

Landmarks Preservation Commission
May 16, 1995, Designation List 263
LP-1925

THE UNISPHERE with its surrounding pool and fountains, Flushing Meadows - Corona Park, Borough of Queens. Constructed 1963-1964; Gilmore D. Clarke, Landscape Architect; United States Steel Company, Engineering and Fabrication.

Landmark Site: Queens Tax Map Block 2018, Lot 1 in part, consisting of the land bounded by a line extending around the inner edge of the walkway encircling the described improvements.

On February 14, 1995, the Landmarks Preservation Commission held a public hearing on the proposed designation of the Unisphere with its surrounding pool and fountains and the proposed designation of the related Landmark Site. The hearing had been duly advertised in accordance with the provisions of law. Six witnesses spoke in favor of designation. There were no speakers in opposition to designation. The Parks Department has expressed its support for the designation.

DESCRIPTION AND ANALYSIS

Summary

The Unisphere, located in Flushing Meadows-Corona Park, was the centerpiece and visual logo of the 1964-65 New York World's Fair, symbolizing the theme of "Peace Through Understanding." It was designed by the noted landscape architect Gilmore D. Clarke, who had devised the geometric, Beaux Arts-inspired layout of Flushing Meadows Park which formed the basis of the plan for this World's Fair as well as the earlier 1939-40 World's Fair. The Unisphere, which was commissioned to celebrate the dawn of the space age, was constructed and donated to the park by the United States Steel Corporation after successfully meeting several engineering challenges.

Robert Moses had hired Gilmore D. Clarke to lay out the plan of the 1939-40 World's Fair -- a series of major and minor boulevards and paths radiating out from a central point containing the Trylon and Perisphere, with major axes terminating at focal points that contained major pavilions, fountains, and sculpture. In 1961, Clarke returned to modify the 1939 plan for the 1964-65 fair, placing the Unisphere at the same prominent position as the earlier Trylon and Perisphere. The Unisphere remains at this location.

The 140-foot-high stainless steel Unisphere towers over a circular reflecting pool containing fountains that spray water twenty feet in the air. The sphere is covered with representations of the continents, showing the major mountain ranges in relief, and is encircled by three giant rings denoting the first manmade satellites, which had been launched in the late 1950s. The capital cities of the world are marked by lenses which, during the fair, were backed by flashing lights. In late 1993 and early 1994, the Parks Department restored the Unisphere, including the reflecting pool and its fountains, and new floodlighting was installed. The sphere itself was cleaned and stabilized, and the surrounding landscape was rehabilitated as part of a 3.6 million dollar restoration project at the park. The Unisphere remains one of the most prominent structural and landscape features of Flushing Meadows-Corona Park, as well as a striking visual reminder of the second of New York City's great World's Fairs.

The Flushing Meadows-Corona Park¹

The 1,255 acre Flushing Meadows - Corona Park was originally a vast swamp with a freshwater creek running through it. The first Europeans to occupy the area in the seventeenth century, attracted by its fertile ground and rich salt marshes, used the navigable Flushing Creek to transport their goods to the markets of New York.

Despite the development of the surrounding area as a suburb of New York City, the Flushing Meadows themselves remained unspoiled at the turn of the twentieth century. In 1907, developer Michael Degnon, who was building a huge industrial park in Long Island City, devised an ambitious plan to construct another large industrial park in the Flushing Meadows and to create a great port along Flushing Bay and Flushing Creek. He began purchasing the land and contracted with the New York City Department of Sanitation and the Brooklyn Rapid Transit Company for the removal of ashes, street sweepings, and excavated material to the site, which soon became known as the Corona Dump. In 1913, the State of New York authorized the dredging of Flushing Creek and Flushing Bay; soil from the dredging was also used as fill for the site. By 1916, 600 acres had been filled in. However, Degnon's plans for the Flushing Meadows were halted with the United States' entry into World War I. After the war, the impetus for the industrial development of Flushing Meadows had been lost, but the area continued to be used as a dump.

Fiorello H. LaGuardia became the ninety-ninth mayor of the City of New York in January 1934 amid the Great Depression. He chose the popular New York State Park Commissioner, Robert Moses, as his new city Park Commissioner. Moses had a reputation as a progressive and as the builder of great parks and parkways, such as Jones Beach and the Northern State Parkway on Long Island. Moses accepted the position of Park Commissioner on the condition that the existing five independent Park Departments, one for each borough, be consolidated into one department with himself as the sole Commissioner. A combination of several City and State appointments gave Moses control over all existing and proposed parks and parkways in the New York metropolitan region, with the exception of areas outside of New York State.² Among Moses's many accomplishments in New York City during the 1930s were enormous new waterfront recreational facilities at Orchard Beach in the Bronx and Rockaway Park in Queens, as well as several new swimming pool complexes scattered throughout the city and the construction or renovation of hundreds of parks and playgrounds.³

Since the 1920s, when he was a member of the Metropolitan Park Conference, Moses had envisioned the Flushing Meadows as the site of a grand park to be part of a vast new greenbelt stretching across Queens

into Nassau County. While his appointment as the City's Park Commissioner brought him closer to fulfilling this dream, the cost of land acquisition and improvements was beyond the means of the Depression-plagued City. When George McAneny, the chairman of the board of the Title Guarantee and Trust Bank and the president of the City Club, presented the concept of an international fair, Moses immediately recommended the "Corona Dump" as an appropriate site. Moses saw a World's Fair as the opportunity to fund the creation of the new park and greenbelt. The City would acquire the land and lease it to the Fair Corporation, which would then raise the funds needed to convert the dump and the surrounding swamp into an appropriate site for the fair through the sale of bonds. At the conclusion of the fair, the City would take back the improved site, which would serve as the foundation for the new park. In addition, a certain percentage of the fair's profits would be dedicated to the building of the park.

By the end of 1935, the Corporation was formed and the Flushing site was officially chosen. The City of New York purchased the land and installed the infrastructure needed to support both the temporary fair and the future park. The irregular terrain was leveled and graded, thousands of trees were planted, and utility lines were installed. A complicated new drainage system for the Flushing area placed a branch of the Flushing Creek into an enormous conduit and formed two lakes in the park.⁴ Gilmore D. Clarke, one of the foremost landscape architects of the day, created the landscape design of the 1939-40 New York World's Fair.

Gilmore D. Clarke, Landscape Architect⁵

Gilmore D. Clarke (1892-1982) was born in New York City and studied landscape architecture and civil engineering at Cornell University, from which he received a Bachelor of Science degree in 1913. He served as an engineer in the army during World War I. During the 1920s, he served on several local, state, and federal commissions as landscape architect, including the Architectural Advisory Board for the United States Capitol, the New York State Council of Parks (which was headed by Robert Moses), and the Westchester County Park Commission, among many others. For his work in Westchester County, which included the Rye Beach Playland, the Saw Mill River Parkway, and the Bronx River Parkway, Clarke was awarded the Gold Medal of Honor in Landscape Architecture from the Architectural League of New York in 1931. By the time of the Great Depression, Clarke was the most popular landscape architect in public works in America.

His career advanced during the 1930s. Robert Moses hired him in 1934 as the Consulting Landscape Architect to the New York City Park Department, and in 1935 he became a member of the Board of Design for the 1939 New York World's Fair. He was also a member of the National Commission on Fine Arts and

the New York State Planning Council. His projects for the New York City Park Department included the Central Park Zoo, the Henry Hudson Parkway, Astoria Park in Queens, and Orchard Beach in the Bronx, as well as renovations to Bryant and City Hall Parks. He taught landscape architecture at Cornell University from 1935 to 1950, serving as the Dean of Architecture from 1939 until his retirement in 1950, and wrote several articles for trade periodicals. In 1935, Clarke joined Michael Rapuano, an engineer and landscape architect, establishing the New York civil engineering and landscape architectural firm Clarke & Rapuano, Inc. Clarke was president of the firm from 1962 to 1972, when he retired. Later in his career, Clarke worked as a consultant on the construction of the United Nations Headquarters in New York and became a trustee for the American Museum of Natural History. Besides Clarke's own modifications of the fairgrounds for the 1964-65 World's Fair and his design of the Unisphere, the firm Clarke & Rapuano designed many of the fair's statues, pools, and fountains, and one exhibit, the Garden of Meditation.

The 1939-40 and 1964-65 World's Fairs⁶

Clarke's geometric Beaux-Arts plan for the fair's northern section is composed of several major and minor boulevards and paths radiating out from a central point with major axes terminating at focal points containing major pavilions, fountains, and sculpture. This central point was the location of the Trylon and Perisphere and is now the location of the Unisphere. This formal plan was contrasted with the more naturalistic southern section, which has two artificial lakes and randomly arranged paths. The northern section was intentionally made very level to permit the fair's temporary architecture to dominate the landscape.

The theme of the fair was "Building the World of Tomorrow." The fair's president, Grover A. Whalen,⁷ was able to attract an impressive roster of foreign exhibitors to the fair in a period of financial stress and gathering war clouds, as well as persuading the Bureau International des Expositions in Paris to bestow its official endorsement upon the New York fair, giving it additional prestige.⁸

Although the fair received generally good reviews, attendance fell short of expectations, and the New York World's Fair Corporation was forced to declare bankruptcy at the end of its second and final season in 1940. The fair grossed only 48 million dollars for the Corporation, while its expenses exceeded 67 million dollars. Although the funds Moses was counting upon to create his new park did not materialize, the partially landscaped site left behind by the fair was adequate to support a scaled-down Flushing Meadows Park, which opened in 1941.⁹

In 1959, planning began on the second of New York City's great fairs, which would be held for two

years beginning in 1964, the twenty-fifth anniversary of the opening of the 1939 fair, and which was to occupy the same Flushing Meadows site as the earlier fair. By this time, Moses' reputation was on the wane,¹⁰ but he was again appointed president of the Fair Corporation. Once again, his motive was to extract enough profit from the fair to finally construct the park that he hoped would be the crowning glory of his long career.¹¹ Gilmore D. Clark was retained to adapt the 1939 landscape plan to the new fair. The second fair was to be mainly a forum for the exhibition of developing technology, particularly as it related to space exploration, computers, and nuclear energy.¹² In 1961, the New York World's Fair 1964-1965 Corporation announced that the theme of the fair, "Peace through understanding in a shrinking globe and in an expanding universe," would be symbolized by a large, stainless steel armillary sphere, to be called the Unisphere.¹³ This would be built on the site of the Trylon and Perisphere from the 1939-40 Fair.

The Design and Construction of the Unisphere and its Site¹⁴

Designed by Gilmore D. Clarke, the Unisphere was engineered, fabricated, and donated to the fair by the United States Steel Corporation (USS). Its components were manufactured by the company's American Bridge Division at Ambridge and Harrisburg, Pa., and assembled at the World's Fair site. The original published rendering of the Unisphere closely resembles the structure as eventually built, except for a different arrangement of fountains.¹⁵ The pool and the fountains were designed by Gilmore D. Clarke's landscape architecture firm, Clarke & Rapuano, with J. Samuel Hamel of the engineering firm Hamel & Langer serving as a consultant. Both firms worked together to produce many of the fair's other pools and fountains.

Clarke's design for the Unisphere -- a steel cage composed mainly of curving structural members, which represent the lines of latitude and longitude supporting representations of the continents and three suspended orbital rings -- presented several engineering challenges. As an open structure, virtually every part is visible and exposed to the moisture, salt air, and high winds of the local climate. The USS engineers chose stainless steel as the Unisphere's major element because of its weatherproof qualities and resistance to corrosion. They studied different surface textures for the land masses to determine which would look best at various viewing distances.¹⁶ After testing various materials including stainless steel mesh, non-directional textured stainless steel sheeting was chosen for the land masses. To show elevation, the sheeting was built up in contours.

Despite the enormous loads that the Unisphere's shape imposes on its curving structural members, these could not be too thick, cross-braced, or irregularly spaced without compromising Clarke's proposal to

feature accurate representations of the earth's meridians and parallels. In addition, the concave inner surfaces of the land masses trap the wind and create an enormous amount of drag on the structure. The distribution of its weight and the effects of the wind had to be considered and a stress transfer pattern created to insure that the Unisphere would retain strength and stability at all times. By varying the sectional dimensions of the meridians and parallels, the engineers were able to achieve structural stability without compromising the design.¹⁷ The three polished steel orbit rings are anchored to the superstructure by aircraft cable. Altogether, the Unisphere contains a mile and a half of meridians, parallels, and orbit rings. The 700,000 pound globe is supported by an inverted tripod base made out of a low-alloy, high strength steel and weighing 200,000 pounds, anchored to the foundation by steel bolts having a minimum yield strength of 100,000 pounds per square inch. The poured concrete foundation incorporates the Perisphere's piling ring, which remained intact underground from the 1939-40 World's Fair. It was reinforced with 600 additional 100-foot piles.

The Unisphere as the Logo of the 1964-1965 New York World's Fair¹⁸

As the fair's centerpiece, the Unisphere played an important role in the marketing of the fair. Images of the Unisphere were featured prominently in most of the Corporation's advertising for the fair, as well as on official World's Fair souvenirs, such as mugs, pencil sharpeners, scale models, and bumper stickers. World's Fair telegrams, featuring an image of the Unisphere, could be sent anywhere in the United States for a discount price of one dollar, provided they included one of eleven pre-written texts extolling the wonders of the fair. Many companies with exhibits, concessions, or booths at the fair, incorporated the Unisphere into their printed and filmed advertisements.

The Unisphere's image and the word "Unisphere" were both registered as official trademarks of the Fair Corporation, and the legal trademark symbol had to appear in the immediate vicinity of any pictorial representation of the structure, and immediately following any use of the word "Unisphere." In addition, the Corporation copyrighted a simplified representation of the Unisphere on an orange and blue background as its official logo.¹⁹

Description

The 140-foot-high, 700,000-pound stainless steel globe, which is 120 feet in diameter, sits upon a twenty-foot high base and contains more than 500 major structural pieces. It is covered with representations of the continents, showing the major mountain ranges in relief, and is encircled by three giant rings denoting the first manmade satellites, which had been launched in the

late 1950s. The globe tilts from the vertical at an angle of 23-1/2 degrees, the normal tilt of the earth. The circles which make up the armillary sphere¹ represent the lines of latitude and longitude. The capital cities of the world are marked by lenses which, during the fair, were backed by flashing lights.

The Unisphere sits in a circular reflecting pool 310 feet in diameter and is encircled by a double ring of fountains. The floor of the pool is of poured concrete, and incorporates drains, piping, and the fountain casings. Altogether there are ninety-six fountainheads, arranged in pairs. They spray vertically to a height of twenty feet. The pool's bulkhead is made of cast concrete sheathed in rose-colored granite. An aluminum plaque faces each of the park's four major walkways, which converge at the Unisphere. These plaques, which were donated by U.S. Steel, contain descriptive information about the structure. The Unisphere is floodlit at night from towers located just beyond the edges of the walkway that encircles the reflecting pool.

The Unisphere after the 1964-65 World's Fair

Attendance in the two seasons of the fair was well below expectations. At its conclusion, the fair had 11.6 million dollars on hand, and owed 23 million dollars. Most of the 11.6 million dollars was used to demolish the pavilions of bankrupt exhibitors, clean up the fair site, and help restore Flushing Meadows Park in an adaptation of Clarke's Beaux-Arts design. For the last time, Moses' dream of a creating a great new city park had eluded him.

When the restored Flushing Meadows-Corona Park reopened to the public in 1967, the Unisphere remained as a permanent element of the park.²⁰ Its visual prominence, especially to motorists traveling along the major expressways that ring the fairgrounds, makes it a major Queens landmark. However, the lack of maintenance over time began to take its toll on the structure and its site. By the 1970s, the fountains were shut down; the pool floor and bulkhead were graffitied; and the Unisphere itself was covered with grime.

In 1989, the respective fiftieth and twenty-fifth anniversaries of the openings of the two New York World's Fairs, the Parks Department began a 3.6 million dollar rehabilitation project in Flushing Meadows-Corona Park. Among the projects were the restoration of the Unisphere and its pool and fountains. Structural repairs to the sphere included replacement of the inner and outer cables and all loose rivets, and tightening and/or replacing all nuts and bolts. The globe

¹Armillary derives from the Latin *armilla* meaning armlets or bracelets. Astronomically, an armillary sphere is an arrangement of rings, all circles of a single sphere, showing relative positions.

was cleaned with a special solution and water under high pressure. The original 96 spray jets in the fountain at the base of the Unisphere were restored and two new 200 horsepower pumps and a timer were installed. The work, which was funded by the office of the Queens Borough President, was finished and the fountains were restarted on May 31, 1994.²¹ The Unisphere remains

one of the most prominent structural and landscape features of Flushing Meadows-Corona Park, as well as a striking visual reminder of the second of New York City's great World's Fairs.

Report prepared by Donald Presa,
Research Department

NOTES

1. Information in this section is based upon the following sources: Robert Caro, *The Power Broker* (New York: Alfred A. Knopf, 1974); Historical Perspectives, Inc., *Phase 1A Archaeological Impact Assessment for the Sportsplex Project*, August 1985; Queens Museum, *Dawn of a New Day, The New York World's Fair, 1939/40*, exhibition catalogue, 1980; The Queens Museum, *Remembering the Future, The New York World's Fair from 1939 to 1964*, exhibition catalogue, 1989; and *The WPA Guide to New York City* (1939; Pantheon reprint, 1982).
2. In addition to being the New York City Parks Commissioner, Moses also headed the Triborough Bridge and Marine Parkway Authorities at the city level and the Long Island State Park Commission, the New York State Council of Parks, and the Jones Beach State Park and Bethpage State Park Authorities at the state level.
3. Most of these early projects were funded by the federal Works Progress Administration (WPA), one of the centerpiece programs of President Franklin D. Roosevelt's "New Deal." New York City was the largest single recipient of Federal largess during the course of the New Deal. It has been estimated that the City received one-seventh of the total national outlay. See Cleveland Rodgers, *Robert Moses; Builder For Democracy*, 1st ed. (New York: Henry Holt and Co., 1952), 84-85.
4. As part of the overall development plan, the Interborough and Grand Central Parkways, the Whitestone Bridge, and the Whitestone Expressway were completed and the IND subway was extended to the fairgrounds. The total investment in the fair was 160 million dollars, including 59 million dollars for preparing the site.
5. [Clarke, Gilmore D., obituary]. *New York Times*, Aug. 10, 1982, p. B19; "Gilmore D. Clarke, Landscape Architect," reprinted from *Architecture and Design*, July 1940; *Who's Who in America*, 31 (Chicago: Marquis Publications, 1961), 547.
6. Information in this section and the following section is based upon the following sources: Allee King Rosen and Fleming Inc. and Vollmer Associates, "U.S. Tennis Association's National Tennis Center Project, Flushing Meadows - Corona Park, Queens, Environmental Impact Statement," 1993, pp. II.C-1 to II.C-3; Caro, 347-369, 372-373, 1082-1116; Rodgers, 110-117; Laura Rosen, "Robert Moses and New York: The Early Years," *The Livable City* 12/2 (December 1988), 2-4; Robert Stern et al, *New York, 1930* (New York: Rizzoli, 1987) 727-755; "New York Fair Opens: Drizzles, Fizzles, and Drama by Night," *Architectural Forum* 120 (May 1964), 12-15; and Richard Wurts, *The New York World's Fair, 1939-1940* (New York: Dover, 1977), iv-xviii.
7. Whalen, an internationally-known businessman and the Chairman of the Board of the Schenley Products Company, had served as the New York City Police Commissioner in the late 1920s and had been in charge of the National Recovery Administration in the New York metropolitan area early in the New Deal.
8. The 1939-40 New York World's Fair was more comprehensive and extensive than any previous international fair. Altogether, a record 60 nations and international organizations, as well as 33 U.S. states, took part in the fair. Some of the foremost architects and industrial designers of the day, such as Norman Bel Geddes, Raymond Loewy, Henry Dreyfuss, Salvador Dali, Walter Dorwin Teague, Ely Jaques Kahn, Dwight James Baum, William Lescaze, Morris Lapidus, Alvar Aalto, Oscar Niemeyer, and James Gamble Rogers, designed the fair's buildings and exhibits. In keeping with the fair's theme of "Building the World of Tomorrow," the Board of Design of the Fair encouraged the designers to be bold, imaginative, and futuristic. Replicas of historical buildings and traditional structures were generally not allowed. There were, however, regulations concerning color, lighting, signage, and landscaping, in order to give the fair some degree of cohesiveness.
9. Two buildings intended as permanent features were retained: Aymar Embury II's New York City Pavilion and Sloane & Robertson's New York State Marine Amphitheater. Between 1946 and 1951, the former New York City Pavilion was used as the annual meeting place of the United Nations General Assembly, and Moses offered the park

as the permanent site of the UN. It was rejected, and the UN headquarters was built instead at its present site on Manhattan's East Side.

10. Following the Second World War, Moses' unpopular activities in highway building and public housing programs began to tarnish his reputation. For a discussion of the circumstances surrounding the decline of Moses' reputation and power, see Caro, Sec. VII, "The Loss of Power." He remained Park Commissioner until 1960.
11. Moses attempted to structure the fair's finances to guarantee a profit for the Corporation by charging the exhibitors high fees for everything from the leases on their sites to the collection of garbage, and by building as little as possible with the Corporation's own funds. When the original design committee recommended that the Fair Corporation erect an enormous and expensive U-shaped exhibition hall to house much of the fair, Moses dismissed the members, insisting that the 1939 plan be recycled with only minor modifications. While the 1939 Fair Corporation itself had funded the construction of many of the pavilions, the 1964-1965 Corporation would build only three, and these to the cheapest possible specifications. See Caro, 1092.
12. Unlike the first fair however, the 1964-65 World's Fair was unable to gain the endorsement of the Bureau International des Expositions, which resulted in a limited number of government-sponsored pavilions at the fair. Private promoters had to build most of the international pavilions. Nevertheless, major corporations such as General Motors, Coca-Cola, and Kodak did participate. The roster of architects who designed buildings and exhibits included Skidmore, Owings & Merrill; Edward Durrell Stone; Emery Roth & Sons; Eero Saarinen & Associates; Philip Johnson Associates; and R. Buckminster Fuller. Unlike the earlier fair, very few guidelines governed the design of the 200 or so buildings, and the fair lacked the sense of cohesion that characterized the earlier event. Still, the juxtaposition of different sizes, shapes and colors was generally considered vivid, exciting, and impressive.
13. The Unisphere's design and Moses' decision to reuse the 1939 plan, after he fired the fair's first Board of Design for suggesting a completely new and very costly layout, were heavily criticized by contemporary architectural critics as being unimaginative and trite.
14. Information in this section is based upon the following sources: "[New York World's Fair] The Biggest Building Story Ever Told," *American Builder* 86 (May 1964), 71-71; "The Theme and Symbol of the Fair: The 140-Foot-High Unisphere," *New York Post*, Nov. 18, 1963; "U.S. Steel Donates Unisphere as Fair's Symbol," *New York Herald Tribune*, June 27, 1961, p.SS1; and United States Steel Corp., "Building a Unisphere," undated pamphlet, c.1963. For contemporary criticism of the Fair, see "Fair is So Far Foul," *Industrial Design* 8 (March 1961), 27; "New York World's Fair Opens: Drizzles, Fizzles, and Drama by Night," *Architectural Forum* 120 (May 1964), 12-15; "Plus Ca Change....," *Progressive Architecture* 42 (March 1961), 64; "Preview: New York World's Fair 1964-1965," *Architectural Record* 135 (February 1964), 137-144; Michel Santiago, "New York World's Fair," *Architectural Review* 134 (December 1963), 386, 433-435; and Mildred F. Schmertz, "Architecture at the New York World's Fair," *Architectural Record* 136 (July 1964), 143-150.
15. A rendering of the Unisphere from 1961 depicts a series of fountains encircling the globe and spraying toward and obscuring the base. As built, the fountains sprayed vertically. In addition, the accompanying article describes the proposed pool as being twelve-sided, with sculptured zodiac symbols marking each of the twelve corners. In its final form, the pool was circular. *New York Herald Tribune*, June 27, 1961, p. SS1.
16. From the edge of the reflecting pool, the Unisphere appears as the earth would look from 6,000 miles in space. Viewed from an aircraft 4,000 feet above it, the Unisphere appears to be about the same as if the earth were viewed from the moon.
17. The meridians, which are hollow rectangular sections, are six inches wide and twelve inches deep above the equator; below the equator, they are ten inches wide and fourteen inches deep. The parallels consist of steel tubing, the diameters of which diminish from 10-3/4 inches below the equator to six inches near the North Pole. The equator is an H-section pre-stressed by 15/16-inch stainless steel guys connected to a floating tension ring at the center of the Unisphere. In the Northern Hemisphere, the parallels and the meridians are attached with stainless steel bolts through welded cap plates. These connections in the Southern Hemisphere are welded. To counter the effect of wind drag, the continents are mounted on a framework of channels and angles to permit the structure to withstand wind speeds in excess of 110 miles-per-hour. In addition, construction of the Unisphere at the World's Fair site required creative techniques for handling and assembly. Fitting the land masses with their irregular coastlines and contour lines to the curvature of the sphere was a complicated task because no section was square in plane. These pieces were raised into place by an unusual lift made from a thirty-foot piling section, with angles, clamps and a rolling hitch. To position the orbital rings, each one was welded together on the ground encircling the sphere, then lifted in one piece by four cranes that held it in place while the anchoring cables were installed.

18. New York World's Fair 1964-1965 Corporation, *Graphic Standards Manual* (New York: New York World's Fair 1964-1965 Corp., 1964); Time-Life Books, *1964/1965 Official Guide: New York World's Fair* (New York: Time, 1964); and Time-Life Books, *1965 Official Guide: New York World's Fair* (New York: Time, 1965).
19. Any reproduced image of the Unisphere or of the Unisphere logo had to be approved in writing by the Fair Corporation, and had to include the legal copyright symbol followed by the phrases "Unisphere presented by USS United States Steel" and "1961 New York World's Fair 1964-1965 Corporation." Advertisers were required to submit proofs of each reproduced symbol, map, or other material to the Fair Corporation for its approval. Advertisers generally included some positive references to the World's Fair in the copy that accompanied the use of the Unisphere's image.
20. Harrison and Abramovitz's Hall of Science was also preserved, as was Philip Johnson's New York State Pavilion, which was actually built as a temporary structure, but was kept because it was too expensive to demolish. In addition, the Federal Pavilion was initially retained, but a new use for it could not be found, and the building gradually deteriorated. It was demolished in 1977. Clarke's original 1939 layout with the 1964 modifications survives largely intact, except for changes made in 1967 for the Queens Zoo and in 1978 for the United States Tennis Association (USTA) center. A further expansion of the USTA facilities into the Federal Circle section of the park is planned, which will obliterate the World's Fair plan.
21. Letter from Estelle Cooper, Administrator, Flushing Meadows Corona Park, City of New York Department of Parks and Recreation, March 10, 1995. For an account of the Unisphere's rededication, see Vivian Huang, "Let Us Spray for Unisphere," *New York Daily News*, June 1, 1994, p. CN1.

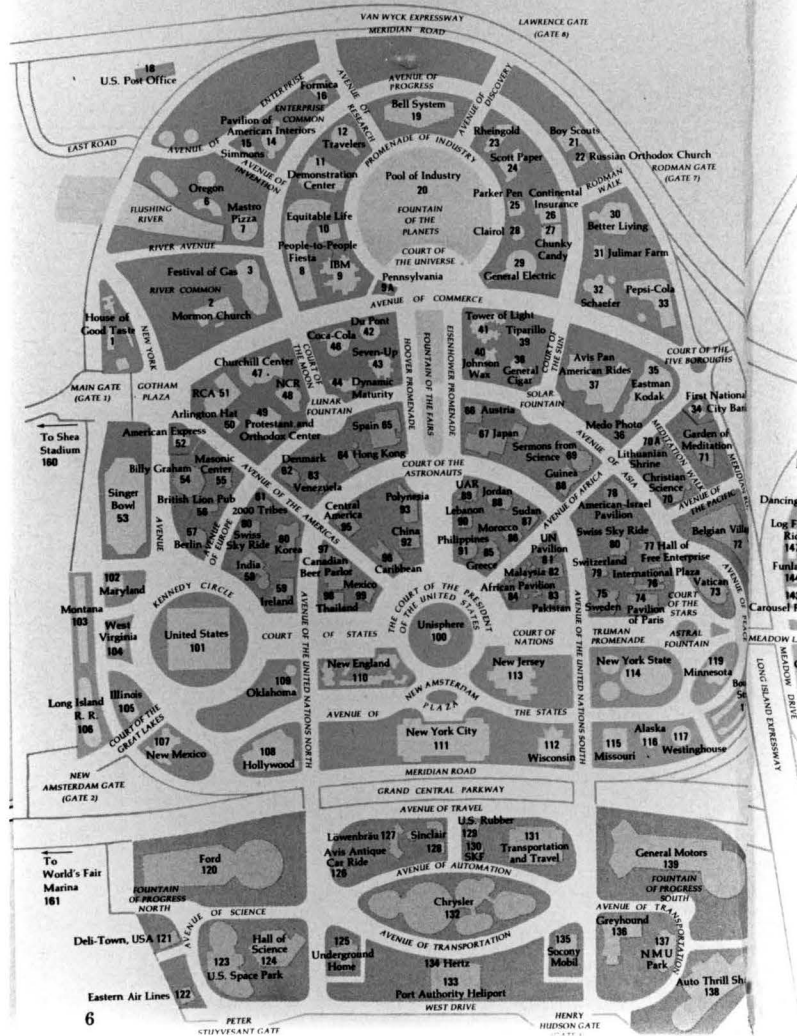
FINDINGS AND DESIGNATION

On the basis of a careful consideration of the history, the architecture, and other features of this structure, the Landmarks Preservation Commission finds that the Unisphere with its surrounding pool and fountains has a special character, special historical and aesthetic interest and value as part of the development, heritage and cultural characteristics of New York City.

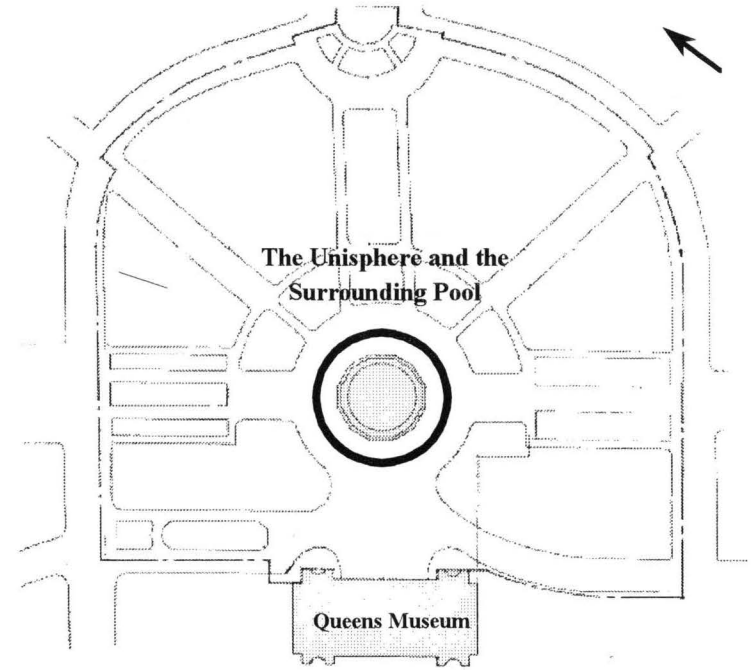
The Commission further finds that, among its important qualities, the Unisphere with its surrounding pool and fountains was the centerpiece and visual logo of the 1964-65 New York World's Fair, symbolizing its theme of "Peace Through Understanding"; that it was designed by noted landscape architect Gilmore D. Clarke, who had devised the geometric, Beaux Arts-inspired layout of Flushing Meadows Park which formed the basis of the plan for this World's Fair as well as the earlier 1939-40 World's Fair; that the Unisphere, which was commissioned to celebrate the dawn of the space age, was constructed and donated to the park by the United States Steel Corporation; that the design of the Unisphere, a steel cage 120 feet in diameter composed mainly of curving structural members, which represent the lines of latitude and longitude supporting representations of the continents and three suspended orbital rings, presented several engineering challenges; and that the Unisphere remains one of the most prominent structural and landscape features of Flushing Meadows-Corona Park, as well as a striking visual reminder of the second of New York City's great World's Fairs.

Accordingly, pursuant to the provisions of Chapter 74, Section 3020 of the Charter of the City of New York and Chapter 3 of Title 25 of the Administrative Code of the City of New York, the Landmarks Preservation Commission designates as a Landmark the Unisphere with its surrounding pool and fountains, Flushing Meadows-Corona Park, Borough of Queens, and designates Bourough of Queens Tax Map Block 2018, Lot 1 in part, consisting of the land bounded by a line extending around the inner edge of the walkway encircling the described improvements, as its Landmark Site.

PLAN OF THE FAIR



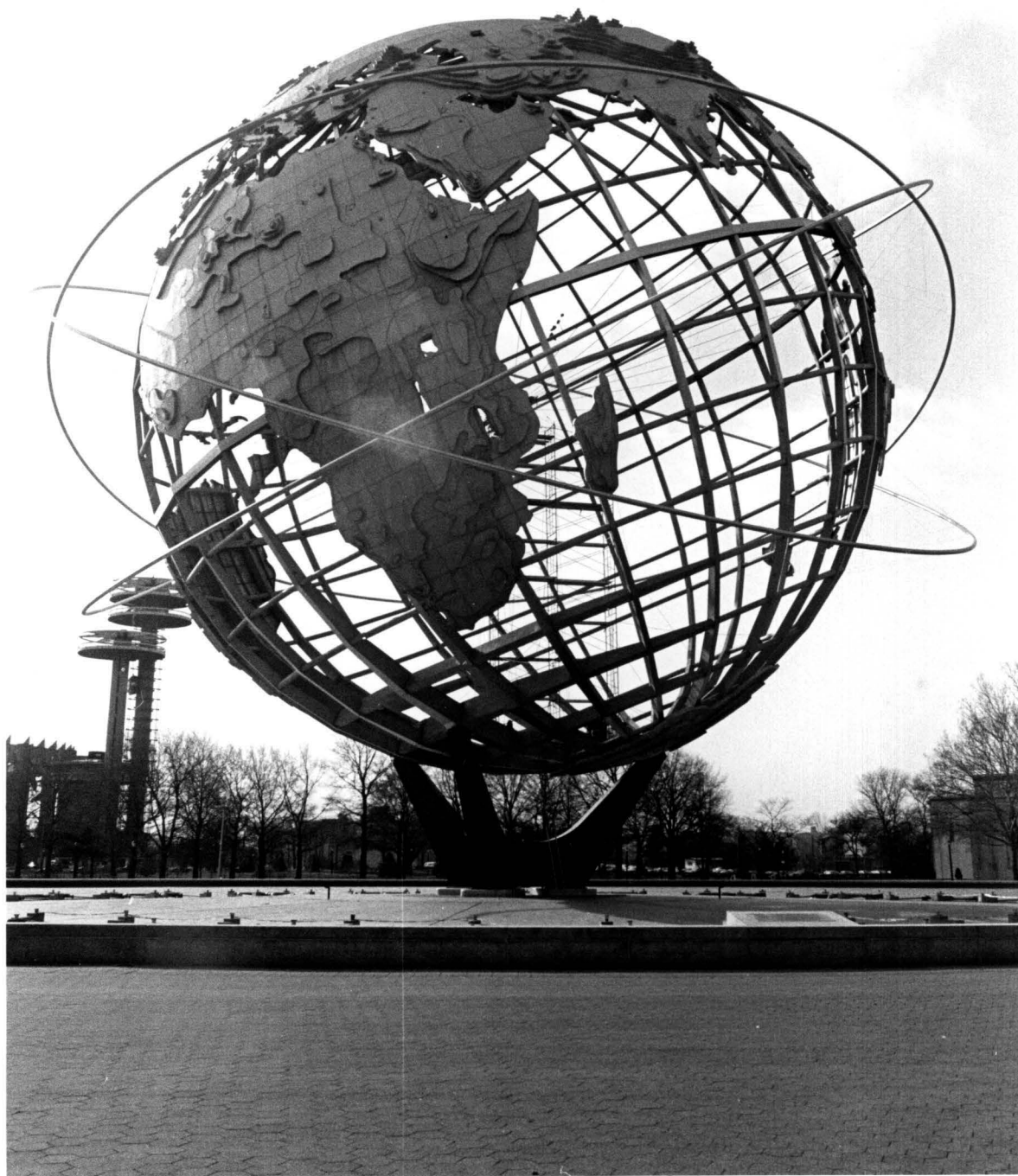
The Unisphere and the Surrounding Pool, Flushing Meadows, Corona Park, Queens



Plan of the 1964-65 New York World's Fair, from the *Official Guide to the Fair* (Unisphere is site #100).

Landmark Site: Borough of Queens Tax Map Block 2018, Lot 1 in part, consisting of the land bounded by a line extending around the inner edge of the walkway encircling the described improvement.

Designated May 10, 1995



The Unisphere, from the northwest.

Photo: Donald G. Presa



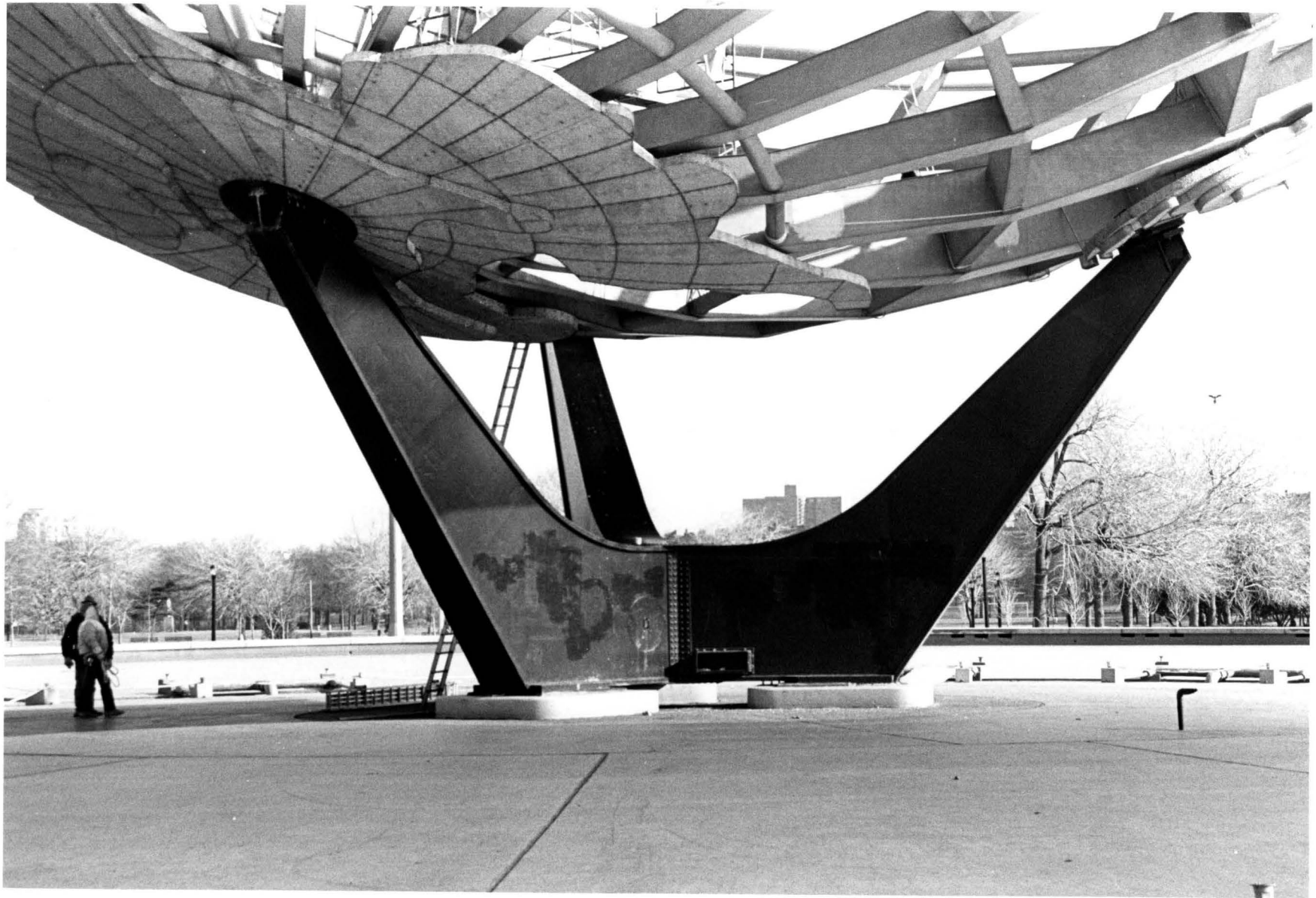
The Unisphere, from the east.

Photo: Donald G. Presa



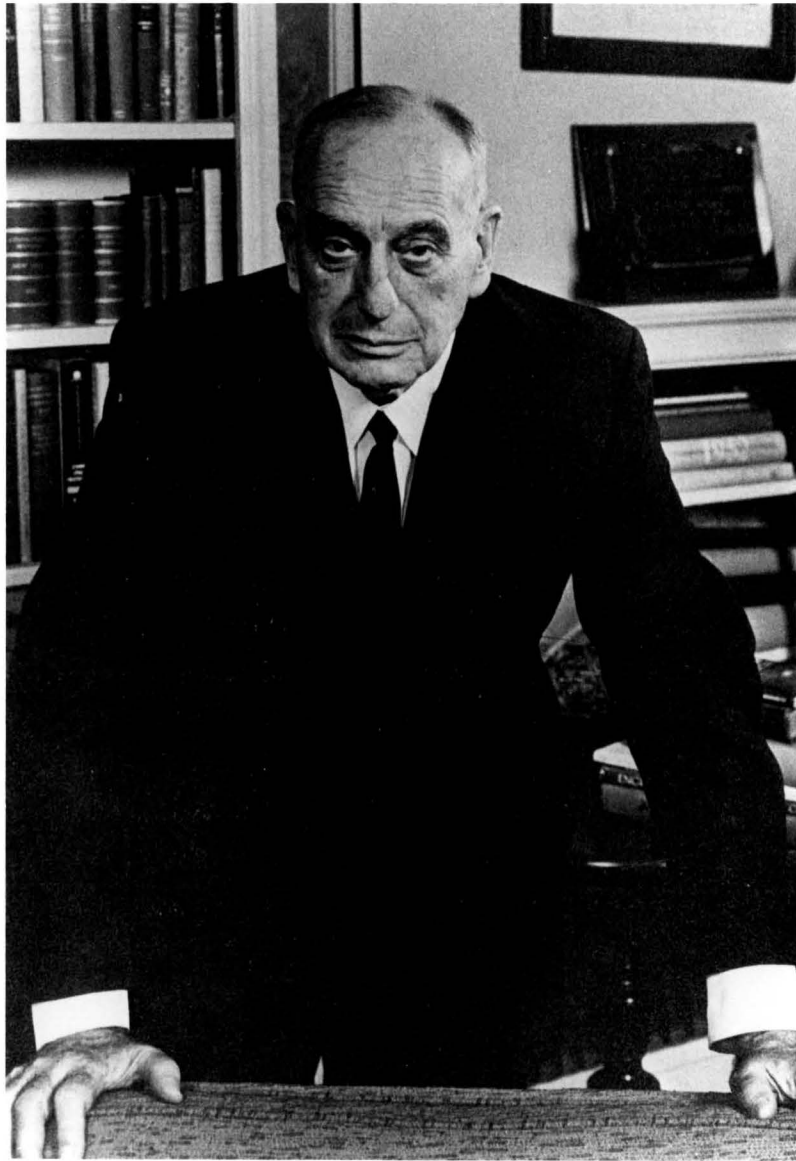
The Unisphere. The circles forming the armillary sphere represent the lines of latitude and longitude.

Photo: Donald G. Presa

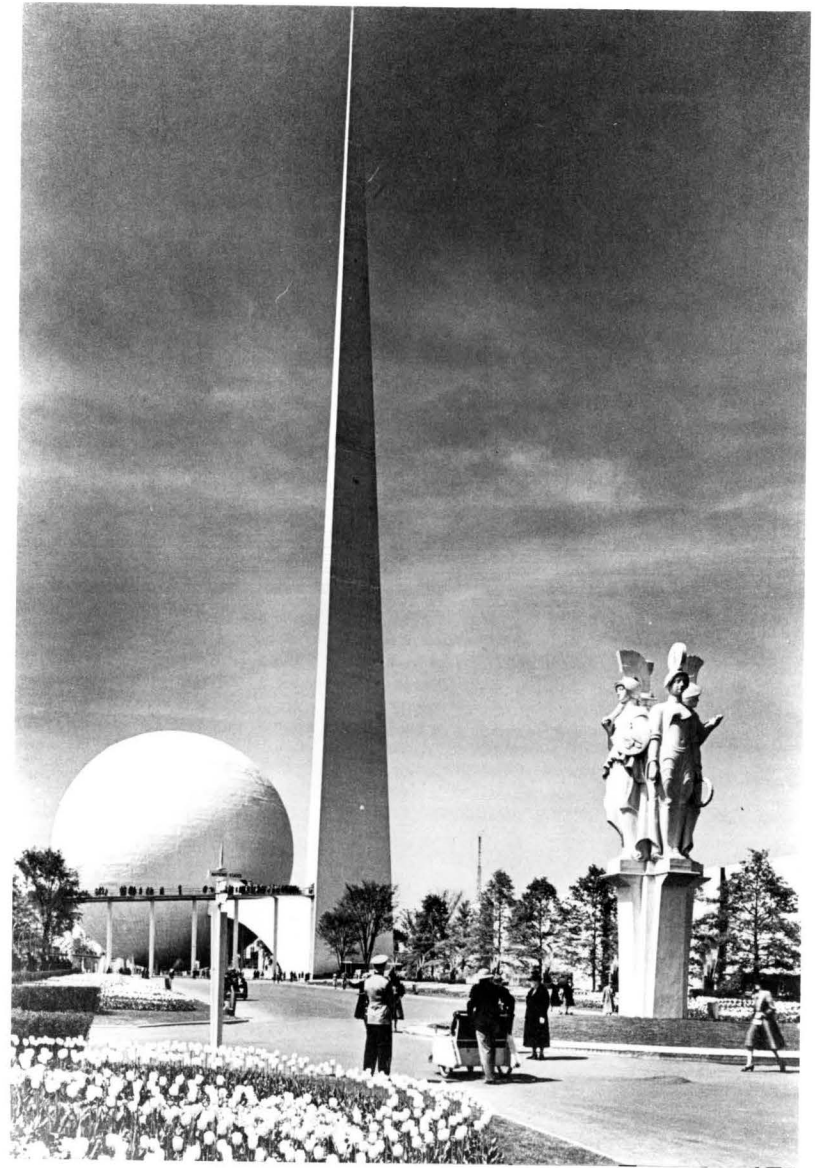


The Unisphere's steel base, set within the reflecting pool basin.

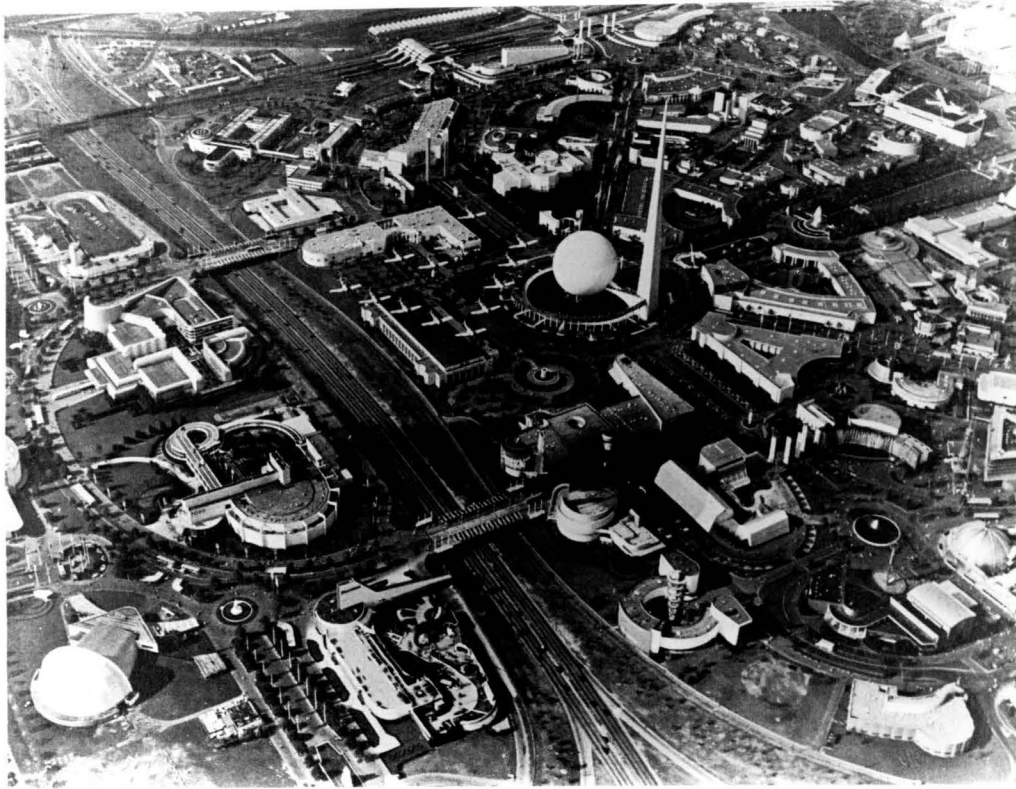
Photo: Donald G. Presa



Robert Moses, c. 1960.
Photo: Arnold Newman from Robert A. Caro,
The Power Broker (1974), following p. 978



The Trylon and Perisphere at the 1939-40 New York World's Fair (now the location of the Unisphere)
Photo: Wurts Bros. from *The New York World's Fair 1939-1940* by Richard Wurts and others (1977), p. 2.



Aerial view of the 1939-40 New York World's Fair.
Trylon and Perisphere (center), now the site of the Unisphere

Photo: Wurts Bros. From *The New York World's Fair 1939-1940* by Richard Wurts and others (1977), p. 46



Aerial View of the 1964-1965 New York World's Fair
(Unisphere at upper left).

Photo: From Robert A. Caro, *The Power Broker* (1974), following p. 562.



The Unisphere under construction in 1963.

Photo: *Architectural Review*, 134 (Dec. 1963), 386.