

Chapter 15

THE ON-AGAIN, OFF-AGAIN HISTORY OF THE FORD BUILDING IN BALBOA PARK

*We don't want tradition. We want to live in the present
and the only history that is worth a tinker's damn is the history we
make today.*

Henry Ford

Architect Albert Kahn's Ford Building, design for the 1933-1934 Chicago Century of Progress, was a simple rotunda, grooved and stacked on the outside to look like an automobile gear.(1) In 1936, the Ford Motor Company moved the pavilion to Dearborn, Michigan. The Company used the building as a display room until 1962 when it burned down.

Industrial Designer Walter Dorwin Teague used Kahn's designs for the Century of Progress Ford Building and for the General Motors Building as sources for the building put in Balboa Park, San Diego, for the 1935 California-Pacific International Exposition. The gear symbolism and circular shape came from the first, the four-door entrance with framing windows above and tall tower came from the second. Preliminary drawings called for a 350-ft. diameter, 41-ft. high ring, surrounding a 186-ft. diameter patio. A 100-ft. entrance tower would stand on the north side. The tower was to rise in three-telescoping stages to 198 ft. Total floor area came to 113,000 sq. ft.(2)

The Ford Company reduced specifications before construction began.(3) Executives told Teague to cut the tower to 90 ft., the diameter of the main ring to 300 ft., (4) and the floor space to about 60,000 sq. ft.(5) San Diego architects Richard Requa and Louis Bodmer prepared construction drawings and work schedules on the spot as Teague had neither the time nor skill to undertake that duty. Newspaper accounts aside, the building was meant to be temporary.(6) Daley Corporation had the contract for grading.(7) Chris Larsen was the contractor in charge of construction of the building.(8) Described as a "\$2,000,000 Expo Plant,"(9) construction costs came to \$450,000.(10)

Perpendicular blue fins separated gear segments on the tower. Overlapping layers of light, coming from behind the fins, emphasized the curves of the white tower. Some 18,000 hidden electric light bulbs provided lighting to shape the building's convex-concave surfaces.(11)

According to the *San Diego Farm Monthly*, the tower had "the appearance of a block of translucent blue ice, surmounted by a rim of gold."(12)

This statement referred to the painterly "Maxfield Parrish" blue lighting of the building in 1936, not to the more precise, black-white sculptural treatment in 1935. To Teague, color and lighting were not ends, but means of attracting attention to more fundamental shapes and rhythms.(13)



The circular Ford Building was not streamlined in the same teardrop or ovoid manner as the automobiles, steamships, and passenger trains of the 30's.(14)

Though he used a modern, cylindrical design, Teague believed the principles of good design were timeless.(15) As a result, the fluting and indirect lighting of the entrance tower recalled the lines and shadows of a Greek column.

In his Ford Buildings in San Diego, Dallas and New York City, Teague tried to show that the automobile, the machine, and no-nonsense, functional design could produce an era of wealth and happiness.(16) Like the exhibits, his emphasis was upon process rather than upon product. His

design was as efficient and flowing as an automobile assembly line or the on-off ramps of a superhighway. (There was no Ford Building as such at the 1939-1940 Golden Gate International Exposition in San Francisco, as the Ford Exhibit was housed in the Oriental-style Court of the Pacific compound, designed by Timothy Pflueger.)

Entering and exiting in the rotunda, the San Diego visitors moved along semicircular corridors, starting at the right, viewing exhibits as they went. Guides directed them along their route, while voices from loudspeakers explained the mechanical marvels along the way.(17)

Curving walls beckoned the visitor on to see what was coming next. To allow the visitor a brief respite, exhibit managers put refreshment stands in the patio and on the rear terrace, halfway round. Continuing their course, the visitors arrived at the starting point.(18)

In keeping with Henry Ford's idea that art should promote industry, (19) painted murals and dioramas figured among the building's furnishings. The entrance rotunda, known as "The Court of Nations," contained twelve dioramas around the sides, depicting the production of ore, cotton, bauxite, and other raw materials used in the manufacture of Ford cars. In the center, a revolving hemisphere, composed of twelve dioramas, showed the use of motor cars in each of twelve Pacific nations.(20)

Beyond the entrance, two pillars, carrying 40-ft. high murals representing "The Spirit of America" and "The Spirit of Asia," flanked four glass doors with twelve glass panels above, opening into the patio. Charles B. Falls, assisted by Ralph Rich and Abell Sturgess, painted these murals.(21)

In the first section of the main hall, technicians inspected piston pins with a radio machine and tested parts. In the second section, machinists, using gages they kept accurate to within two-millionths of an inch,(22) made iron and steel castings, rolled and shaped steel, and tore down and built up a V-8 engine. Operators went through the motions of assembly-line workers. An exhibit showed the conversion of soy beans into finishing oils and plastic products. In the third section, the Ford Motor Company displayed the first Ford car built in 1896, a Quadricycle Runabout, the first Model T built in 1908, and the first Model A built in 1927. One assumes that the luxury

Lincoln-K series (1931-1939), the responsibility of Edsel Ford, were displayed, though few could afford to buy them.

The San Diego Exposition Company estimated Henry Ford spent \$1,500,000 to advertise his Company's automobiles.(23)

Workers paved the patio with desert stone. A V-8 figure, made with colored cement and pools of water, provided a central focus. Pepper trees and palms, planted along the sides, added color. To complement the fountain, new (1935) Standard and De-Luxe Ford V-8's, with body styling by Edsel Ford and Eugene T. Gregorie, were placed around the perimeter of the patio. Besides twice-daily symphony concerts in the Ford Bowl, east of the Ford Building, a South-American group gave daily concerts in the patio.(24) At night, lighting flooded the fountain and accented the curves of the tower.

At the south end of the building, overlooking downtown San Diego and the harbor, a 220-ft terrace and flights of stairs led to the 2,800-ft. "Roads of the Pacific," where 1935 Ford V-8 cars took visitors over a continuous route along the sides of a canyon landscaped into fourteen different sections, including the Summer Palace Road in China, the Tokaido in Japan, the Ballarat Road in Australia, the Inca Highway in Peru, the Oregon Trail, the old Yuma Road, and El Camino Real.

The Ford Motor Company duplicated "Roads of the Pacific" as "Roads of the World" which it installed as part of the Dearborn, Michigan Museum (former Century of Progress Pavilion) in 1936. To broaden its scope it added five more sections, bringing the total to 19. In place of the Wooden Plank Road to Yuma, Arizona, it added a wooden plank section from Woodward Avenue in Detroit. The one-half mile "Road of Tomorrow" aerial ramp and winding circuit incorporated into the 1939 Ford Building at the New York World's Fair, created by Albert Kahn from designs by Walter Dorwin Teague, was a prophetic variation on the road's theme, this time as a super highway for cars moving at faster speeds than they did over the narrow trails of "Roads of the Pacific" and "Roads of the World.".. The noisy Cabrillo Freeway, in its own right a less ambitious version of "Road of Tomorrow," which today passes below the west side of the Ford Building in Balboa Park did not exist in 1935.

Colonel Ed Fletcher, state senator and a promoter-financier of the old Yuma Road, drove the first car over "Roads of the Pacific," to mark the dedication of the Ford Building, May 29, 1935.(25)

The contrast of opposing masses and clean appearance of the nautical south deck of the Ford Building so delighted Teague that he included a photograph of this detail in his book *Design This Day*.(26)

In his design for the Ford Building, as in his designs for mimeograph machines, movie cameras, and self-service stations, Teague tried to reveal pure, self-sufficient geometric forms.(27) In their simplicity and efficiency, these appliances heralded a new age of order and consumer abundance. The stark frank formality of Teague's creations recalls the famous poem. *The Red Wheelbarrow*, by William Carlos Williams in which the viewer is asked to see the object as it exists—"no ideas but in things"—without false allusions, literary associations or philosophical ponderosities.

so much depends
upon

a red wheel
barrow

glazed with rain
water

beside the white
chickens.

In his book, *Design This Day*, published in 1940, toward the end of the Depression and about the time Hitler was invading Norway (April/May 1940), Teague expressed his hope that the new modern functional design he and his fellow industrial designers—Norman Bel Geddes, Henry Dreyfuss and Raymond Loewy—was creating could bring about a New World of comfort, peace and harmony.

We walk between catastrophe and apotheosis. In spite of the mighty destructive powers that threaten us, our vision of a desirable life was never so clear and our means of realizing it never so ample.(28)

As an industrial designer specializing in “packaging” for which the word “cover-up” might be a suitable synonym, Teague did not allude to the inhumane working conditions on the assembly line, so graphically described by Louis-Ferdinand Celine in *Journey To the End of the Night* or to the “reign of terror” instituted by Henry Ford and his supervisor in charge of security Harry Bennett, whose goons snooped on workers, compelled them to work at ferocious speeds, forbade them to talk, and harassed union organizers. Because of the extraordinary unemployment at the time in Detroit and the rest of the nation, workers at the plant and the American public generally sided with Ford in his union-busting campaign. It was not until the famous overpass incident in 1937 when Automobile Workers of the World leaders Walter Reuther and Richard Frankensteen were beaten by Bennett’s goons, that public sentiment began shifting away from Ford. Since conservatively-oriented newspapers in San Diego and the Ford Company were not anxious to publicize such offensive actions, onlookers at the San Diego Fair were probably unaware of them.

Celine’s description follows:

It’s sickening to watch the workers bent over their machines, intent on giving them all possible pleasure, calibrating bolts and more bolts, instead of putting an end once for all this stench of oil, this vapor that burns your throat and attacks your eardrums from inside. It’s not shame that makes them bow their heads. You give in to noise, as you give in to war. At the machines you let yourself go with the two-three ideas that are wobbling about at the top of your head. And that’s the end. From then on everything you look at, everything you touch is hard. And everything you still manage to remember more or less becomes as rigid as iron and loses its savor in your thoughts.

(Ferdinand-Louis Celine, *Journey to the End of the Night*, translated from the French by Ralph Manheim, A New Directions Book, 1983)

None of this stench or noise was present in the Ford Building at San Diego.

Excavation crews broke ground for the Ford Building March 2, 1935. Teams working around the clock, in three shifts of eight-hours each, completed the building in time for the May 29 opening, just 88 days later.. When the Exposition closed November 11, 500,694 people had ridden over

"Roads of the Pacific," and 2,722,765 had visited the Ford Building exhibits, making it the Fair's most popular attraction.(29,)

The California-Pacific International Corporation opened its 1936 season on February 12; however, the Corporation delayed reopening the Ford Building, which it renamed "The Palace of Transportation," until March 15. Workers blocked out the tall red letters on the tower spelling out "FORD" and substituted the word "TRANSPORTATION." (30) The Ford Motor Company had moved its exhibits to the Texas Centennial in Dallas. To make up for missing exhibits, Henry Ford sent historic and modern vehicles from his Dearborn, Michigan Museum for display in the rotunda.(31)

On the inner floor of the main hall, a 20-ft. high, 450-ft. long, 17,000 sq. ft. mural, "The March of Transportation," by Juan Larrinaga, assisted by Arthur Eneim and Albert McKiernan, depicted the development of transportation from caveman to spaceman. Murals in the rotunda portrayed horse-drawn vehicles and automobiles in use between 1899 and 1924.(32) P. T. Blackburn, Mahlon Blane, and Nicholas Reveles executed the murals. They replaced giant photographs by Teague representing the Ford River Rouge industrial cycle, and lettered aphorisms by Henry Ford illustrating his industrial and social philosophy.(33)

In the main hall, the overhead March of Transportation mural complemented a floor display of real and model trains, buses, airplanes, gliders, and automobiles. The painting of the National Geographic Balloon Explorer II's twelve and one-half mile ascent, November 11, 1935, from the Black Hill in South Dakota on the wall of the south mezzanine lent interest to the actual gondola and instruments immediately beneath.(34)

Santa Fe showed a replica of its railroad system from Chicago to the Pacific coast with miniature trains operating on schedule. Southern Pacific installed the "C. P. Huntington" locomotive, which the Central Pacific Railroad had used on short passenger runs in the 1860's, and Baltimore and Ohio installed the 1835 "Thomas Jefferson" engine and the 1837 Nova Scotia coach "Pioneer." (35) Union Pacific displayed two miniature trains—a conventional and a streamlined model—passing through dioramas of the Grand Canyon, Boulder Dam, Zion Canyon, and Bryce Canyon. The Russian government mounted a travel-information booth next to the Union Pacific exhibit.(36)

Motion picture studios, individuals, and museums loaned transportation models—including an Egyptian ceremonial boat of the 12th Dynasty, an 1190 A.D. Chinese junk, a 1490 A.D. Spanish galleon, an Eskimo whaling boat, an 1809 A.D. Gloucester fishing schooner, a 1917 A.D. Nieuport scouting plane, and a 1934 A.D. Waco cabinplane.(37)

The 1936 Exposition closed September 9. Attendance figures for specific attractions are lacking; however, approximately 2,436,000 people attended the Fair in 1936 as compared to 4,784,811 in 1935.(38) If the ratio of visitors to total attendance was the same as in 1935, approximately 1,388,520 people visited the Transportation Building in 1936.

In the middle of 1936, San Diego businesspeople proposed using the Ford Building as an auditorium. On July 21, architect Louis Cowles wrote a detailed response in which he praised the Ford Building as "the most impressively beautiful of all large buildings in San Diego," and condemned the plan: "It is beyond doubt that so many sacrifices of ideal design would be induced in effort to accommodate old work not meant for them, the whole would become a lamentable tragedy." (39)

Proposed uses for the Ford Building over the years include an Indian and Fisheries Building (1936), an exhibit hall and restaurant (1936), a roller skating rink (1937), a public library (1937), an armory (1938), a rifle range (1948), an aquatic coliseum (1950), a trade show building (1957), a home for the Museum of Man (1957), a convention center (1958), a civic auditorium (1959), a fallout shelter (1960), a parkade (1960), a science center (1963), a Spanish pavilion (1968), a Mexican cultural center (1970) and an aerospace museum (1972).(40)

On May 13, 1938, the City Council formally designated the Ford Company's gift to San Diego as the Ford Building.(41) The Council, on July 11, 1940, accepted a bronze tablet for placement on the Ford Building bearing the inscription: "The Citizens of San Diego appreciate the gift of this building by Henry and Edsel Ford 1935." (42) The Ford name having fallen into disuse, the Council, July 1, 1948, reaffirmed its prior designation.(43)

In 1940, the 251st. Coast Artillery used the Ford Building as a technical school. During World War II, the San Diego Vocational School used it as an annex to train aircraft employees.(44)

As the Navy did not use the Ford Building during the war, the City chose not to use the money paid by the Navy in 1948 for wartime use of Balboa Park to rehabilitate the building.

From 1946 to 1977 stage-set designers used the Ford Building for storage and as a working area. The City Park and Recreation Department occupied the basement.

A Balboa Park Citizens Subcommittee examining buildings in the park in 1957 evaluated the appearance of the Ford Building as "fair" and stressed its retention "depends upon use considerations and considerations of the unusual area available for exhibit purposes." (45) The *San Diego Union* reported another subcommittee, looking at cultural uses for buildings, favored making the Ford Building "available for the Museum of Man or another exhibit of unusual interest." (46) This recommendation does not, however, appear in the subcommittee's final report.(47)

In 1959, the architecture firm of Paderewski, Dean and Associates prepared a design and feasibility study of the Ford Building for the Convention and Tourist Bureau.(48) The purpose of this study was to show how readily the building could be converted into a convention hall. In 100 percent disagreement with Louis Cowles's study of 1936, the new group recommended putting a 3,750-seat, dome-enclosed auditorium in the open-air patio with added seating and committee rooms in the shell. The group estimated costs at \$1,304,000 plus costs of furnishings and seating.(49) If the number of seats were increased to 5,000, costs would mount to \$1,680,000.(50)

The 1960 *Harland Bartholomew Master Plan for Balboa Park* went beyond the 1957 Buildings Subcommittee's instructions to prepare "a master plan for Balboa Park that will preserve present useful buildings and the architectural pattern than has been so long accepted." (51) The Bartholomew planners found the Ford Building to be lacking in architectural significance, to be thematically unrelated to other 1915 and 1936 exposition buildings, and to be so dilapidated the cost of restoration would exceed the price of a new building. In place of rehabilitating, the planners recommended a large, landscaped overlook with a fountain centerpiece.(52)

Despite their negative appraisal, the structural analysis completed by the Bartholomew firm gave proponents of reuse new hope. The planners found the Ford Building's reinforced concrete foundations, basement, steel columns, and steel roof trusses in useful condition. To reuse the building new plaster walls and struts, floors, ceiling, roof, plumbing, wiring, sprinkler system, and firewalls would have to be installed, and skylights in the main exhibit area would have to be repaired.(53)

As part of a convention hall feasibility study, the City, in 1961, paid S. B. Barnes and Associates \$662.50 for an engineering report on the Ford Building.(54) The purpose of this study was to reconcile differences in cost estimates for rehabilitating the Ford Building given by the Bartholomew planners and by the Paderewski study group. The report decided rehabilitation would cost more than Paderewski's estimate, but less than Bartholomew's. (55) As the City had decided to build a convention center at Second and C Street, reuse of the Ford Building for this purpose had become moot.

On February 15, 1963 Preston M. Fleet, son of the founder of Consolidated Aircraft, and U.S Navy Captain Norvel R. Richardson established an aviation and space museum in the Food and Beverage Building in Balboa Park. The building proved unsuitable, so in June 1965, the museum directors moved its expanding collection into the Electric Building. The move was a temporary measure as the Electric Building was defective on many counts and also an obvious firetrap. So, museum directors began looking for a new and, hopefully, permanent location.(56) As the Ford Building offered 54,000 sq. ft of exhibit space to the Electric Building's 30,000 sq. ft., directors considered it an ideal replacement.(57)

Meanwhile, the Park Department allowed Artistas del Barrio to use the Ford Building for arts, crafts, music, ballet, and folk dancing. As the Aerospace Museum directors had secured political support for their contemplated move, the Artistas were compelled to vacate the building in 1971. The Park Department found a new home for the group, now called Centro Cultural de la Raza, in a former water tank next to Balboa Park's Pepper Grove.(58)

Paderewski, Dean and Associates submitted a second study of the Ford Building to the City in June 1970.(59) The City paid \$21,099 for the study, including \$16,000 for the firm's fee and \$5,099 for specialized testing

and city force work. (60) Paderewski's goal was to show how readily the Ford Building could be turned into an aerospace museum. The rotunda, at the myopic request of the Committee of 100, was to be given a Spanish-face treatment, with part of the tower cut off and with massive arches on the outside. Mzzanine space at the south was to be contracted and rearranged, tunnel exits were to be dug from the patio to the exterior, tenant space was to be provided in the main ring to the left of the rotunda, and the rotunda was to be separated from the rest of the building by firewalls and by large, open, receding doors. Costs for the transformation would come to \$1.8 million, with \$19,000 of this sum used to restore The March of Transportation mural.

Voters turned down ballot propositions to restore the Ford Building in 1971 and 1972.(61) Cost of repairing came down from \$2.1 million in 1971 to \$1.67 million in 1972. In 1973, voters bypassed a third opportunity to reconvert the Ford Building when they rejected a \$25.0 million general obligation bond to get and develop city parks, which included Ford Building restoration among its programs at a cost to the city of \$850,000. Private donors were to match the city's contribution.(62)

In January 1973, San Diego architect Robert D. Ferris nominated the Ford Building for listing with the National Register of Historic Places.(63) After being reviewed by the staff of the California Parks and Recreation Department, a Landmarks Advisory Committee, the California Historic Preservation Officer, and the staff of the keeper of the National Register in Washington, D.C., the Ford Building was placed on the National Register, April 26, 1973.

Undeterred by voter reaction, a Priorities Subcommittee of the Balboa Park Committee placed the repair of the Ford Building first in a list of priorities in May 1974.(64)

Also in 1974, the City Council tried to get \$2.6 million out of the balance of a 1966 voter-passed park bond issue to convert the Ford Building.(65) The City Attorney ruled against the request because Ford Building restoration was not included in the 1966 bond issue package.

On April 27, 1976, San Diego Port Commissioners rejected an attempt to relocate the Aerospace Museum to the B Street Pier.(66)

In August 1976, a nine-member Balboa Park Master Plan Review Committee recommended demolishing the Ford Building if commitments to refurbish it do not appear "within the next few months." (67)

In October, consultants Atkinson, Johnson and Spurrier, Inc. studied the feasibility of using the Ford Building as an aerospace museum.(68) This study cost the City \$9,000 with another \$1,000 for City Engineering Department review. Because the Ford Building had achieved architectural landmark status in the National Register of Historic Places, April 26, 1973, its appearance could no longer be drastically altered. There were, nonetheless, some alterations required, including removal of the roof screen atop the rotunda in favor of strengthening the walls, and removal of skylights in the main exhibit hall in favor of roof supports. The rotunda and inner circle were to be separated to conform to building code requirements and to speed rotunda conversion into an Aerospace Hall of Fame. Cost of structural rehabilitation would come to \$430,178.(69) The study did not go into the cost of making the building usable by the Aerospace Museum; however, Colonel Owen F. Clarke, the museum's director, estimated the expense would be around \$3 million.(70)

Still trying to help the Aerospace Museum obtain a new home, the City Manager submitted an application to the U.S. Commerce Department's Economic Development Administration for \$2,550,000 to improve the Ford Building in November 1976.(71) The Economic Development Administration did not include the project in its list of projects eligible for public work's grants published December 23, 1976.(72)

In September and October 1977, the Economic Development Administration agreed to give San Diego \$1.78 million for work on the California Building and Fine Arts Gallery, \$4.99 million to demolish and rebuild the Electric Building, and \$2.64 million to restore the Ford Building. In all, the City received over \$9 million from the federal government to reconstruct buildings in Balboa Park

A fire on the night of February 22, 1978, destroyed the Electric Building, valued by the City at \$275,000, and the Aerospace Museum collection of 55 aircraft and the International Aerospace Hall of Fame collection of memorabilia, valued by museum officials at \$4 million. Despite the loss of the collection, the renovation of the Ford Building and the rebuilding of the Electric Building went ahead. The Aerospace Museum

reopened in the Ford Building in December 1978 with a new collection that friends and officials of the museum had purchased from a \$4.5 million kitty they had raised for the purpose. So people would not go to the Ford Building looking for Ford automobiles, Aerospace Museum officials persuaded the City Council to change the designation of the building to "Aerospace Historical Center." (73)

The December 17, 1978 dedication program gave the cost of restoring the building as \$3,088,000. According to the *San Diego Evening Tribune*, the Aerospace Museum used \$250,000 of this money to restore the 450-ft, long March of Transportation mural.(74)

To architecture historians John Ely Burchard and Albert Bush-Brown, Walter Dorwin Teague's Ford Building in San Diego resembled the same man's Brownie camera, dynamos, and Texaco gas stations, (75) to writer Hildegard Hawthorne it was a gigantic white oil-tank with blue hoops; (76) to critic James Britton II it was a giant washing machine; (77) and to the Bartholomew planners it was a large doughnut.(78)

Richard Requa, supervising architect of the 1935 California-Pacific International Exposition, and Arnold C. Lehman, director of the 1930's exhibit, presented by the Dallas Museum of Fine Arts, thought the plain, contemporary, circular design of Teague's Ford Building departed from the rectangular shapes and eclectic Pueblo, Aztec and Maya motifs of other buildings around the Plaza de America.(79)

An article in the *American Architect*, July 1935, contrasted the romantic beauty of Bertram Goodhue's hallmark California Building with the blunt, austere appearance of the Ford Building.(80)

In 1966, architecture historian James Marston Fitch declared the simplified, curving style, popularized by Norman Bel Geddes and Walter Dorwin Teague in their designs for the 1939 New York World's Fair, was cold and impersonal and suggested the functional and fluid forms of an assembly line, a diesel locomotive, or a motorcar body.(81) Unlike industrial designers, Fitch was not enamored of the appurtenances of an industrialized civilization.

Neither David Gebhard and Robert Winters in *A Guide to the Architecture in Southern California*, published in 1965, nor the San Diego

branch of the American Institute of Architects in the *AIA Guide to San Diego*, published in 1972, mentioned the Ford Building. But this was before Robert Ferris had submitted his nomination to the National Register of Historic Places.

Aaron Gallup, staff historian of the California Department of Parks and Recreation, considered the Ford Building historically significant "as a remaining structure of the 1935 California-Pacific International Exposition," and architecturally important as "a statement of its time and a significant example of the futuristic 'Modern' styling of the 1930's." (82)

Charles A. Herrington, chief of the Review Unit of the National Register of Historic Places in Washington, D.C. thought: "The serious consideration by critics, whether favorable or not in the past, in itself indicates the significance of the [Ford Building] and in combination with its place as one of the few remaining twentieth century exposition buildings, makes it deserving of listing in the National Register and worthy of preservation." (83)

David Gebhard, an authority on the moderne architecture of Southern California, believed the Ford Building should be preserved because "it is the only remnant of Fair Buildings of the decade of the 1930's," and because "it represents a building type and style which as 'Fair' architecture no longer exists anywhere in the country." (84)

Amazingly, Gebhard did not seem to know of buildings from the 1936 Texas Centennial which still exist in Fair Park, Dallas. Historian David Dillon has described these buildings as "one of the finest collections of Art Deco buildings in the country, rivaled only by Miami's Art Deco Historical District, and the only major thirties exposition complex still intact." (85)

Taking a different tack from the writers just cited, architecture historian Dennis Sharp considered "Art Deco," or "Moderne" or "Jazz Age Modern" to be a superficial, decorative style consisting mainly of zigzag lines, rounded arches, curved corner details, 'ship-prow' embellishments, and materials with mirror-like surfaces. He added: "For most serious architects and critics of the 'thirties' it was considered 'not quite' architecture." (86)

The 20's discovered the zigzag or the lightning bolt and the 30's the oval or the teardrop. The use of one or the other of these shapes, along with

ornamental motifs taken from primitive cultures, distinguishes art deco or moderne from traditional Neo-Classical and Baroque designs and from the no-ornament International Style which became the dominant building type of the 20th century.(87)

Far from being rare, the Art Deco or Moderne style of smooth, sweeping lines, interpenetrating cylindrical volumes, and flat, repetitive, two-dimensional ornamentation, derived from the use of French curve and compass, (88) is prevalent in theaters, bowling alleys, and department stores throughout the United States.(89) Commenting on the widespread appearance of these buildings, Marcus Whiffen observed, "Today they are not so much disliked as simply disregarded. Tomorrow they will doubtless be found to have period charm. Some of them—though perhaps not many—must have more than that." (90)

The "tomorrow" Whiffen wrote about in 1970 has arrived. Historians and preservationists are looking at surviving Art Deco buildings everywhere and are trying to decide which buildings should escape the wrecker's ball. Art Deco was not Richard Requa's metier. Larrinaga, his designer, was capable of Art Deco effects, but his efforts were superficial. He went on to Dallas where he painted pictures and built models of Texas Centennial structures for publicity purposes.(91) Measured against the wealth of Art Deco in the United States, the work in Balboa Park is too meager and approximate to measure up. The Ford Building, the most like contemporary, functional buildings at the Texas Centennial, is the exception. Having the chaste lines, stripped-down surfaces, simple proportions, and dynamic expressiveness of a precision-made machine, this building exemplifies Louis Sullivan's famous dictum "Form ever follows function."

The Ford Building now houses an Aerospace Museum and an Aerospace Hall of Fame. In adapting the former Exposition building to new uses, the "sacrifices of ideal design" that Louis Cowles predicted have taken place, though champions of the new building would argue they were necessary and minimal. As the Greek philosopher Heraclitus pointed out, "You can't step into the same river twice." To say that the "historic fabric" should be preserved is like wanting the original 1935 Ford exhibit to be re-created, an idea that was discarded in 1936 when the building became the "Palace of Transportation," and has progressively receded ever since. In any case, the original structure is present despite changes to its furnishings. As the poet Charles Olson, himself a fervid historic preservationist, pointed out

“What does not change is the will to change.” Or as the novelist Thomas Wolfe said, “You can’t go home again.”

The Aerospace Museum covered the patio in 2000 with the concurrence of the National Park Service Historic Preservation Office. A Consolidated PBY-5A Catalina, a Mikoyan-Gurevich MIG-17, a McDonnell Douglas F-4S Phantom II, a Bell AH-1E Cobra, and a Ford 5-AT-B Trimotor, within the patio, renamed the Edwin D. McKeller Pavilion of Flight, overshadow the dramatic V-8 fountain. While changes to the patio may cause historic preservationists to wince, they were necessary because of the museum’s need for space and for revenue, which it can obtain by renting the patio to groups for meetings. The massive Convair YF-2Y-1 Seadart and the Lockheed A-12 Blackbird in front of the building are another matter as they conflict with the harmony of the Plaza de America and detract from the concave lines of the tower. Clutter on the inside of the museum is excusable; clutter on the outside is not.

To many lovers of aircraft—and in San Diego there is an unusually large number due to the former presence of aircraft industries (now moved elsewhere) and to present and former military aviation personnel—incongruities that occurred when the Ford Building was converted into an Aerospace Museum are not worth mentioning. The Museum deserves and A plus for its educational displays of aircraft, past and present, from a Wright 1903 Flyer to a Vought A-7B (Corsair II) and of rare aircraft from former enemies, such as a Messerschmitt B1-109G-14 from Germany, a Mitsubishi A6M7 (Zero) from Japan and Mikoyan-Gurevich MIG-15 (Fagot) from Russia. A highlight of the collection is the Apollo 9 module that came to the Museum in 2004 on a loan from the Smithsonian National Air and Space Museum. Visitors climb a ladder to look inside the spacecraft’s cockpit and see the restricted space that astronauts put up with in 1969. Fittingly the module is placed below Juan Larrinaga’s imaginative depiction of future space travel near the exit from the rotunda..

A number of interactive displays, that consist largely of games for children, have been introduced approximately mid-way through the orbit around the rotunda. These may seem out of place but they fit in because so many of the men and women who visit the Museum bring their children with them One can not ignore the crowded displays, even though the transition from one section to another follows a sequence that roughly parallels the Larrinaga mural on the upper inside wall. The mural itself has lost some of

its luster as its colors are so dim that the delineation of features is hard to see. (This may have been a little-mentioned defect of the original; however, old photographs contradict this assumption.) At any rate the presence of aircraft in upper and lower stages jostles the mural and obscures some of its sections. For its part the Museum has added so many informative charts murals and displays that the effect is like an over-crowded warehouse for discount shopping. Many of the aircraft present were restored or recreated in the basement of the building and were miraculously lifted into whatever small space could be found for them. To accommodate an overflow of restored large aircraft the Aerospace Museum opened an annex at Gillespie Field in El Cajon in 1993.

A recent visit to the Museum by this author left him in a state of delight. The enthusiasm of volunteers is infectious and the wonderment of man's ability to fly—which goes back to Leonardo da Vinci if not before—is compelling. (Did not the Egyptian sun god Ra sail across the sky in the Manjet Boat? Did not Icarus fly so close to the sun that his wings of wax melted and he plummeted to earth?) Man's fascination with flight springs from deep roots in the human psyche.

"High Flight"

**Oh! I have slipped the surly bonds of earth
And danced the skies on laughter-silvered wings;
Sunward I've climbed, and joined the tumbling mirth
Of sun-split clouds - and done a hundred things
You have not dreamed of - wheeled and soared and
swung
High in the sunlit silence. Hov'ring there,
I've chased the shouting wind along, and flung
My eager craft through footless halls of air.
Up, up the long, delirious, burning blue
I've topped the wind-swept heights with easy grace
Where never lark, or even eagle flew -
And, while with silent lifting mind I've trod
The high untrespassed sanctity of space,
Put out my hand and touched the face of God.**

John Gillespie Magee, Jr.

To expect the Ford Building to look like the efficient machine it was in 1935 is as foolhardy as expecting to recover Walter Dorwin Teague's confidence that technology would overcome all obstacles and bring in utopia.(92) Yet, how nice it would be to keep the Ford Building around to remind us of that possibility.(93)

NOTES

1. W. Hawkins Ferry, *The Legacy of Albert Kahn* (Detroit, 1970), 21; Judith Dressel, "Edsel Ford, Modernist," *The Modern Spring*. 2000, V. 14, No. 1, Detroit Art Deco Society.
2. *San Diego Union*, January 26, 1935, 1.
3. Richard Requa, *Inside Lights on the Building of San Diego's Exposition, 1935* (San Diego, 1937), 56.
4. *San Diego Union*, August 31, 1973, B-1.
5. Harland Bartholomew and Associates, *Master Plan for Balboa Park, San Diego*, June 1960, 55.
6. Information supplied to author by Louis Bodmer in 1977.
7. *San Diego Union*, February 12, 1935, 1.
8. *San Diego Union*, October 12, 1971, B-1.
9. *San Diego Union*, January 26, 1935, 1.
10. *San Diego Evening Tribune*, August 24, 1973, A-7.
11. *San Diego Union*, May 31, 1935, 3.
12. Ed Austin, "Night --- A Land of Magic," *San Diego Farm Bureau Monthly*, May 1936, A-12.
13. Walter Dorwin Teague, *Design this Day* (London, 1946), 61, 181; Jacqueline Abbott Keyes, "The Fair --- demonstration of modern methods of living," *Art and Industry*, December 1936, 233-237.
14. Harold Van Doren, *Industrial Design* (New York, 1954), 185-186; Donald J. Bush, *The Streamlined Decade* (New York, 1975).
15. Teague. *Design this Day*, 105, 122.
16. Walter Dorwin Teague, "Building the World of Tomorrow --- The New York World's Fair," *Art and Industry*, April 1939, 125-141. ... Teague designed the Exhibit Hall for Texaco at the Texas Centennial in 1936. He was on the Board of Directors for the New York World's Fair in 1939. Albert Kahn designed the Ford Exposition Building and a half-mile "Road of Tomorrow" that wound round the building and Teague designed the interior presentations. He also designed the City of Lights Day and Night diorama for the Consolidated Edison Building, the United States Steel Building, a hemisphere that was supported by ribs on the outside, and the National Cash Register Building, a gigantic cash register that instead of ringing up receipts recorded in 10-minute intervals the number of visitors at the Fair. The author has found no record of his having designed

- buildings for the Golden Gate International Exposition in 1939, though, of course, the many appliances he designed were on display in the New York City and San Francisco Fairs.
17. *Descriptive Guidebook of the California-Pacific International Exposition at San Diego, California, 1935*, 51-58; *Official Guide --- Souvenir Program and Picture Book of the California-Pacific International Exposition, San Diego, 1935*, 46-47.
 18. Kenneth Reid, "Walter Dorwin Teague, Master of Design," *Pencil Points*, September 1937, 539-570.
 19. "The Schoolmaster of Dearborn," *New Outlook*, September 1934, 56. 61-63, 69.
 20. Reid, Photograph of revolving hemisphere in rotunda of Ford Building, San Diego, 551.
 21. Walter Dorwin Teague, "The Cash Value of Design," *Arts and Decoration*, January 1936; Photograph of doorway looking through the entrance rotunda to patio of Ford Building, 34; *San Diego Union*, May 24, 1936, 4.
 22. *San Diego Union*, May 29, 1935, 1.
 23. *San Diego Union*, May 29, 1935, 1.
 24. Requa, 139.
 25. *San Diego Union*, May 29, 1935, 5.
 26. Teague, *Design this Day*, plate 112.
 27. Walter Dorwin Teague, "Art of the Machine Age," *Industrial Education*, November 1936, 225-229.
 28. Teague, *Design this Day*, 231, quoted by Mary Seelhorst in "PM: Walter Dorwin Teague," *Popular Mechanics*, October 14, 2003.
 29. *San Diego Union*, December 10, 1935, 1.
 30. *San Diego Union*, January 12, 1936, 1.
 31. *San Diego Union*, March 13, 1936, 1.
 32. *San Diego Union*, March 13, 1936, 1.
 33. "Ford at the California-Pacific International Exposition, San Diego, 1935," *Souvenir Program*, compliments of the Ford Company at Dearborn, Michigan, San Diego Public Library, California Room.
 34. *San Diego Union*, March 29, 1936, III, 1.
 35. *Official Guide and Souvenir Program*, 36.
 36. *San Diego Union*, March 29, 1936, III, 1.
 37. "Directory of Exhibits Shown in Model Salon in March of Transportation Building, 1936," Folder, California-Pacific International Exposition, San Diego Public Library, California Room.
 38. Richard Pourade, *The Rising Tide* (San Diego, 1967), 224.
 39. Letter, Louis Cowles to Board of Park Commissioners, July 21, 1936 Doc. 298737, San Diego City Clerk's Office.
 40. *Assembly Facilities for San Diego* (Stanford, 1955), 54-57; *Balboa Park Citizens' Study Committee, Final Report, May 27, 1957*; *San Diego Union*, October 16, 1959, A-11.
 41. City Council Resolution 39413, Doc. 386861, San Diego City Clerk's Office.
 42. City Council Resolution 71570, Doc. 320946, San Diego City Clerk's Office.
 43. City Council Resolution 90022, Doc. 388866, San Diego City Clerk's Office.
 44. Florence Christman, *The Romance of Balboa Park* (San Diego, 1985), 94.

45. *Balboa Park Citizens' Study*, 1957, 45.
46. *San Diego Union*, May 28, 1957, A-23.
47. *Balboa Park Citizens' Study*, 1957, 30-35.
48. *San Diego Union*, December 4, 1959, A-21; James Britton, "The Center for Potentially the Finest Convention Center in America," *San Diego Magazine*, February 1959, 40-41.
49. Information supplied to author by C. J. Paderewski in 1977.
50. *San Diego Union*, October 16, 1959, A-22.
51. *Balboa Park Citizens' Study*, 1957, 38.
52. Harland Bartholomew and Associates, *Master Plan for Balboa Park*, San Diego, June 1960, 55.
53. Bartholomew, *Master Plan for Balboa Park*, 55.
54. *San Diego Union*, March 3, 1961, B-1.,
55. Information supplied by C. J. Paderewski.
56. George B. Welsh, *San Diego Aerospace Museum: The Collection* (San Diego Aerospace Museum, 1991), 7.
57. Paderewski, Dean and Associates, *A Museum Exhibit Facility, Rehabilitation of the Ford Building, Balboa Park, San Diego*, March 16, 1970; *San Diego Evening Tribune*, August 24, 1973, A-7; Christman, 121.
58. Christman, 110.
59. *San Diego Union*, June 20, 1970, B-1.
60. Information supplied by the City of San Diego Audit Department.
61. *San Diego Union*, November 3, 1971, A-1; November 9, 1972, B-1.
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63. *San Diego Union*, January 9, 1973, B-1.
64. *San Diego Evening Tribune*, May 14, 1974, B-1.
65. *San Diego Union*, April 14, 1974, B-3.
66. *San Diego Union*, April 28, 1976, B-1.
67. *San Diego Union*, August 8, 1976, B-8.
68. *San Diego Union*, October 21, 1976, B-1.
69. Atkinson, Johnson and Spurrier, Inc., *Ford Building, Structural Survey and Study*, June 4, 1976.
70. *San Diego Union*, April 28, 1976, B-1.
71. *San Diego Union*, October 30, 1976, B-4.
72. *San Diego Evening Tribune*, December 24, 1976, A-1.
73. Welsh, 8.
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77. James Britton, "How Good is the Bartholomew Report?" *San Diego Magazine*, November 1959, 111.
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80. "San Diego After Twenty Years . . . a study in contrasts," *American Architect*, July 1935, 9.
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83. Letter, Charles A. Herrington to Richard W. Amero, October 3, 1973.
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86. Dennis Sharp, *A Visual History of 20th Century Architecture* (New York, 1972), 110.
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88. David Gebhard and Harriette Von Breton, *Kem Weber, The Moderne in Southern California, 1920-1941* (Santa Barbara, 1969), 27.
89. David Gebhard and Harriette Von Breton, *L. A. in the Thirties, 1931-1941* (Peregrine Smith, 1975).
90. Marcus Whiffen, *American Architecture Since 1780* (Cambridge, 1970), 240.
91. David Dillon, *Dallas Architecture*; Alastair Duncan, *American Art Deco* (New York, 1986) 262. . . . These and other writers, who have described the architecture of the Texas Centennial, do not include Juan Larrinaga among the Fair's architects and designers. A file on Larrinaga kept by the Dallas Historical Society describes his work as that of a "colorist and delineator for the Exposition." He painted pictures and built models of the Fair's structures that were used in publicity and promotional releases. While his skills as a renderer were appreciated, he did not personally design or decorate buildings.
92. Walter Dorwin Teague, "Planning the World of Tomorrow," *Popular Mechanics*, December 1940, 808-810.
93. Seelhorst, Mary. "PM People: Walter Dorwin Teague," *Popular Mechanics*, October 14, 2003. . . . The firm Walter Dorwin Teague (1883-1960) founded in 1926, Walter Dorwin Teague Associates, still exists. It has had a long association with Boeing Aircraft, beginning in 1946, and has helped design the 707, 747, 777 and 787. Other clients include Hewlett-Packard and Microsoft.