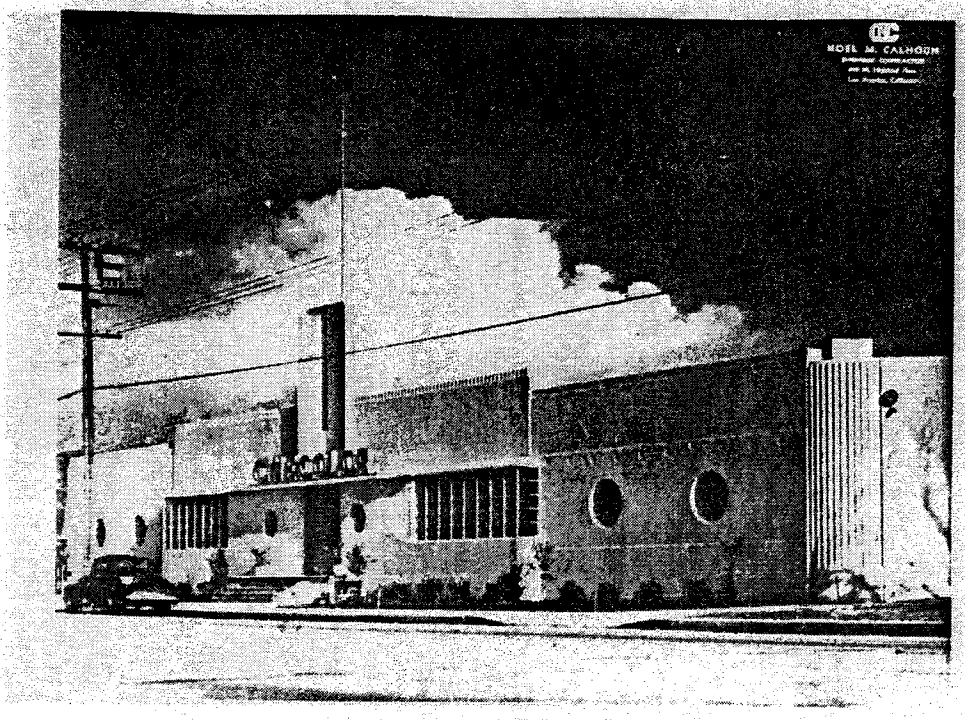
Illus. 43. Southern California Gas Company, Los Angeles, 1938.



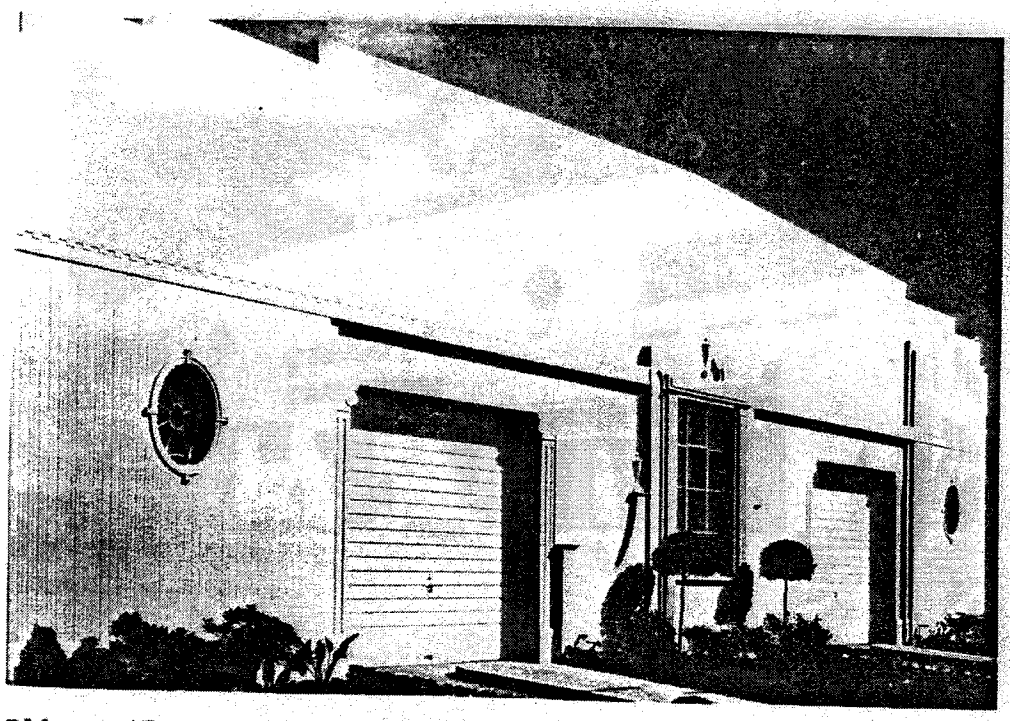
Illus. 44. National Screen Service, Los Angeles, 1937.



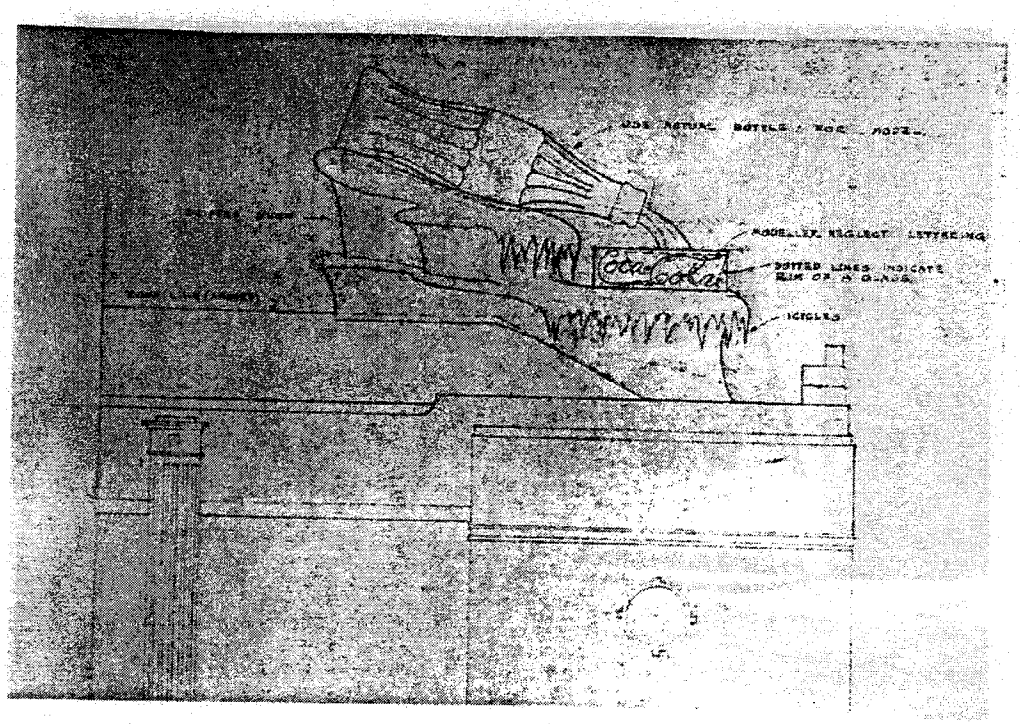
Illus. 45. Design for National Screen Service, San Francisco, 1937.



Illus. 46. Cinecolor, Burbank, 1938.

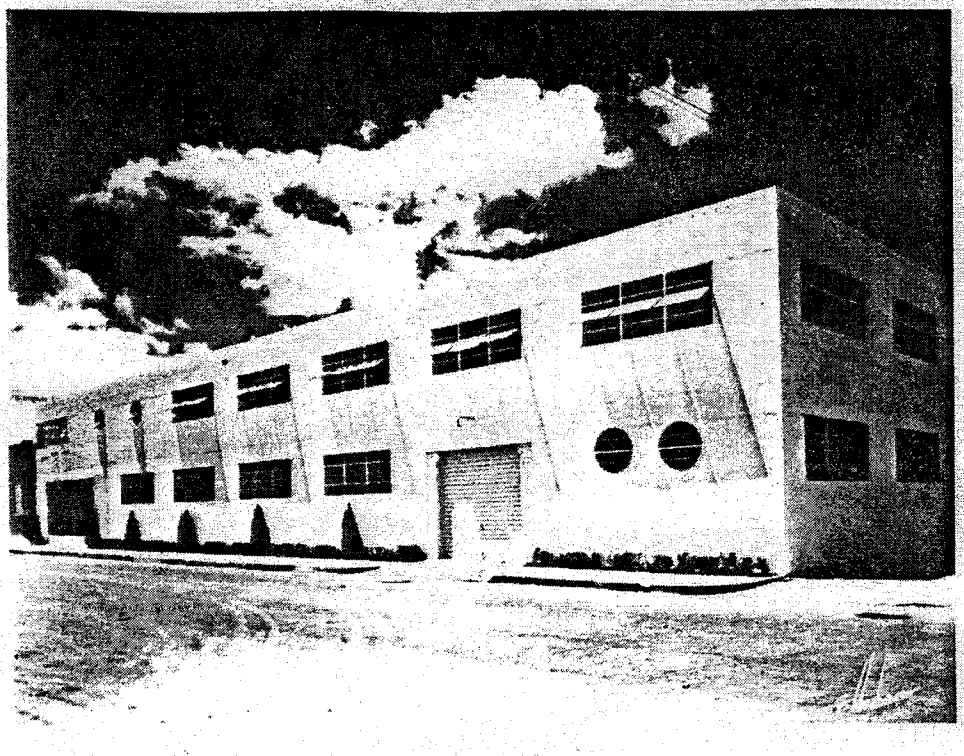


Illus. 47. Coca-Cola, Pasadena, 1935.



Illus. 48. Coca-Cola, proposed roof treatment.

Illus. 49. Coca-Cola, Waco, Texas, 1938.



Illus. 50. Coca-Cola, rear elevation.