PDHonline Course C589 (4 PDH)

UNISPHERE: Miracle in the Meadow

Instructor: Jeffrey Syken

2020

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Part 1

A Fair to Remember

"…One of the most famous and majestic examples of structures which symbolized a world's fair was the Eiffel Tower, a structure which at the 1889 Paris International Exposition, thrust its graceful yet stalwart frame to a height of 984-feet, and still stands in all of its grandeur…"

Roger Blough – Chairman of the Board, United States Steel Corp.

RE: excerpt from his March 6th 1963 "first Steel" ceremony speech

Exposition Universelle de 1889

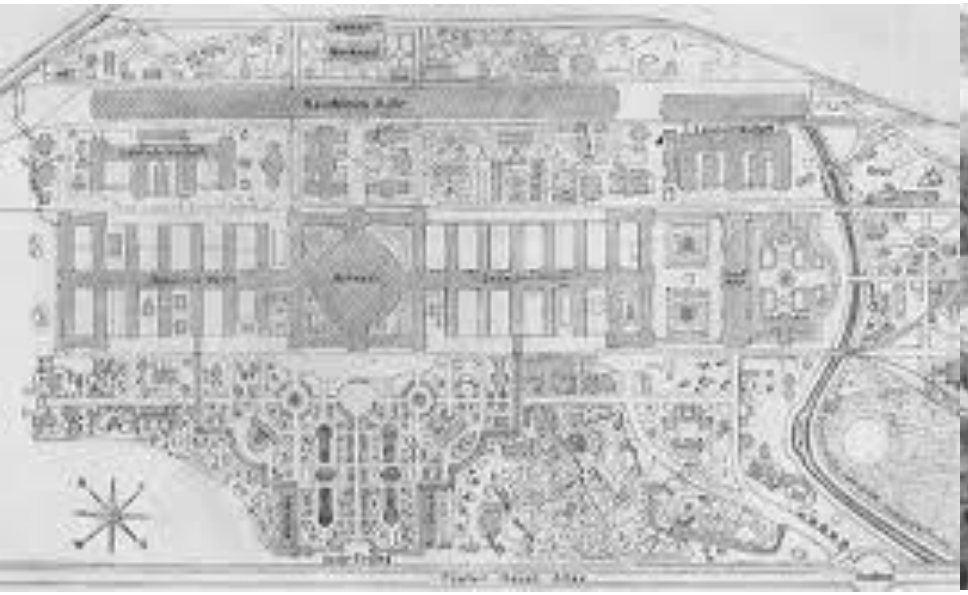
"It will be the biggest and the most unusual exhibition the world has ever seen. The French love great size; once again, they are proving that this is something they understand…their exhibition celebrating the 100th anniversary of 1789 is already astounding. No money or effort has been spared. Nothing shabby spoils the view…half the civilized world will be lured to Paris, and most certainly with good reason, for this is the most beautiful exhibition the world has ever seen."

***Pall Mall Gazette*, 1889**

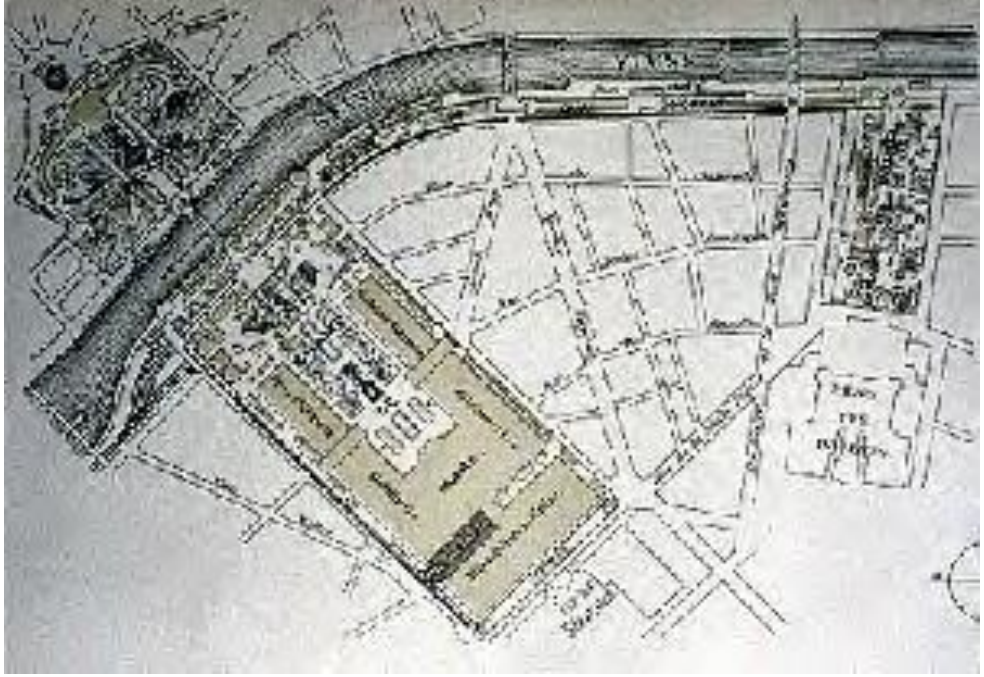
"They see in this marvelous exhibition, this obedience of the nations to their summons, this thronging of all peoples…proof positive that their city, which they are as proud of as Americans of their 40 states…and think with a pitying kindness of all those to whom fate has denied the privilege of belonging to such a city"

The Spectator

Expositions had developed from a single structure (i.e. London's *Crystal Palace* of 1851, above) to many buildings distinguished by classification of exhibits – such as the *Vienna Exposition* of 1873, to buildings separated by nation demonstrated at the 1889 Paris Exposition. The latter would also begin the tradition of a *Centerpiece*.



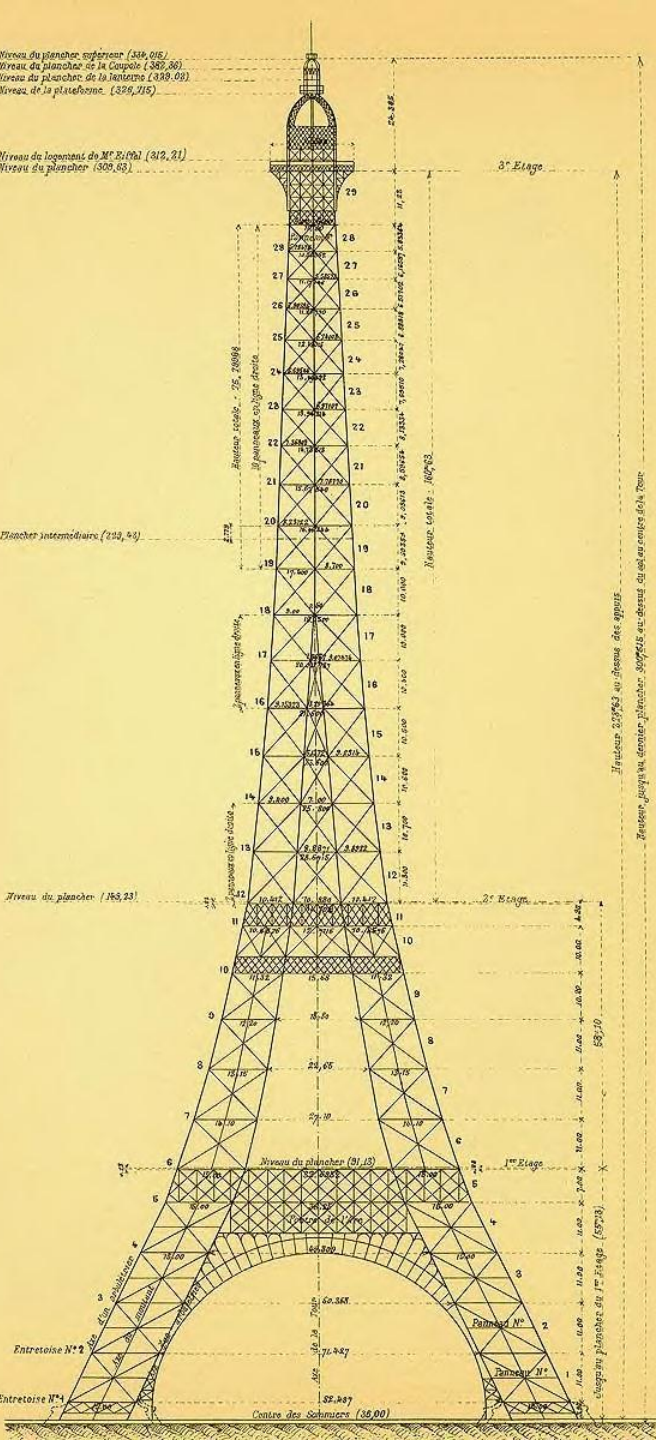
Vienna Exposition
1873



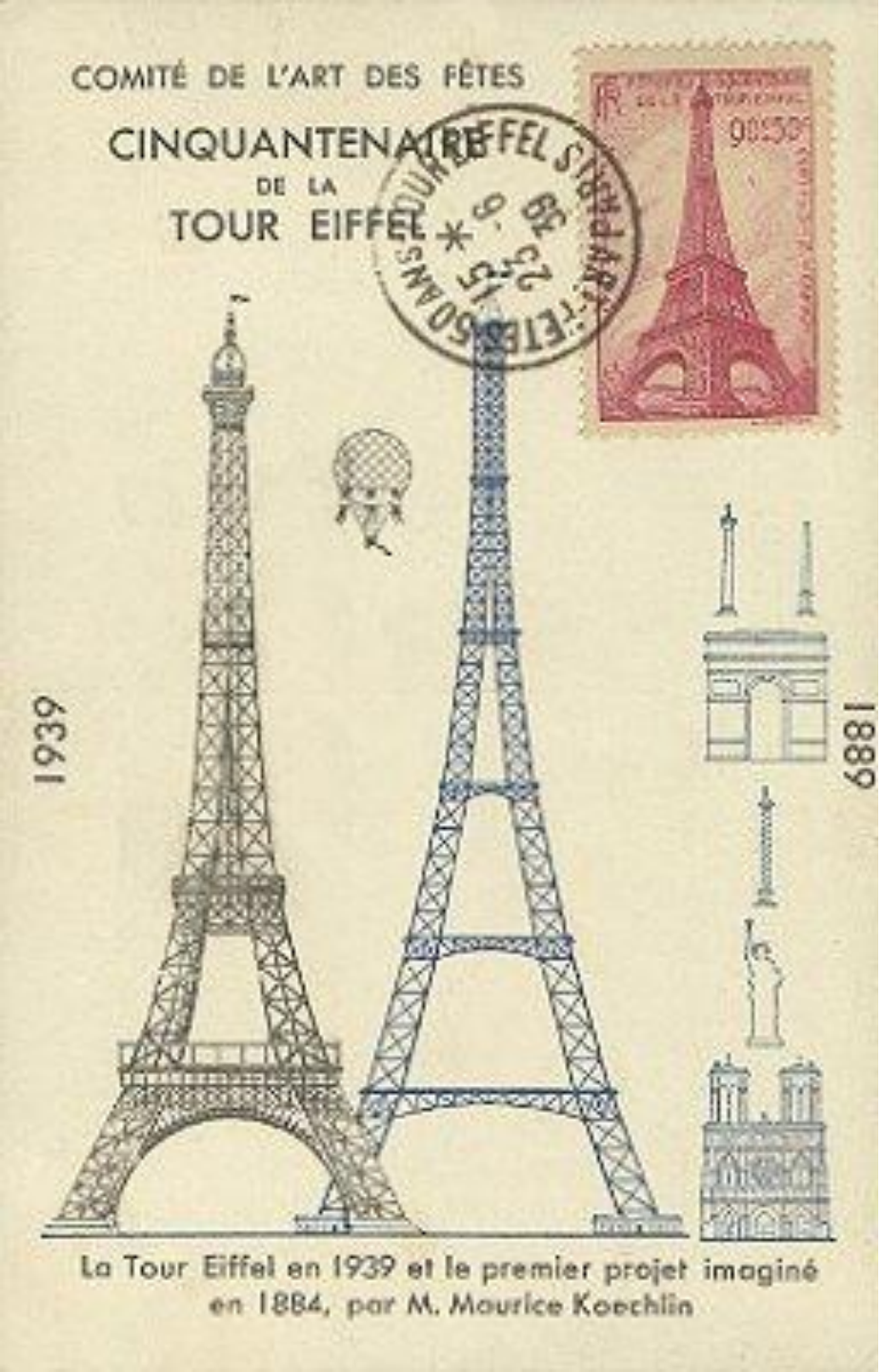
"Study the possibility of erecting on the Champ de Mars an iron tower with a base 125-meters square and 300-meters high"

Eduouard Lockroy - *Minister of Commerce & Industry*

RE: invitation to architects & engineers published in the French government publication: *Journal Official*, for a tower which was intended to be the central feature for the 1889 *International Paris Exposition Universalle* celebrating the centennial of the French Revolution



A public competition was held in the spring of 1886. Since Gustav Eiffel's plans for the tower had progressed to the working drawing/s stage (structural elevation at left), the outcome of the two-week long competition was never in doubt. Eiffel would be given rights of use to the tower until the year 1910. In return, he was to cover the estimated construction cost of 6.5 million francs from his own resources (apart from a state subsidy of 1.5 million francs). At first, Eiffel was not interested in the design competition for the 300-meter tower. It was due to the initiative and efforts of his subordinates (and the realization that the tower would make him both rich and famous) that he took part and won the competition.



50th Anniversary Postcard (1889-1939)

Showing the original design submittal at right (in blue) with height comparisons of *Notre Dame*, *Statue of Liberty* etc.

"…the tower to be built for the 1889 Exposition Universelle should clearly have a distinctive character, and should be an original master-piece of work in metal, and that only the Eiffel Tower seemed to satisfy these requirements fully"

RE: decision by the Paris Committee on June 12th 1885 to use Gustav Eiffel's design for the centennial tower. Seven-hundred ideas were narrowed down to 107 serious applicants, then narrowed down to just nine – including Jules Bourdais' *Tour Soleil* (Tower of the Sun)

The Artist's Protest

"We come, lovers of the beauty of Paris which was until now intact, to protest with all our strength and all our indignation, in the name of the underestimated taste of the French, against the erection in the very heart of our capital this arrogant iron mongery, this disgraceful skeleton…Even commercial America wouldn't want it…"

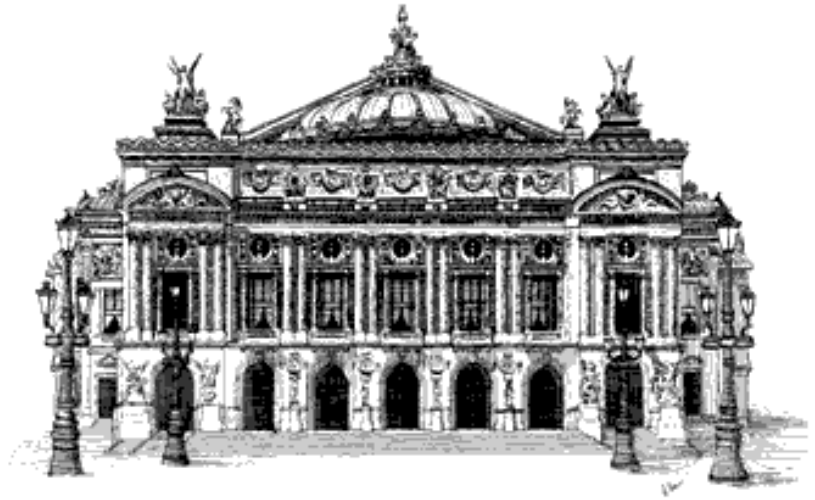
RE: excerpts from: *The Protest Against the Tower of Monsieur Eiffel* – a.k.a. *The Artist's Protest*

"It seems to me that it had no other rationale than to show that we are not simply the country of entertainers, but also that of engineers and builders called from across the world to build bridges, viaducts, stations and major monuments of modern history, the Eiffel Tower deserves to be treated with consideration"

Gustav Eiffel

"Honored compatriot – authors, painters, sculptors, architects, enthusiastic lovers of beauty, which has hitherto been respected in Paris – we wish to protest with all our energy, and with all the indignation of which we are capable, in the name of art and of French history now menaced, against the erection in the heart of our capital of the useless and monstrous Eiffel Tower, which public satire, often full of good sense and a spirit of justice, has already christened the 'Tower of Babel'…Does the City of Paris really want to be linked with the overwrought, wild fancies displayed by this mechanical construction – or its designer – and in this way disgrace and dishonor herself forever?"

RE: *Protestation des Artistes* (47 of them) as published in *Les Temps* – February 1887



Charles Garnier (left), architect of the *Paris Opera House* and leader of the *Artist's Protest*

"Not that I fear for Paris. Notre-Dame will remain Notre-Dame and the Arc de Triumphe will remain the Arc de Triumphe. But I could have saved only part of this city which is seriously in danger; that incomparable sand pile called the Champs de Mars, such an inspiration for our poets and so attractive to our landscape painters…Above all do not say that it is unfortunate that the exhibition is being attacked by those who should be defending it; that a protest signed by such illustrious names will echo throughout Europe and may be used as a protest by some nations not to take part in our celebration; that it is bad to attempt to ridicule a peaceful undertaking which the French nation is so attracted to…"

Edouard Lockroy – *Minister of Commerce & Industry*

RE: response to cultural elitists' attacks on the Eiffel Tower

"I left Paris and even France because of the Eiffel Tower. Not only is it visible from every point in the city, but it is to be found everywhere, made of every known material, exhibited in every shop window, an unavoidable and tormenting nightmare. I wonder what will be thought of our generation if, in some future riot, we do not unbolt this tall, skinny pyramid of iron ladders, this giant and disgraceful skeleton with a base that seems to support a formidable monument of Cyclops and which aborts into the thin ridiculous profile of a factory chimney."

Guy de Maupassant, 1890

"Without rebuilding the Tower of Babel, one can see that the idea of constructing a tower of very great height has for a long time haunted the imagination of mankind. This kind of victory over the terrible law of gravity which attaches man to the ground always appeared to him a symbol of the forces and the difficulties to be overcome. To speak only of our century, the thousand-foot tower which would exceed by twice the highest monuments it had been possible hither to construct, was a problem set down to be solved in the minds of English and American engineers. Besides, the new use of metals in the construction industry made it possible to approach it with a chance of success."

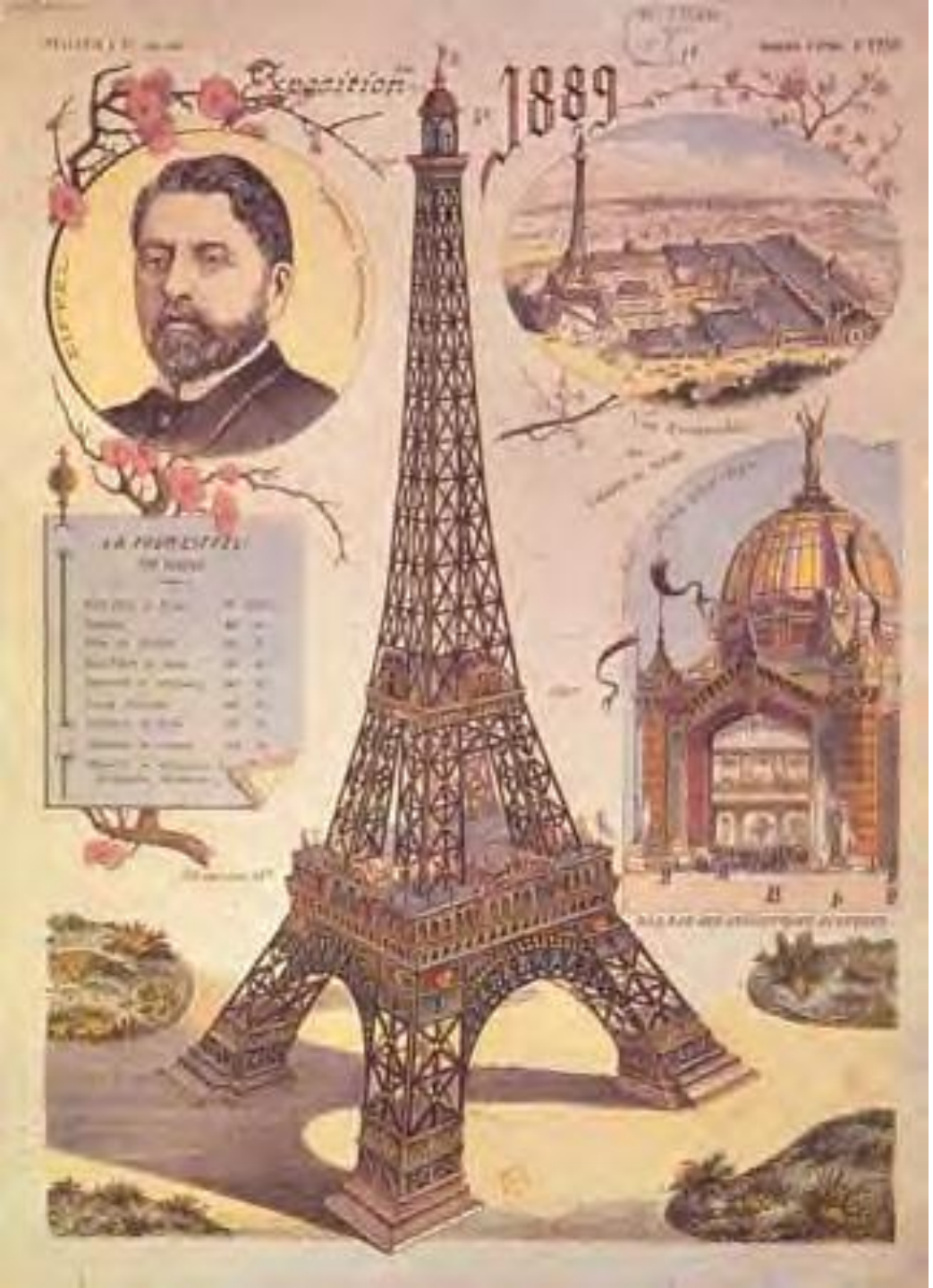
Gustav Eiffel

"It is not M. Eiffel who is to blame for his tower. Why were the government of France and the municipality of Paris willing to pay 16,000 pounds in order that the Eiffel Tower should be put up? Nobody pretends that it is or will be of the slightest use…Those who sanctioned and paid for the building can have been influenced only by the desire of putting up the tallest structure ever designed, and how is it that such a fancy pleases them? Their vanity is gratified? In what way?"

The Spectator

"I believe that my efforts have not been fruitless and we can tell the world that France remains at the forefront of progress…Man has always sought to erect buildings of a great height as a manifestation of power…it is only by the progress of science and art and of the metallurgical industry, which distinguishes our century, that we are able to overtake preceding generations by the construction of this tower"

Gustav Eiffel



"So much had been said against it that a visitor to the Exposition might have been excusably surprised not to find the Eiffel Tower vulgar. But the un-prejudiced visitor must have been still more surprised to find it a positively agreeable object"

New York newspaper corr-espondent, 1889

"It seems incredible that all these beautiful buildings should have sprung up in such a short time within the desert of mud and sand known as the Champs de Mars, and that this waste should in two years have been converted into an oasis of shady walks, flower beds and bright lawns…The buildings are remarkable for their graceful lines…Even the Eiffel Tower does not seem out of place, thanks to its vast proportions."

***The Times* (London)**

RE: 1889 Paris Exposition

The *Dome Central* is flanked by the *Palais des Beaux-Arts* and the *Palais des Arts-Liberaux* forming the 'U' which opens to the Eiffel Tower. The Dome Central provided the entry to a large gallery displaying industrial products. Adjoining it – at the eastern-end of the *Champs de Mars*, was the 423 meter long innovative *Gallerie des Machines*.

The Eiffel Tower as seen from the *Dome Central*

The *Dome Central*
(Exposition Entry)

"Back to Auteuil on foot, through the crowds of people. A mauve-colored sky, as one sees with an enormous fire… the Eiffel Tower looks like a lighthouse which a lost generation had left on Earth, a generation of people who were seven meters tall"

Edmond de Goncourt

RE: diary entry for May 6th 1889

Strategic Operations: In case of war or siege it would be possible to watch the movements of an enemy within a radius of 45 miles, and to look far beyond the heights on which our new fortifications are built

Meteorological Observations: It will be a wonderful observatory in which may be studied the direction and force of atmospheric currents, the electrical state and chemical composition of the atmosphere, its hygrometry etc.

Astronomical Observations: The purity of the air at such a height, the absence of mists which often cover the lower horizons in Paris, will allow many physical and astronomical observations to be made which would be impossible in our region

Scientific Experiments: May be made, including the study of the fall of bodies in the air, resistance of air according to speed, certain laws of elasticity, compression of gas and vapors, and, using a large-scale pendulum, the rotation of the earth

"It will be an observatory and a laboratory such as has never been placed at the disposal of scientists"

Gustav Eiffel

RE: proposed uses of the tower after the 1889 exposition. The Eiffel Tower was to be torn down in 1909, but its usefulness to the nation for communications, meteorology and scientific experimentation saved it from the wrecker's ball. Despite the cultural elite's disdain for it, the Eiffel Tower was much beloved by Parisians from the very beginning.

"Rising above the plaster palaces with their twisted décor, it looks as pure as crystal…everywhere and among the humble as among the others, the tower is in everyone's heart as the sign of a beloved Paris, beloved sign of Paris"

***Le Corbusier*, 1925**

"Mr. Eiffel, it is my great privilege to present to you this stainless steel plaque honoring the memory of your grandfather and inscribed as follows:

Man's achievement in an expanding universe. Eiffel Tower 1889, Unisphere, 1964. Commemorating start of construction of Unisphere. The theme symbol of the New York World's Fair, 1964-1965, and honoring Gustave Eiffel, magician in iron, engineer, designer, master builder, innovator, and creator of Eiffel Tower, symbol of the 1889 Paris International Exposition.

Roger Blough – Chairman of the Board, U.S. Steel Corp.

RE: excerpt from his March 6th 1963 "first Steel" ceremony speech. The plaque was given to *Rene Legrain Eiffel*, grandson of Gustave Eiffel.

Rene Legrain Eiffel gives the signal to start construction of *Unisphere* – theme symbol of the 1964/65 NYWF at the "first steel" ceremonies for Unisphere, held on Wednesday, March 6th 1963

Part 2

The World of Tomorrow

"It is an inspiring thing for nations and communities to have high objectives. The World's Fair in New York is a challenge to all Americans who believe in the destiny of this nation, and who welcome the knowledge that the Exposition is to focus upon one central theme: Building the World of Tomorrow…"

Franklin Delano Roosevelt, POTUS

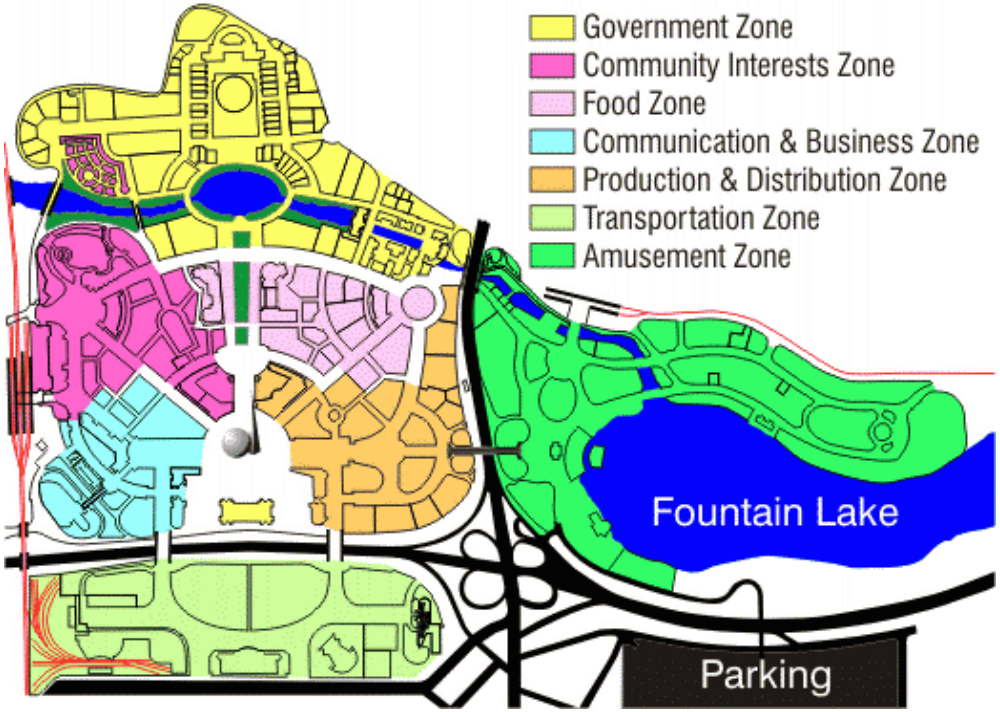
"To the millions of Fair visitors, assembled from the many nations of the world, we bid a hearty welcome…This is your Fair, built for you, dedicated to you. You will find it a never ceasing source of wonder. We feel it will delight and instruct you. We believe that you cannot fail to receive the more serious message: how you and I and all of us can actively contribute, both for ourselves and our communities, toward that better 'World of Tomorrow' to which we all look forward."

Grover A. Whalen – 1939/40 NYWF President

Mere mechanical progress is no longer an adequate or practical theme for a World's Fair. Instead we must demonstrate an American way of living. We must tell the story of the relationship between objects in their everyday use – how they may be used and when purposefully used how they may help us.

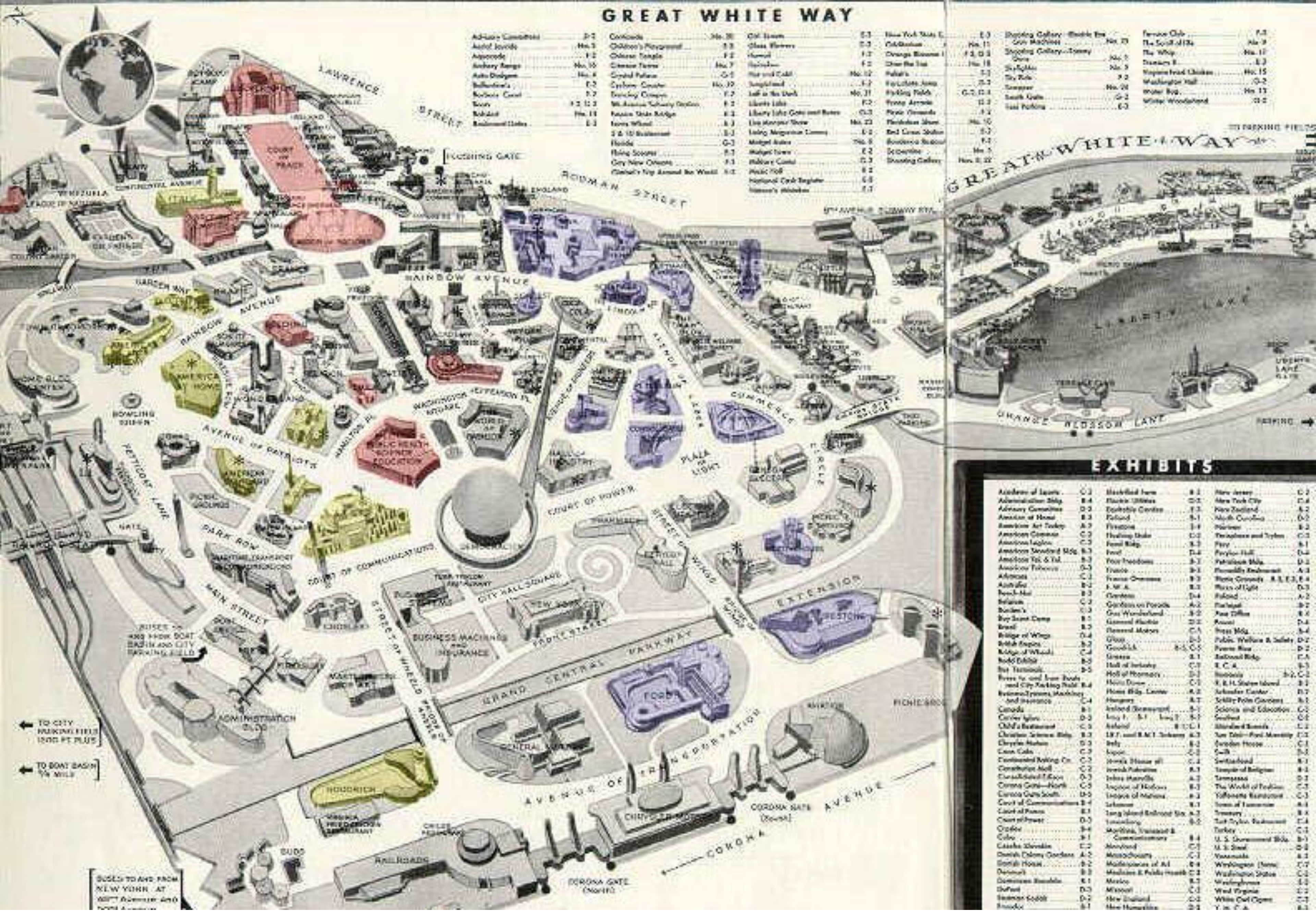
Michael Hare, December 11th 1935 – *Fair of the Future* Committee Secretary

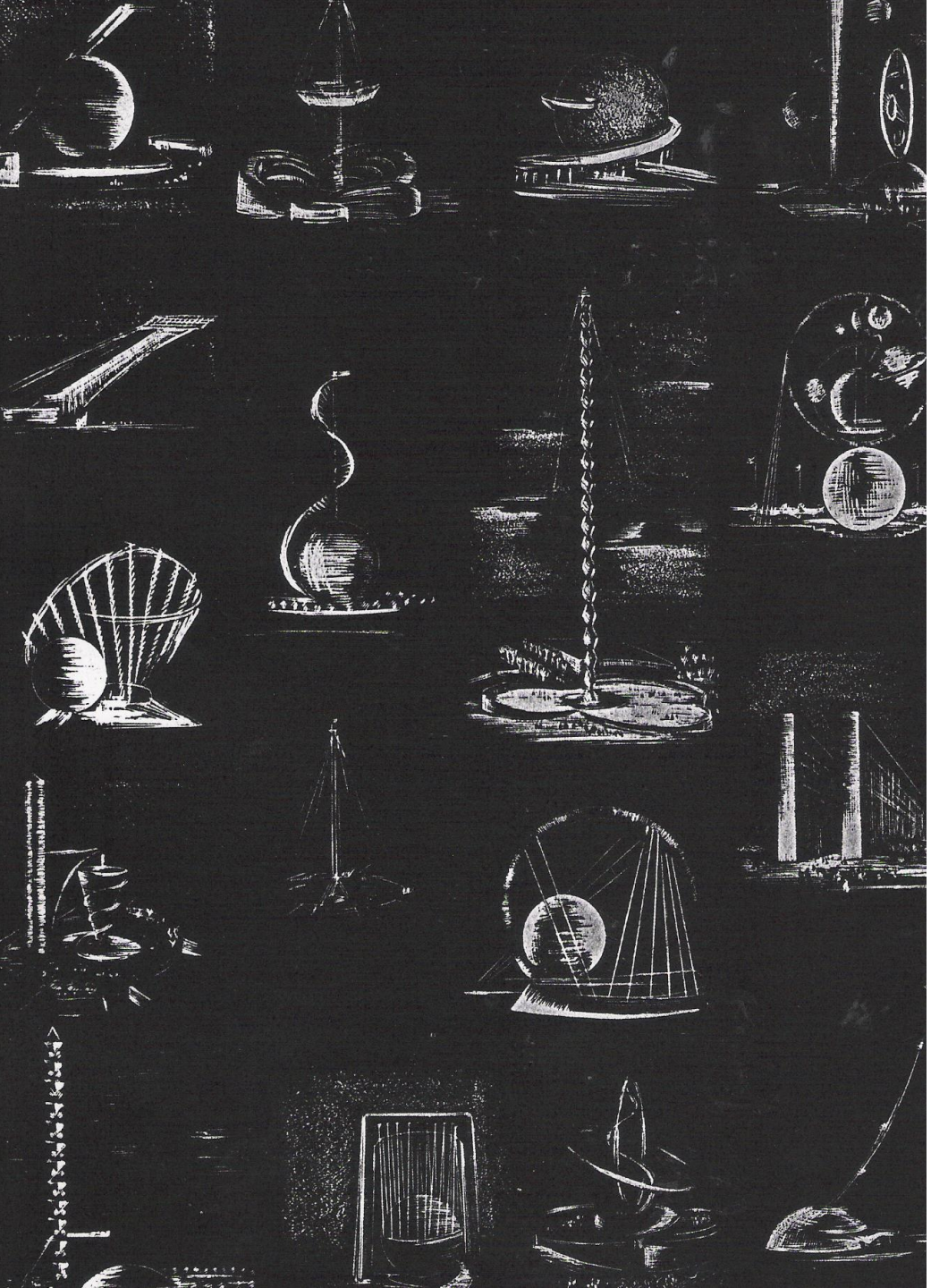
Theme Center



"The Exposition is divided into seven great sectors or zones: Amusement, Communications, Community Interests, Food, Government, Production and Distribution, and Transportation. Visitors with special interests will first wish to examine the zone which embraces their special interests. The average man, meaning you and me, will wish to see every part of the 'WORLD OF TOMORROW'"

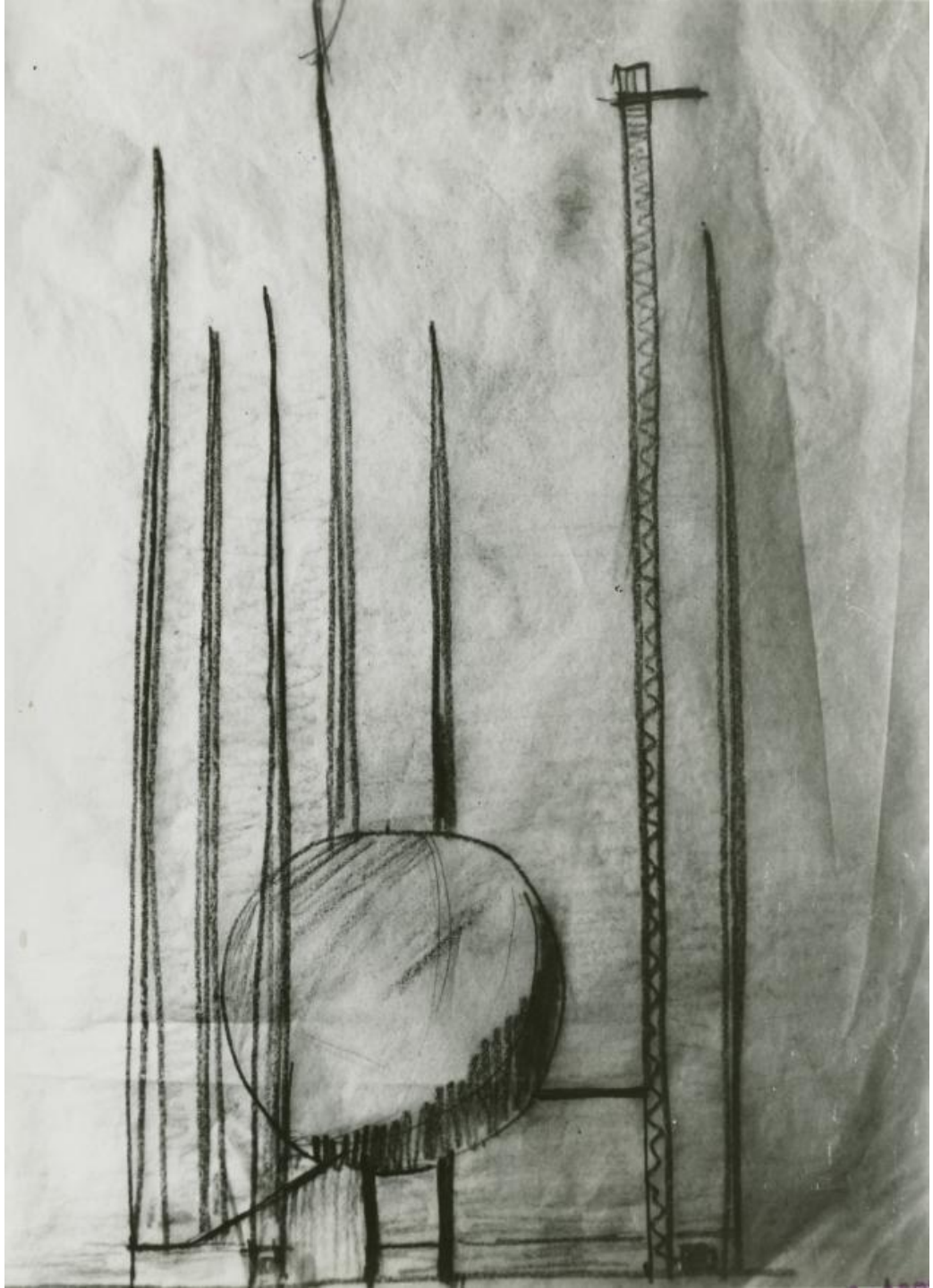
Official Souvenir Book NYWF 1939

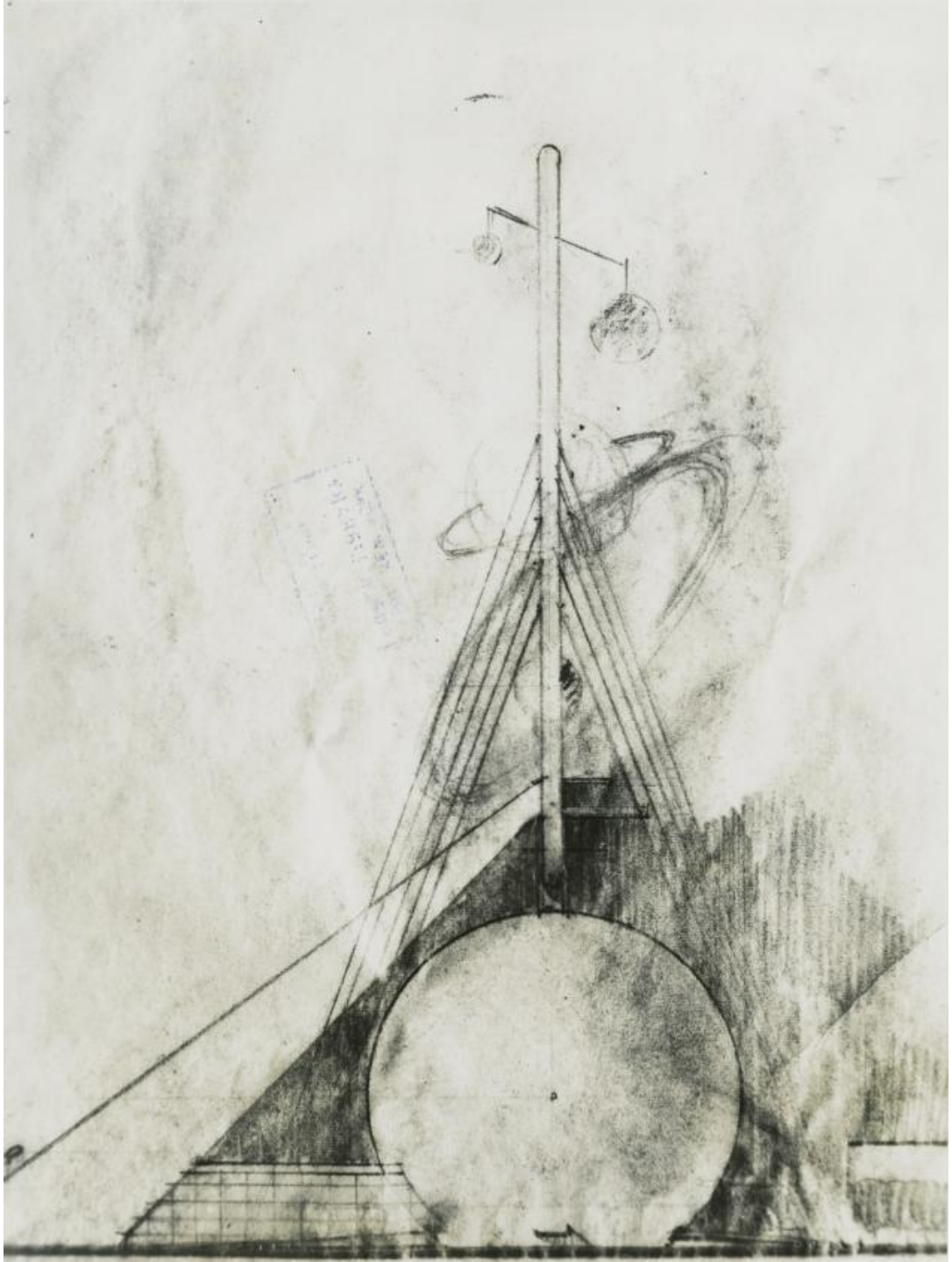

GREAT WHITE WAY
LAWRENCE STREET
RODMAN STREET
PARKING GATE
COURT OF PEACE
RAINBOW AVENUE
GREAT WHITE WAY
LIBERTY LAKE
ORANGE BLOSSOM LANE
PARKING
EXHIBITS
AMERICA AT HOME
BOWLING GREEN
AVENUE OF PATRIOTS
PETTICOAT LANE
PARK ROW
MAIN STREET
WASHINGTON SQUARE
PUBLIC HEALTH
COURT OF POWER
PLAZA OF LIGHT
COMMERCE
CIRCLE
COURT OF COMMUNICATIONS
CITY HALL SQUARE
FRONT STREET
STREET OF WHEELS
EXTENSION
BUSINESS MACHINES AND INSURANCE
GRAND CENTRAL PARKWAY
FORD
GENERAL MOTORS
ADMINISTRATION BLDG
TO CITY PARKING FIELD 1500 FT PLUS
TO BOAT BASIN 1/4 MILE
GOODRICH
AVENUE OF TRANSPORTATION
CORONA AVENUE
CORONA GATE (South)
CORONA GATE (North)
RAILROADS
AVIATION
PICNIC GROUNDS



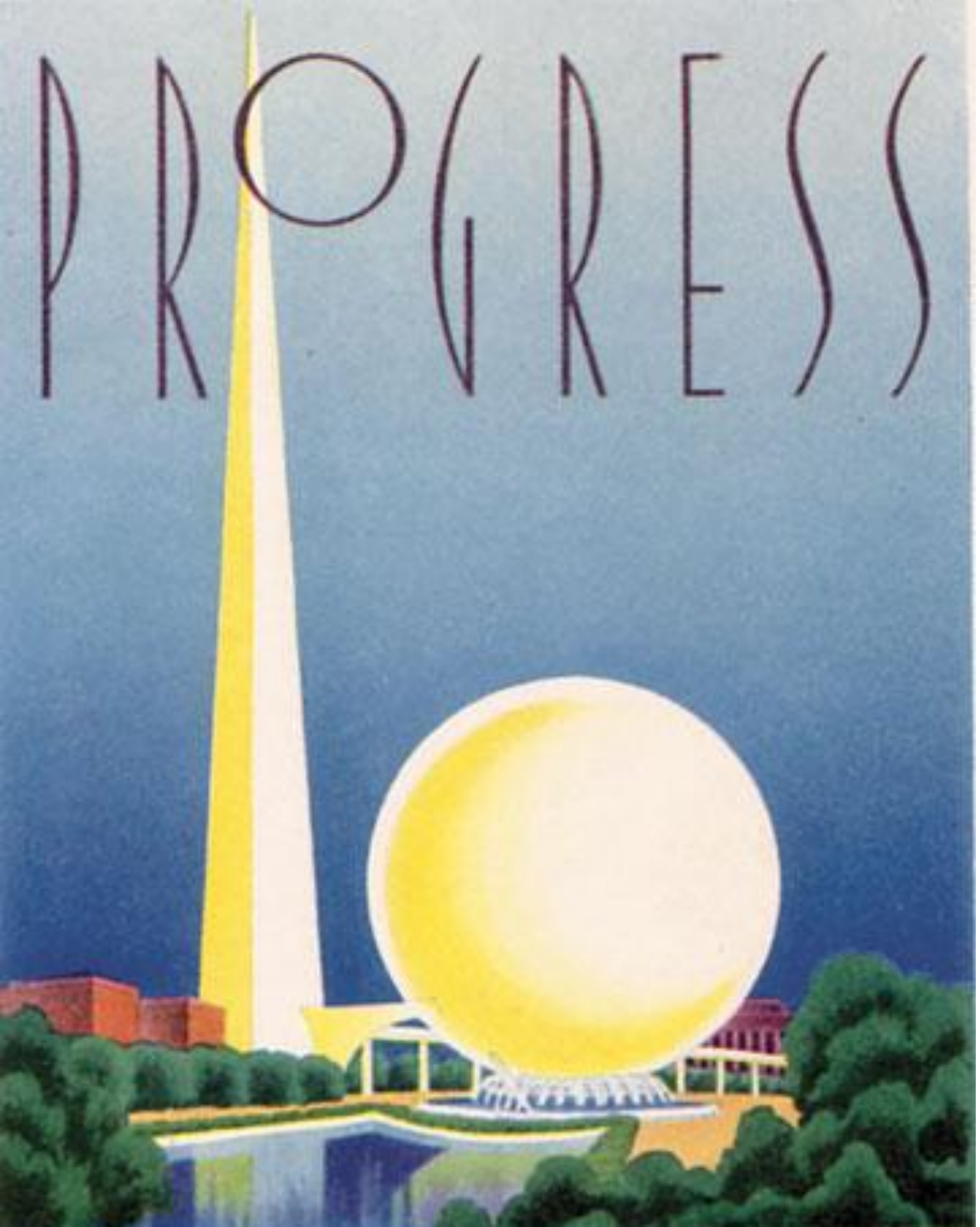
"We found ourselves constantly referring to the domes and campaniles of Venice, perhaps because the flat country and water of the Fair grounds are very like that of the site of Venice and in addition the sky color of New York is practically the same."

Wallace K. Harrison - Theme Center Architect, 1939/40 NYWF. Harrison and partner J. Andre Fouilhoux produced +1K sketches before the final design was chosen.

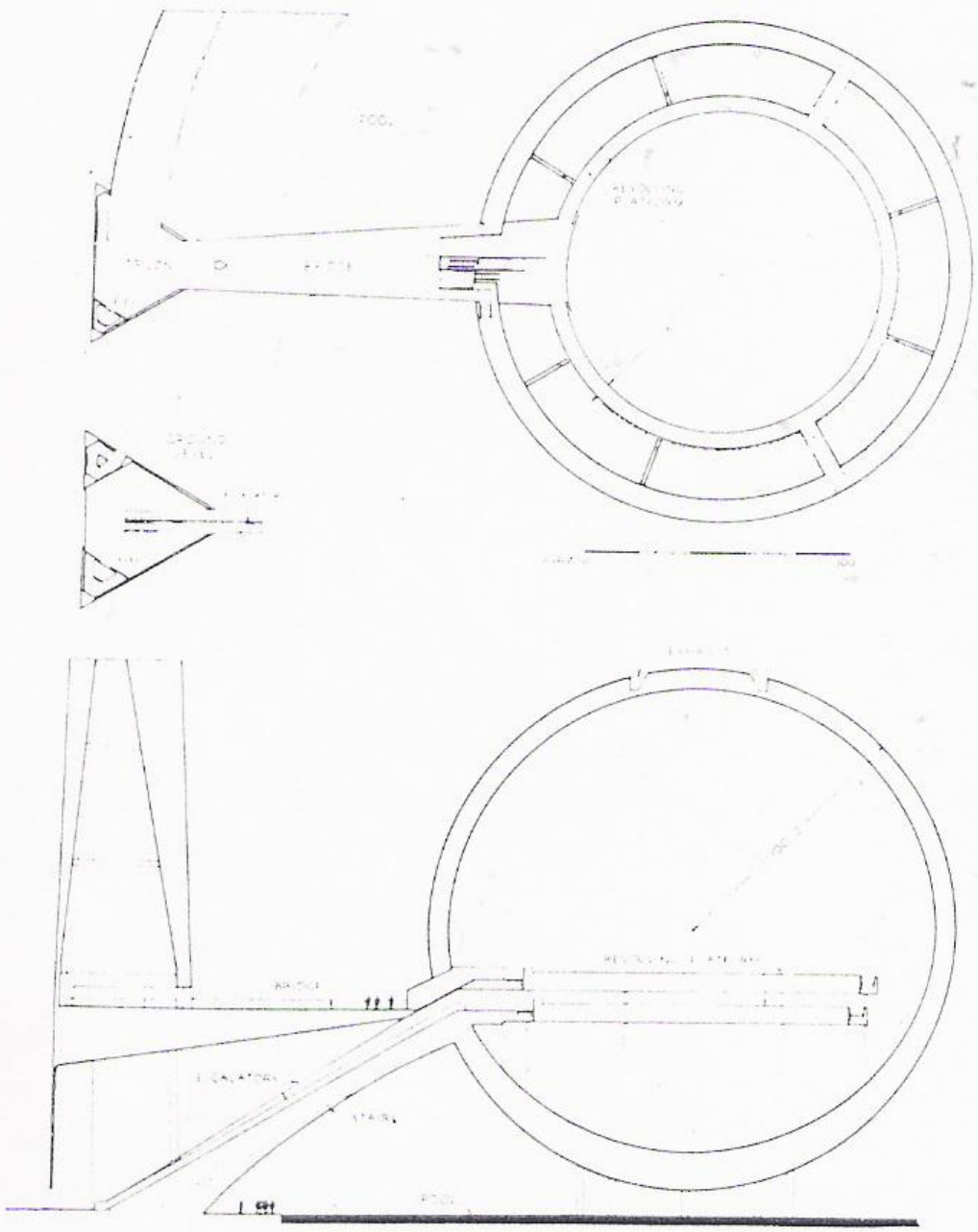




The Ball and the Bat

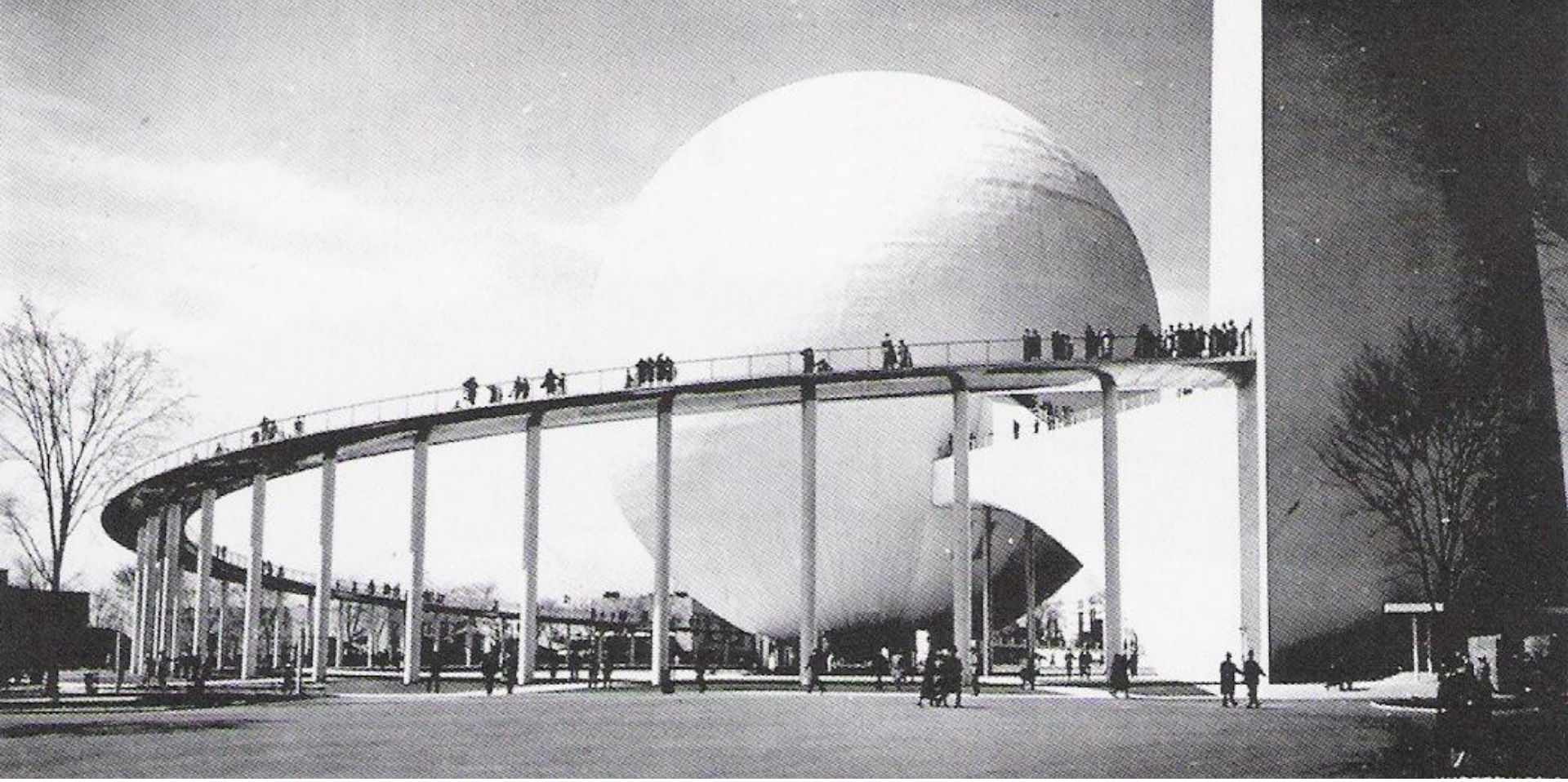


Marking the "Theme Center" of the 1939/40 NYWF fair, the *Trylon* and *Perisphere* were designed to evoke the finite and the infinite. The names "Trylon" and "Perisphere" were taken from Greek roots to communicate the form and function of the fair's centerpiece. *Tri* denotes the three-side pylon and *Peri* refers to the all-around view of tomorrow's world from inside the huge globe. The Trylon stood 610-feet tall and the Perisphere was 180-feet in diameter. Despite this high-minded vocabulary, locals often referred to the fair's centerpiece as "the ball and the bat."

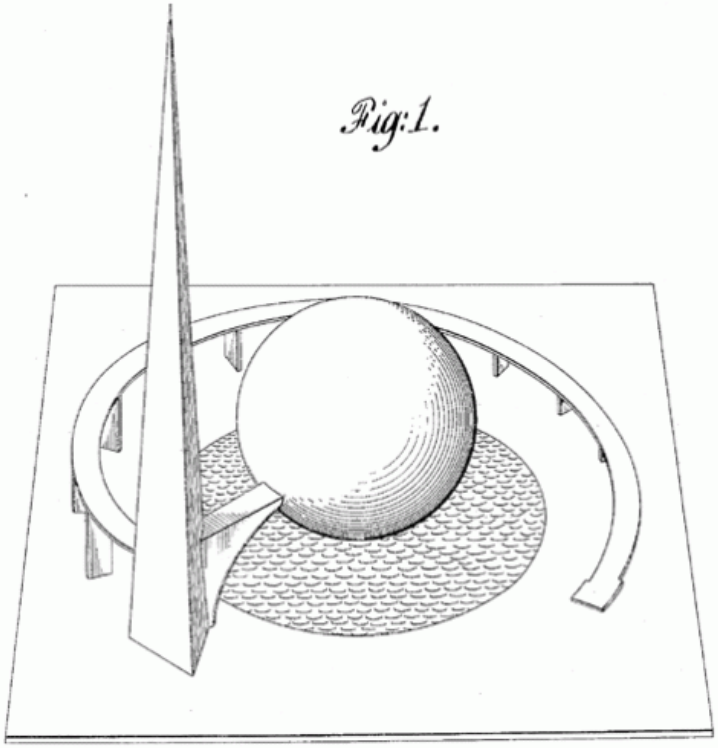


"…the question arose of how to get the people up to it? Someone came up with the idea of escalators: none existed in the U.S. big enough for the job, and the firm that made the London subway escalators was brought in. So you have a big form with an escalator and the next question is, how do you get the people down? The solution seemed to be a ramp."

Wallace K. Harrison,
Theme Center Architect



The *Perisphere* – roughly twice the size of the interior of *Radio City Music Hall*, stood eighteen-stories high. Fairgoers rode an escalator from the *Trylon* then entered the Perisphere and stood on moving platforms from where they could view the *Democracity* exhibit. A 950-foot ramp which circled the Perisphere – the *Helicline*, provided the means of egress.



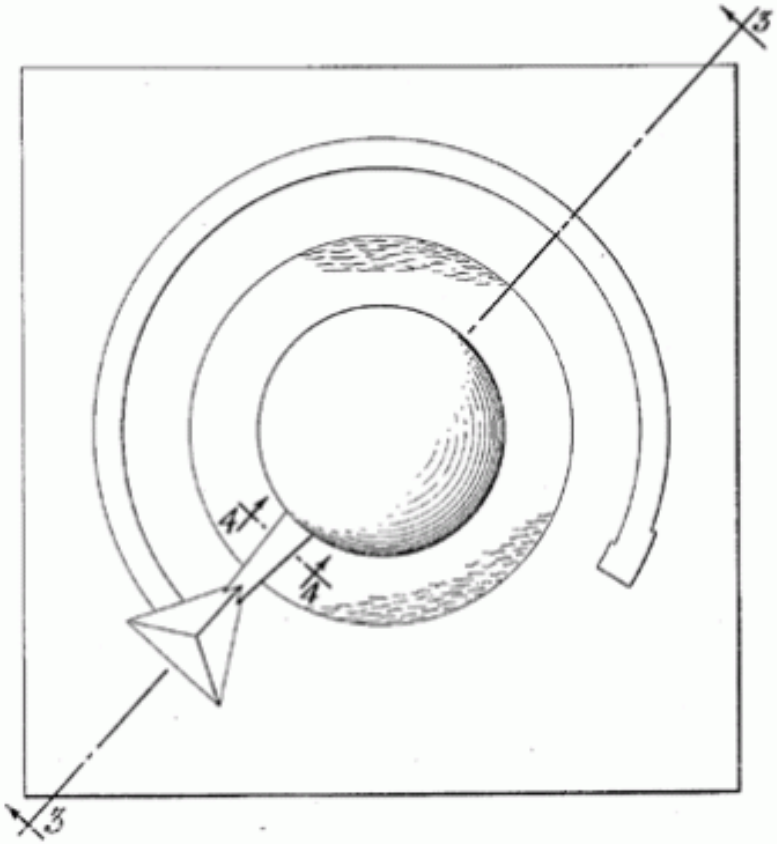
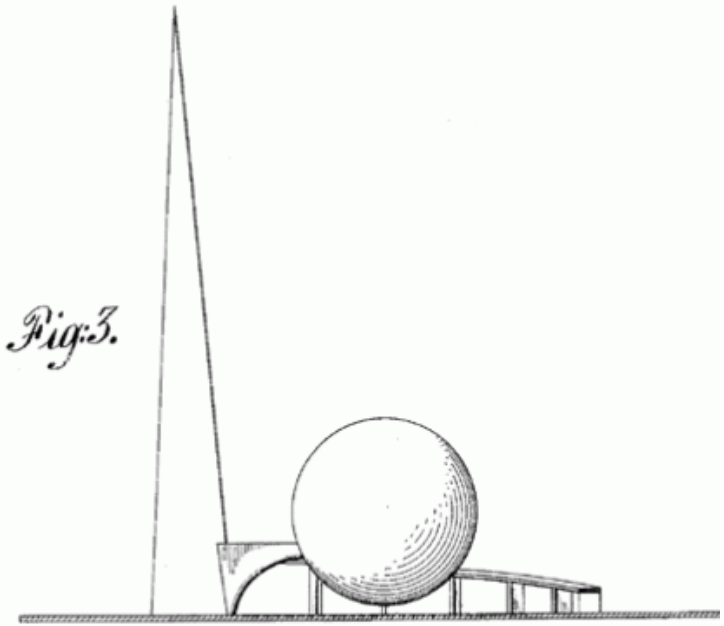


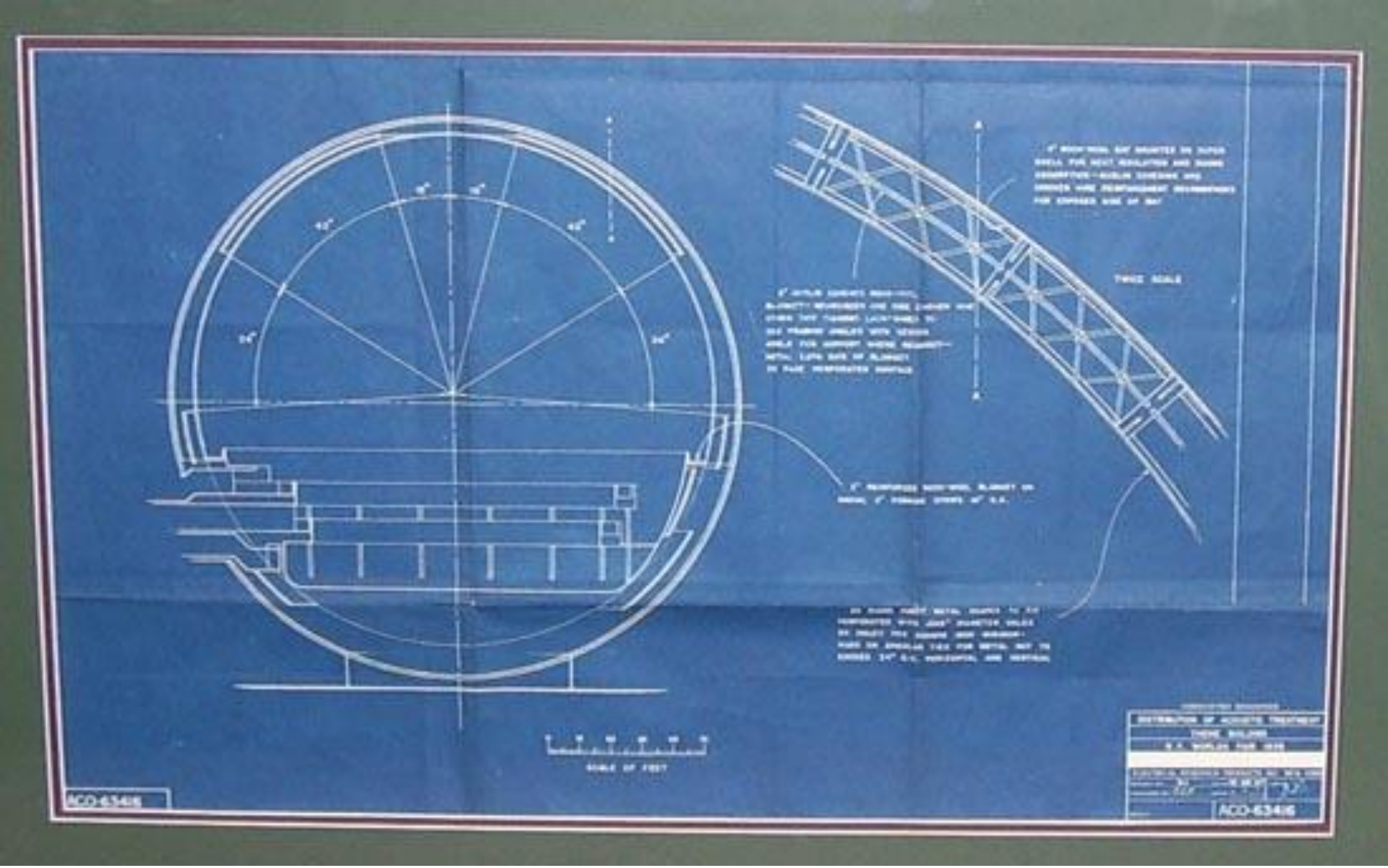
Fig:2.

Fig:4.

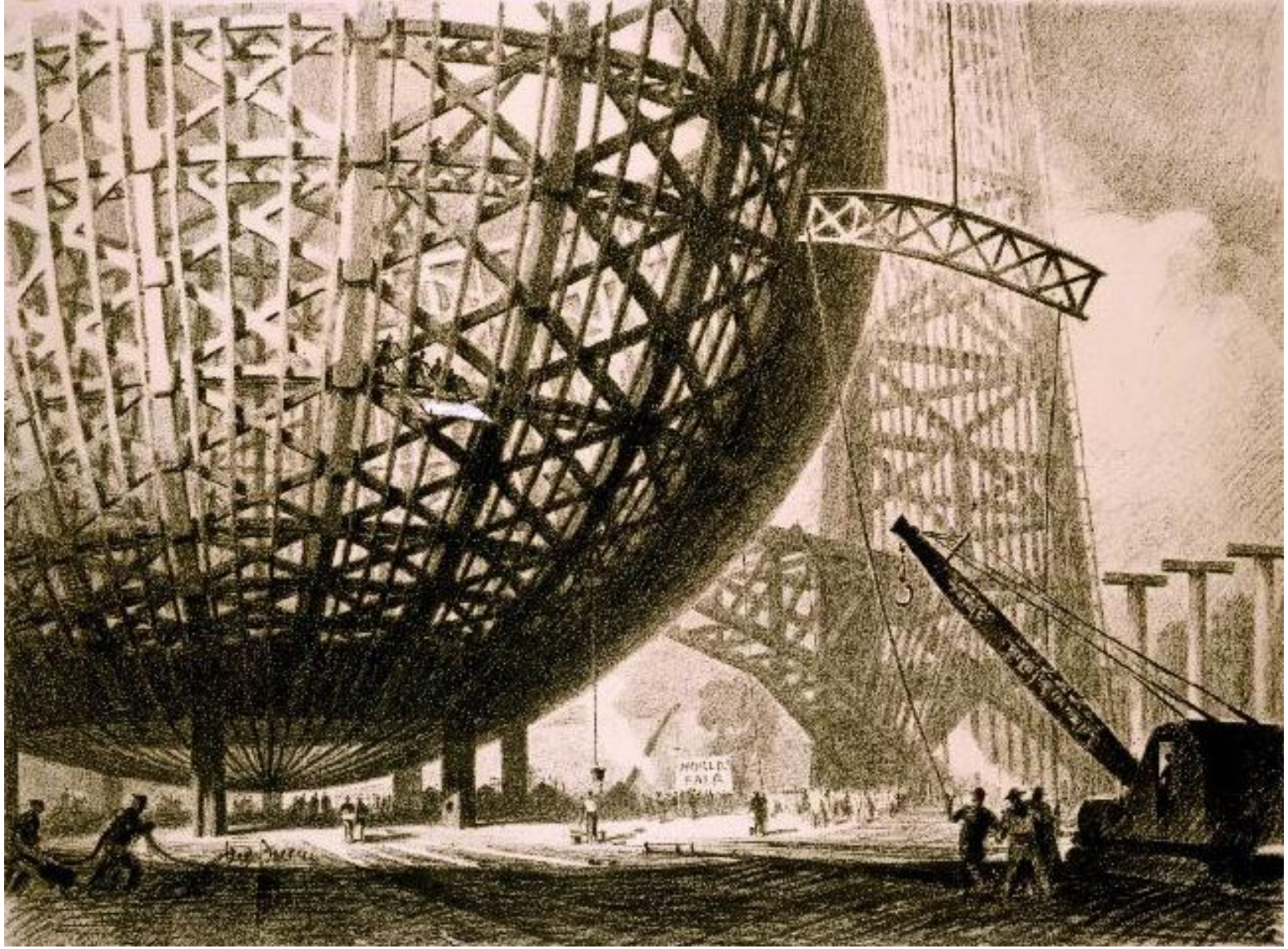
INVENTORS
WALLACE K. HARRISON
J. ANDRE FOUILHOUX
BY William J. Barnes
ATTORNEY



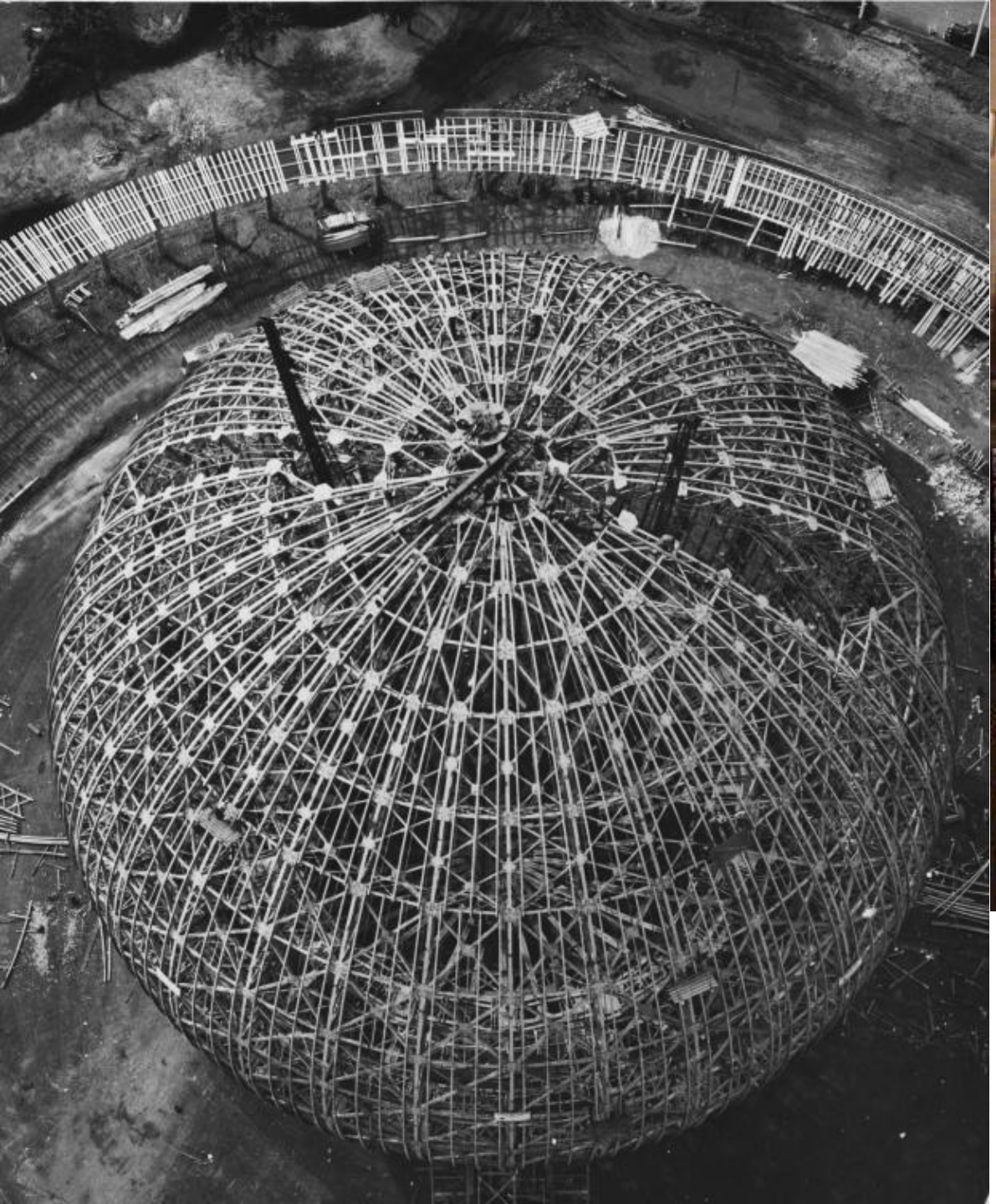
Trylon and Perisphere
Patent Drawings

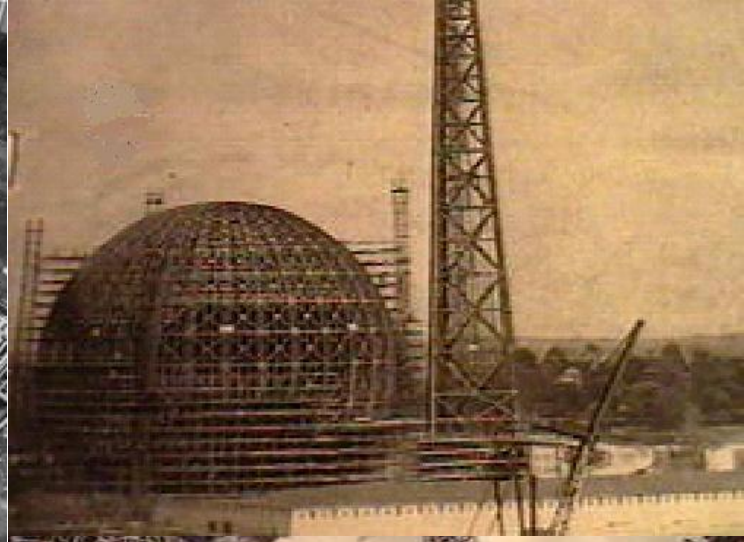


Original Engineering Drawing
(Perisphere)



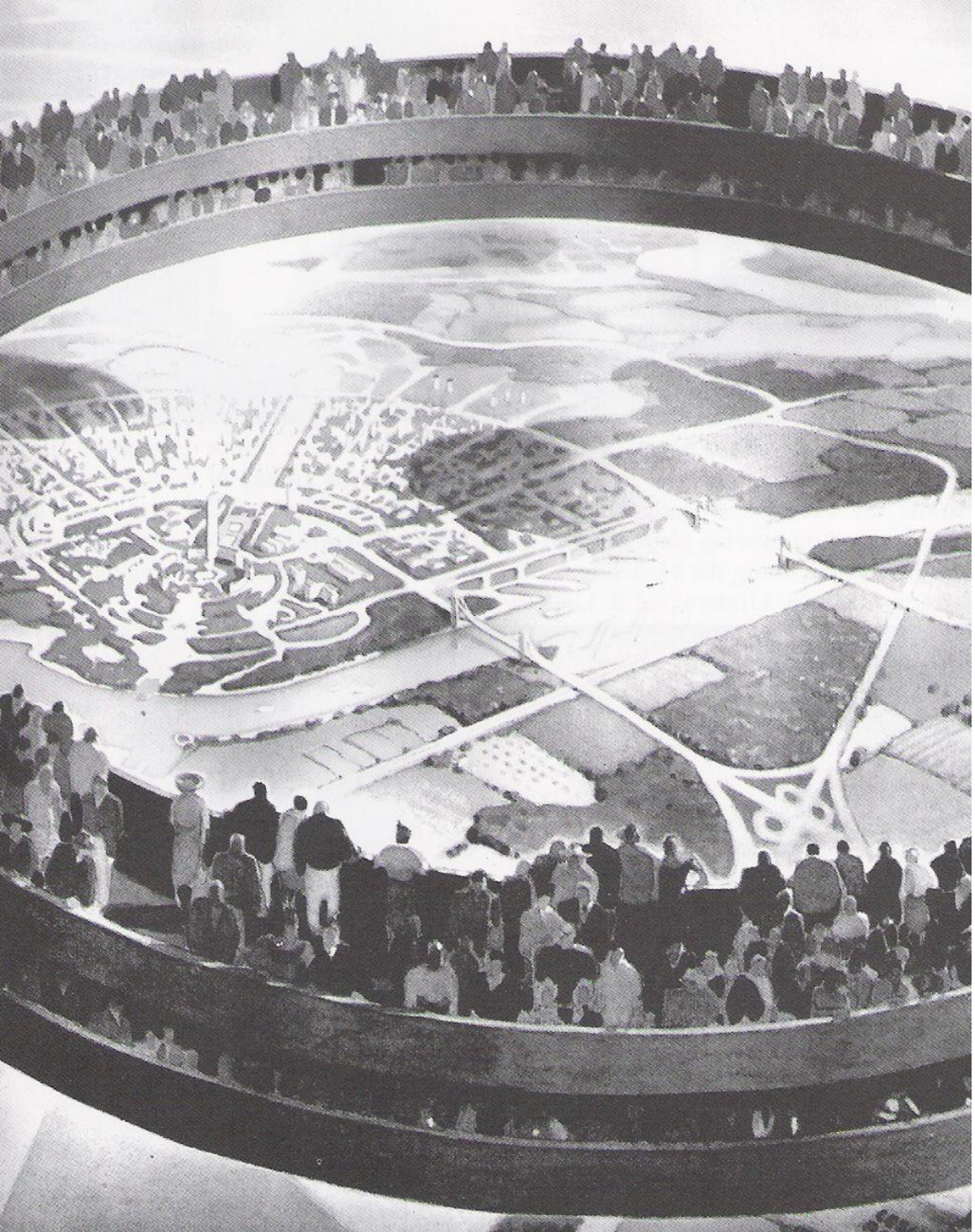
“Construction of Trylon and Perisphere”
by artist Hugh Ferriss
ca. 1938



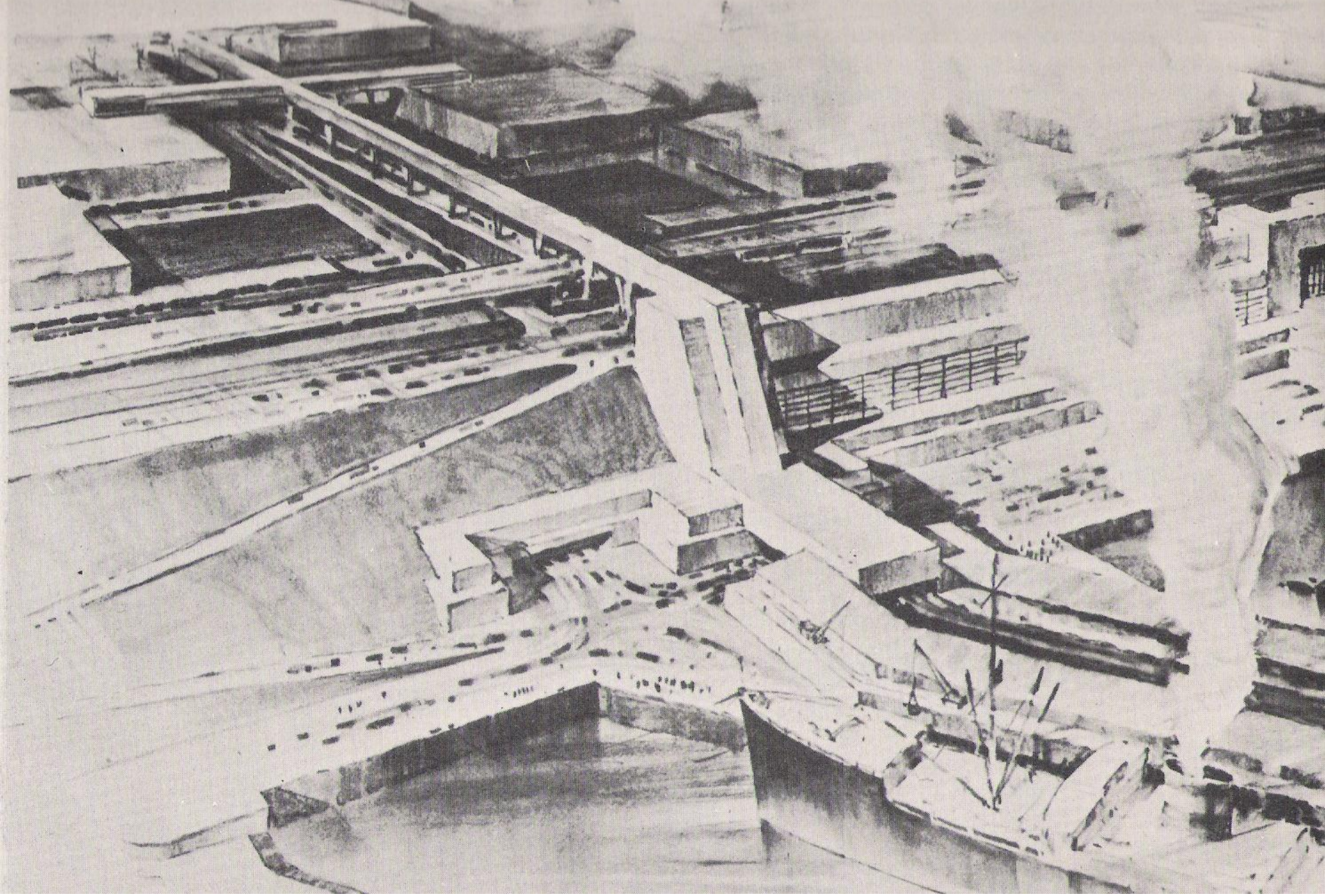


Under Construction

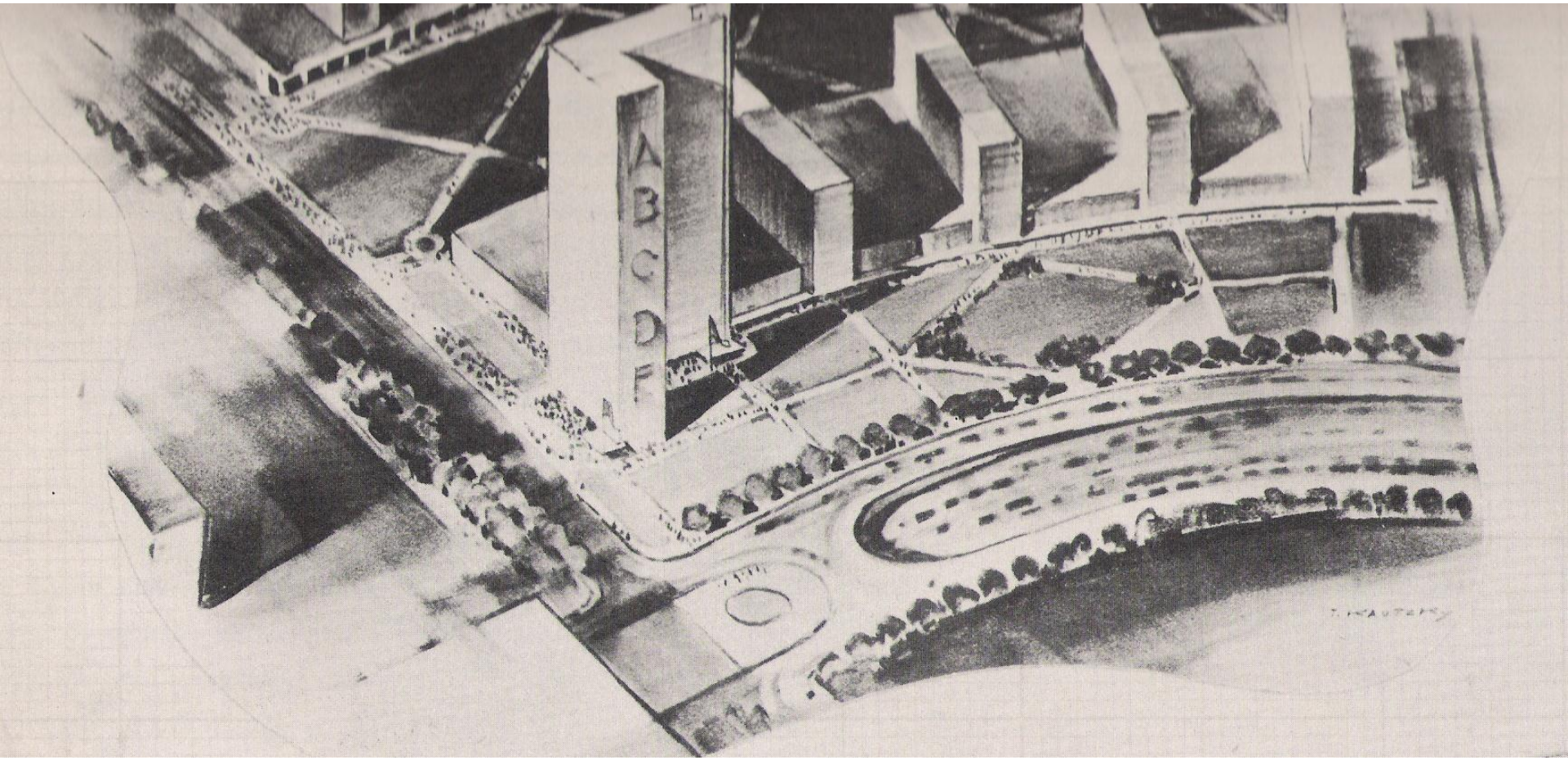
ca. 1938



Democracity **was the feature exhibit within the *Perisphere*. The moving platform allowed fairgoers to view the "City of Tomorrow." Based largely on Ebenezer Howard's concept of a "Garden City", *Centeron* was the cultural, educational and corporate center. Around this central city were *Millvilles* – for industrial activity, and *Pleasantvilles* – residential communities not to exceed 10,000.**



“Shipping Segment” of *Democracity*



Commercial Buildings in *Centeron*

"Even from the elevated station I could see the famous Trylon and Perisphere. They were white in the sun, white spire, white globe, they went together, they belonged together as some sort of partnership in my head. I didn't know what they stood for, it was all very vague in my mind, but to see them, after having seen pictures and posters and buttons of them for so long, made me incredibly happy. I felt like jumping up and down, I felt myself trembling with joy. I thought of them as friends of mine."

E.L. Doctorow


IN 1939
THE
NEW YORK WORLD'S FAIR

The 1889 Paris Exposition had established the tradition of a "Centerpiece" for a major exposition. Before and after the 1939/40 New York World's Fair, there were a wide variety of centerpieces, but none had captured the imagination of the public as did the Trylon and Perisphere, they seemed to capture the very essence and purpose of the fair which was held at a time of both great despair and hope for a better tomorrow. By the end of the 1939 season, war clouds had gathered and by the time the 1940 season opened (in April), many countries present the previous season no longer existed. For the next generation, a world's fair celebrating peaceful coexistence; held in the same location and with a centerpiece planned for the very same spot which the Trylon and Perisphere occupied, it would be a tough act to follow.

Ferris Wheel
Columbian Exposition
Chicago 1893

Sky Ride
Century of Progress
Chicago 1933

Tower of the Sun
Golden Gate Int'l. Exposition
(held on Treasure Island)
San Francisco 1939/40

Arch
Universal Exposition
Rome 1942

Space Needle

Century 21 Exposition

Seattle 1962

Buckminster Fuller's Geodesic Dome (U.S. Pavilion)

Expo '67

Montreal Canada

Part 3

The World of Already

The Valley of Ashes

The 1,255 acre *Flushing Meadows-Corona Park* – site of the 1939/40 and 1964/65 New York World's Fair/s, was originally a vast swamp with a freshwater creek running through the heart of it. Attracted by its fertile soil and rich salt marshes, European's settled the area in the 17th Century. By the turn of the 20th Century, the Flushing Meadow remained unspoiled despite the development that was going on all around it. A developer named *Michael Degnon* – builder of a large industrial park in nearby Long Island City, devised an ambitious plan (in 1907) to construct another large industrial park in the Flushing Meadow linked to a great port along the Flushing Bay and Creek. He began purchasing land and contracted with the *NYC Dept. of Sanitation* and the *Brooklyn Rapid Transit Co.* for the removal of ashes, street sweepings and excavated material to the site, thus it became known as the *Corona Dump*. NY State authorized the dredging of Flushing Creek/Bay in 1913 and soil from the dredging operations was also used as fill for the site. By 1916, 600-acres had been filled-in. With America's entry into WWI (in April 1917), all plans were put on hold for the duration of the war.

Topographical Map (1898)
(Flushing Creek at right)

"About half way between West Egg and New York the motor road hastily joins the railroad and runs beside it for a quarter of a mile, so as to shrink away from a certain desolate area of land. This is the valley of ashes, a fantastic farm where ashes grow like wheat into ridges and hills and grotesque gardens; where ashes take the form of houses and chimneys and rising smoke and, finally, with a transcendent effort, of men who move dimly and already crumbling through the powdery air."

RE: excerpt from *The Great Gatsby* by F. Scott Fitzgerald. To get to their Gold Coast estates, the wealthy elite had to pass through the Flushing Meadow ash dump (a.k.a. "Mount Corona"). Fitzgerald used the dump as a symbol for industrial society's decay and the wastefulness of the leisure class.

“The Valley of Ashes”

“Mount Corona”
ca. 1933

The Flushing Meadow and creek (center)
Flushing Bay (center-right)
ca. 1933

"Occasionally a line of gray cars crawls along an invisible tack, gives out a ghastly creak and comes to rest, and immediately the ash-grey men swarm up with leaden spades and stir up an impenetrable cloud, which screens their obscure operations from your sight . . . The valley of ashes is bounded on one side by a small foul river, and, when the drawbridge is up to let barges through, the passengers on waiting trains can stare at the dismal scene for as long as half an hour."

RE: excerpt from *The Great Gatsby*

After the armistice in 1918, the impetus for the industrial development of the Flushing Meadow was lost, but not its use as a dump. In January 1934, *Fiorello H. LaGuardia* became the 99th Mayor of NYC. He appointed progressive *Robert Moses* commissioner of a consolidated NYC Parks Department. Moses was a visionary who had, as far back as the 1920s, envisioned the Flushing Meadow as part of a vast greenbelt stretching across Queens to Nassau County. Unfortunately for Moses, the cost of land acquisitions and improvements was beyond the financial means of depression-era NYC. When *George McAneny* – bank president and president of the *City Club* proposed (in 1935) that an international fair be held in NYC, Moses saw his chance to create a grand park and greenbelt. NYC would acquire the land and lease it to the Fair Corporation. The Fair Corp. (through the sale of bonds) would then raise the funds necessary to convert the dump and surrounding swamp into the World's Fair site. A percentage of the fair's anticipated profits would go towards the creation of the new parkland which NYC would inherit after the fair concluded.

Flushing Meadows Park

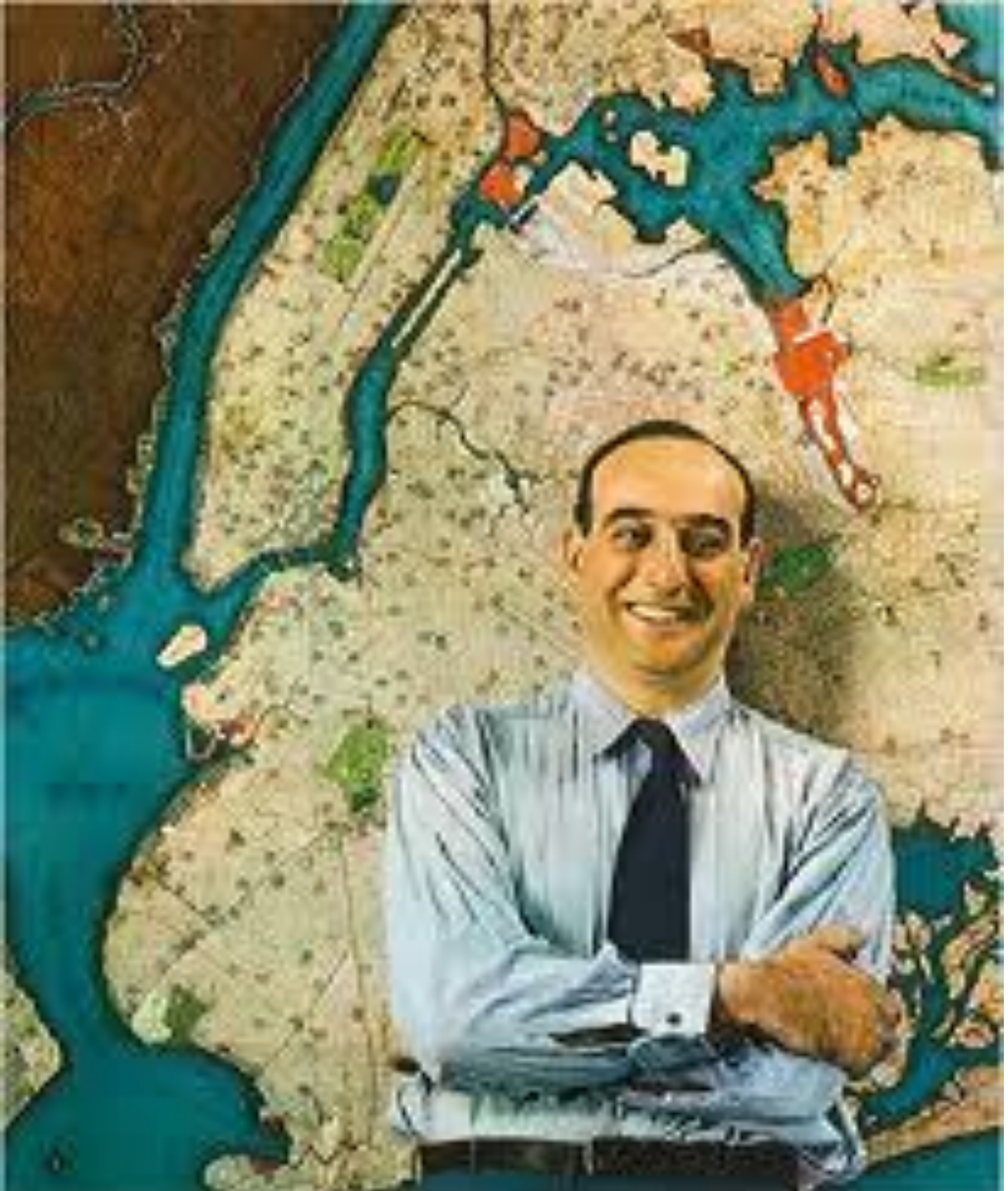
(with the outline of the 1939/40 NYWF superimposed)

1934

By the end of 1935, the Fair Corp. was formed and the Flushing Meadow chosen as the fair's site. NYC purchased the land and installed the infrastructure required for the temporary fair and permanent park. The irregular terrain was graded, utility lines installed and thousands of trees were planted. A new, complex drainage system placed a branch of the Flushing Creek into a large conduit forming two lakes (at right). Prominent landscape architect *Gilmore D. Clarke* created the landscape design for the 1939/40 New York World's Fair.

"The new Grand Central Parkway had to run through this wasteland, in which were buried thirty years of the offscourings, tin cans, cast-off baby carriages and umbrellas of Brooklyn. It seemed for a while as if the best we could do would be to obtain a reasonably wide ribbon, fill in part of the meadow and cut through the middle of the dump, leaving two great mountains of refuse which we fondly hoped to cover with a thin layer of topsoil and to plant, at a price which would not subject us to indictment. We studied every possible means of acquiring the whole meadow, but this dream seemed too big for the vision and means of the City in the face of competition of so many other urgent enterprises. Then the miracle happened -- the idea of a World's Fair. It was not, as is usually the case, a concept of those who have taken the credit for it. It was merely a gleam in the eyes of two quiet, unheralded and comparatively uninfluential gentlemen who met casually in a tavern in Kew Gardens, whose thoughts were put into words by a young girl in high school, the daughter of one of them. It was Joseph Shadgen, a Belgian engineer, whose young daughter acted as a sort of interpreter and public relations agent for him. The other was Colonel Edward Roosevelt, a relative of the Hudson River Roosevelts, who had lived for a long time in France and had worked in many parts of the world. These two men and the little Shadgen girl, between and among them, hashed up the idea of a World's Fair at Flushing Meadow, and they sold it to George McAneny, a bewhiskered leading citizen, who in turn sold it to me to sell to Mayor LaGuardia…"

Robert Moses



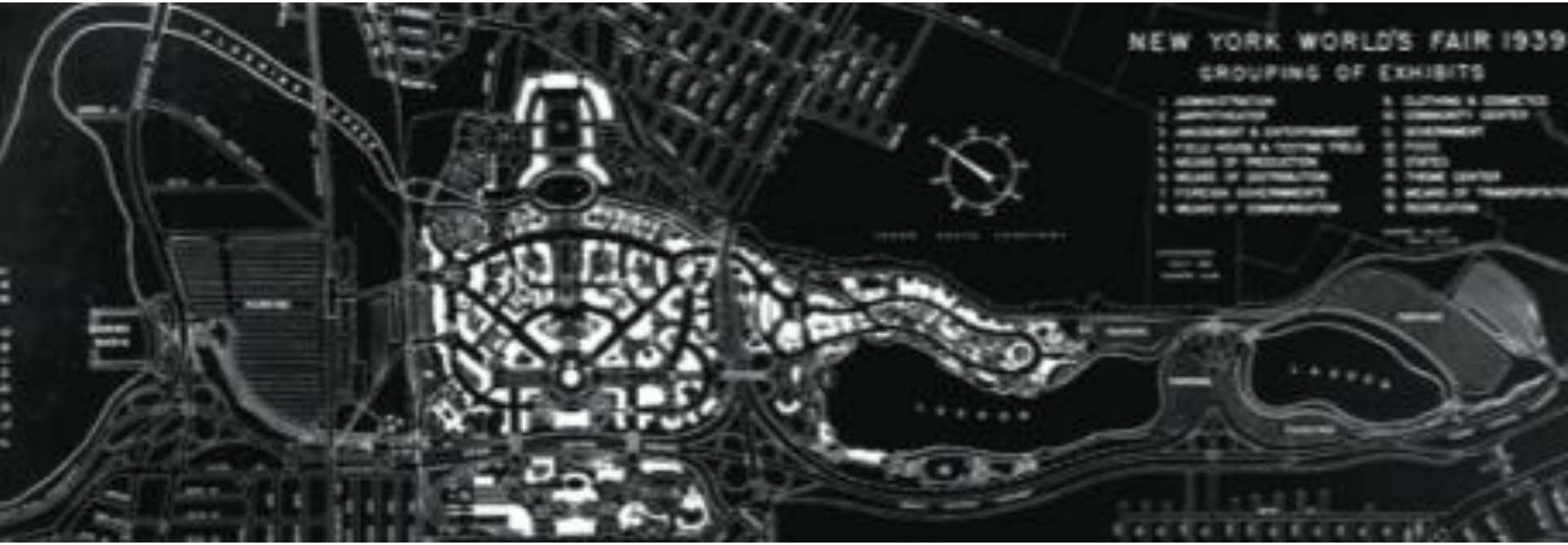
Robert Moses
Map of NYC
w/Flushing Meadow
in orange (upper right)
ca. 1935

"…I told Mr. McAneny that I would stop at nothing to help him and Grover Whelan, who became President, if the Fair were actually to be in Flushing Meadow, and if from the beginning the project was planned so as to insure a great park in the geographical and population center of the City. The first World's Fair blossomed, received official, public and financial approval, and we got the project under way with a complicated program of basic improvements, financed with City, State, and Fair money, and directed by a distinguished committee. We drove what appeared to be a tough bargain with the Fair, based on division of ultimate profits. Flushing Meadow Park was to receive a total of $4,000,000. This proved to be wooden money because there was a deficit instead of a balance, and our source of future development funds simply evaporated…"

Robert Moses

"…Let me give a rough picture of the scope of this program. It began with the leveling of the great ash dump, filling a considerable part of the meadow, creation of two lakes north of the filled land, building of new approaches, boundary and intersecting traffic arteries, reclamation of the south shore of Flushing Bay, elimination of sewage pollution in the Bay by the construction of disposal plants with trunks leading to them, bulkheading and riprapping of the Bay front, construction of a permanent boat basin, building of permanent utilities for the park and temporary utilities for the Fair, manufacture of topsoil out of earth, peat moss and mulch, planting of large trees, grass and shrubs on the basis of the final landscape design, and an endless number of other basic improvements, not to speak of permanent buildings, such as the City Building, planned for ice and roller skating after the Fair, the State Amphitheater for swimming, concerts and shows when the Fair ended, and other structures. The total cost of these permanent improvements reached the staggering figure of $59,000,000."

Robert Moses



Plan for the 1939/40 New York World's Fair
(NYC Parks Department)

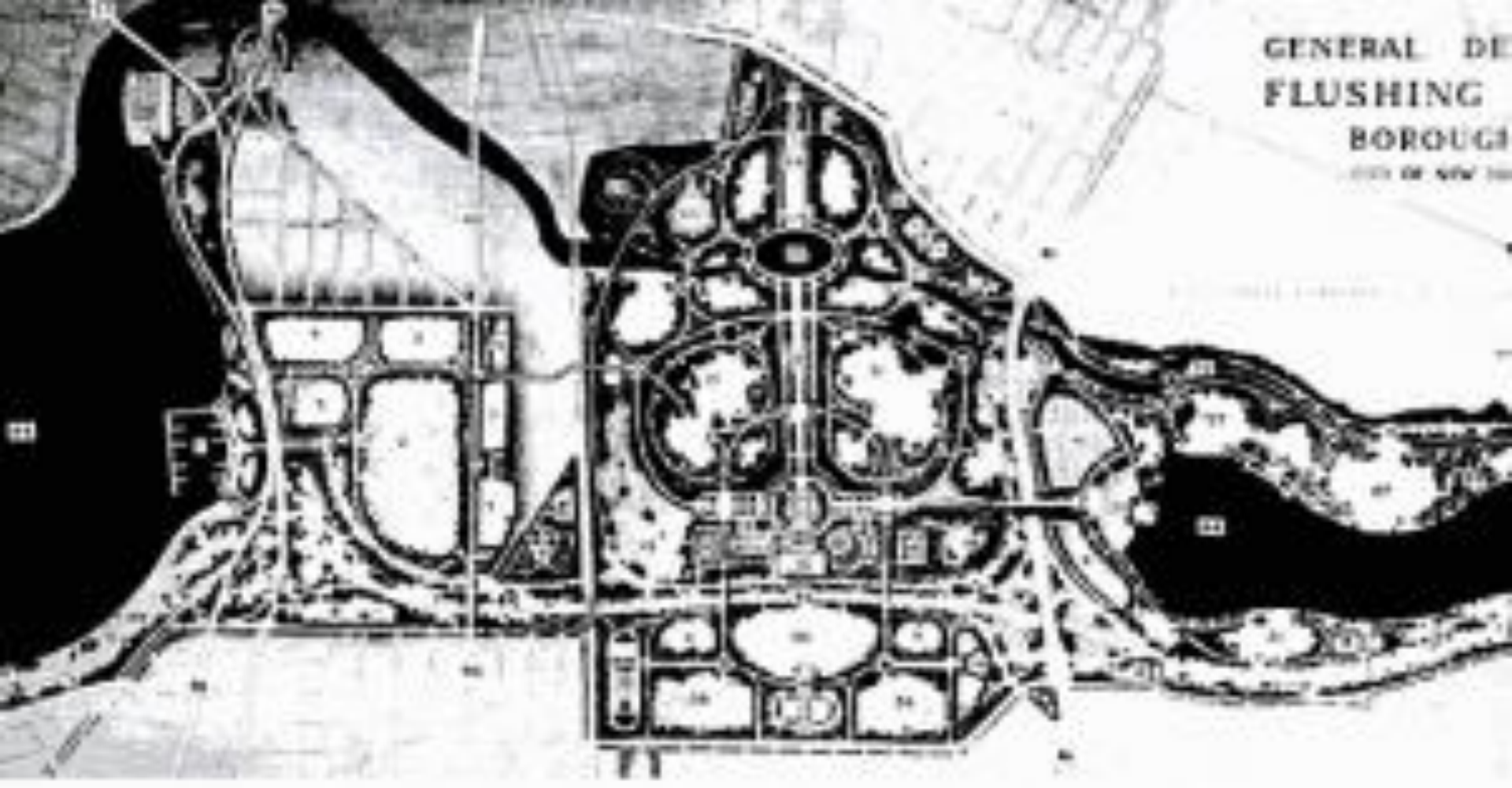
“The World of Tomorrow”

1939/40 NYWF at Flushing Meadow

(Trylon and Perisphere ‘Theme Center” at center-left)

"…Came the night when the New York World's Fair of 1939-1940 closed. One night late in the Fall they put out the blazing lights in The World of Tomorrow. The following morning the wrecking crews arrived. 44,931,681 visitors had attended World's Fair One. Soon old men and women were telling their grandchildren what the great Corona dump looked like in the days of F. Scott Fitzgerald, how big the rats were that ran out of it, what a volcano there was over on Riker's Island, and how it was all changed overnight."

Robert Moses



Early Development Plan of Flushing Meadows Park

"…Then in 1946 came the United Nations and the opportunity to convert a substantial part of Flushing Meadow into the World Capitol…but it was finally rejected in favor of a small site in Midtown Manhattan on the East River. Those of us who were connected with the Flushing Meadow Committee, however, kept on. The architects and engineers, led by Wallace K. Harrison, became identified with the new site and its approaches, and much of the preliminary work done to attract the United Nations to Flushing Meadow proved in the end to be valuable on the East River. At the same time it was agreed with Trygve Lie and his associates that the City Building at Flushing Meadow would be converted into an Assembly Hall for annual meetings of the United Nations from 1946 to 1950 until the new Capitol was completed. The U.N. occupancy gave us an opportunity to carry out a substantial part of the park program in the vicinity of the City Building once dominated by the Trylon and Perisphere..."

Robert Moses

Flushing Meadows Park

New York City Building pictured in inset (upper-right)

ca. 1946

Proposed World Capitol
Flushing Meadow Park
1946

The Old S.O.B. Does it Again

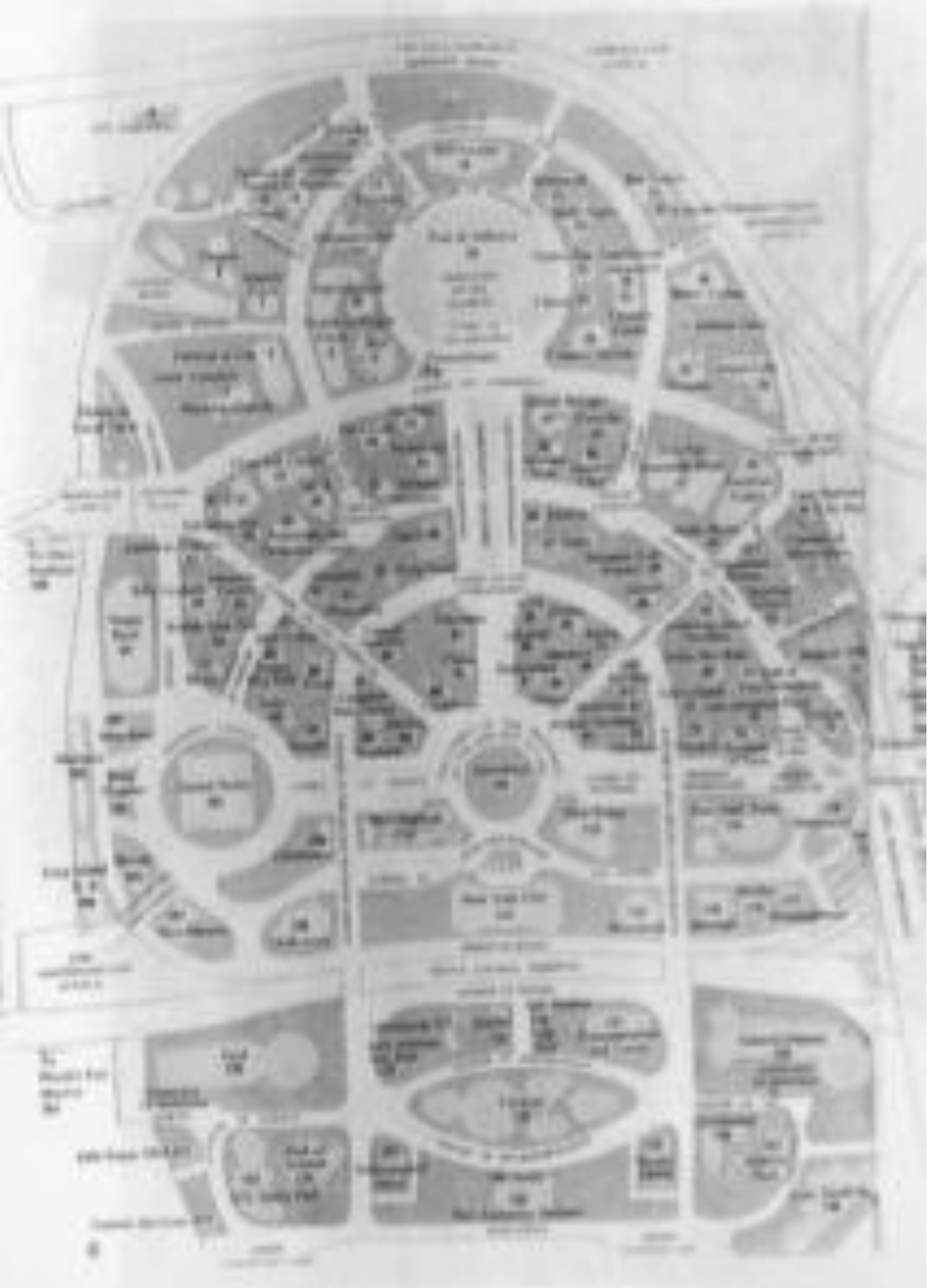
With fond memories from their childhood experiences at the 1939/40 NYWF, in 1959 a group of NYC businessmen wanted to offer the same experience to their children and grandchildren. A fair would also be very good for business. The new fair's organizers turned to NYC's "Master Builder" – Robert Moses, for help and guidance and made him head of the private corporation charged with building the new fair. Having ended in the red in 1940, Moses was unable to complete his plans for Flushing Meadow-Corona Park after the *World of Tomorrow* NYWF closed. He now saw an opportunity to complete the project that had consumed his mind for years; a 1,300 acre park located in the geographic center of NYC which would be his most ambitious public park project yet. Moses realized attendance of 70 million was needed to make the fair profitable; that required two, six-month seasons. This also meant the 1964/65 New York World's fair would be a *Universal Exposition* because of its shear size and volume of visitors anticipated. The *Saturday Evening Post* (in May 1964) commented regarding Moses' involvement in the '64/65 NYWF: *"The old S.O.B. does it again."*

The Promised Land

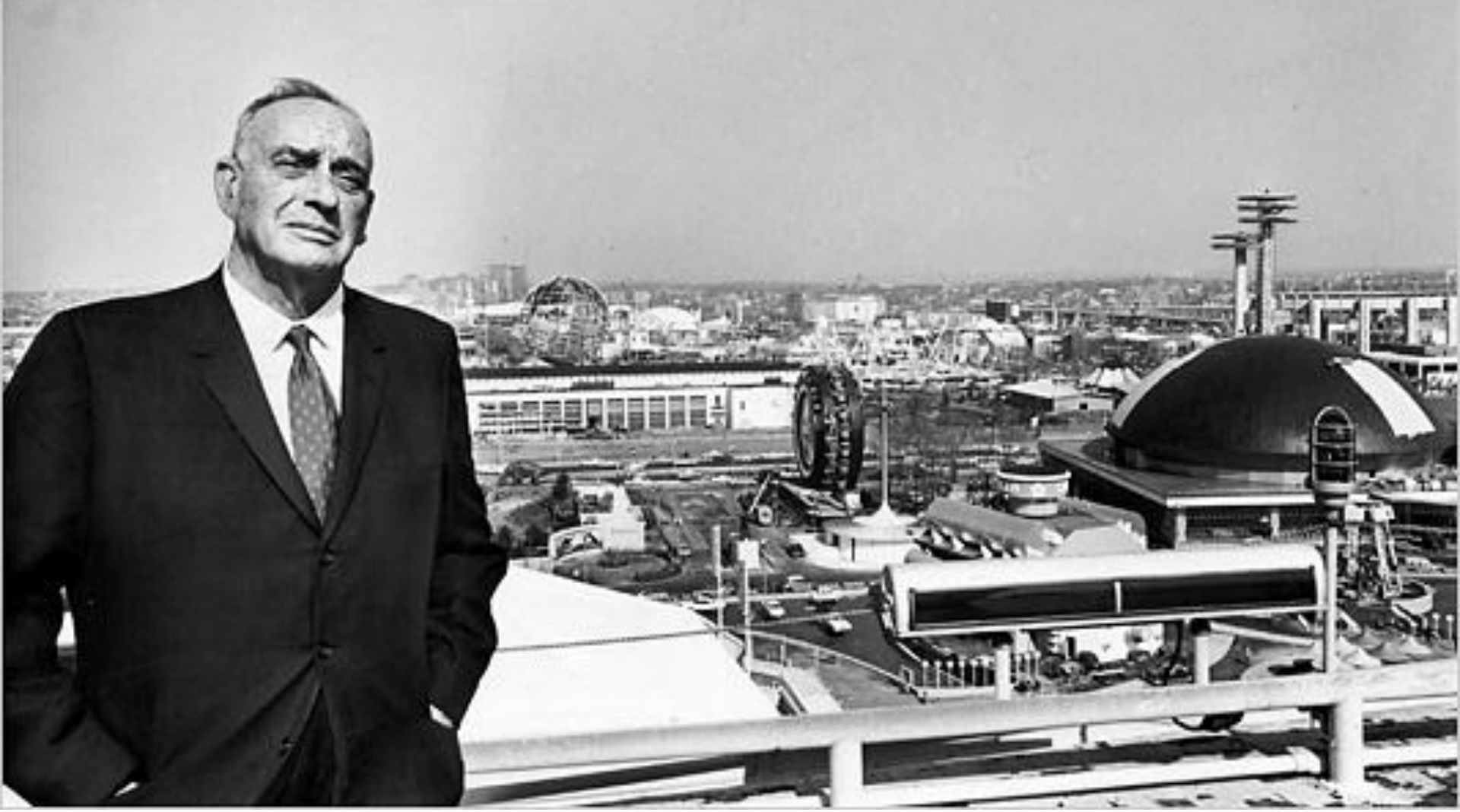
Whence, oh whence did the Fair appear?
Out of nowhere into the here.
Did it just spring up in a flash when bidden?
No, you can bet your life it didden.
How was the marsh grass changed to roses?
By a crusty magician, name of Moses…
He looked at a waste of mud and sand,
And Moses envisioned a Promised Land.
Then Moses he called upon the Lord,
And RCA and DuPont and Ford.
GE, he had a word with them,
As well as Chrysler and IBM,
And he lured to his fantastic island
Nations from Mexico to Thailand.
That's why you can murmur Oh and Ah
At Michelangelo's Pieta…
To gaze at the monstrous dinosaurs
From the era when Earth was embryonic;
They are genuine Audio-anamatronic…
Or should you prefer a mausoleum
You can spend one hour in the Wax Museum…
So fret not, parents, or tear your hair
And wonder why Johnnie's so long at the Fair.
And Johnnie, do not fume and foam
If your parents are late in getting home;
Nobody departs, until it closes,
From the Promised Land of Mr. Moses.
***The Promised Land of Mr. Moses* by Ogden Nash**

The BIE

The Paris-based international body that sanctions World's Fairs – the *Bureau International des Expositions* (BIE), set the rules for International Expositions. BIE rules stated that an exposition could run for only one, six-month period; not two. Also, Moses planned to charge exhibitors rent - also against BIE rules. To top it off, Montreal had been selected to host (in 1967) the one International Exposition allowed in a ten-year period: *Expo '67*. Moses traveled to Paris to argue his case and secure BIE approval. When the BIE balked at the application, Moses went to the Paris press and very publicly announced his dislike of the BIE and their rulebook. The BIE retaliated by requesting that member nations not participate in the 1964/65 NYWF. Thus, the NYWF of 1964/65 became the only 20th Century World's Fair to be held without formal BIE endorsement. Many member nations such as *Canada, Australia*, the *Soviet Union* and major European nations abided the BIE's request, but others such as *Spain, Austria* and *Greece* did not. In fact, most international participants came from third-world countries who saw the invitation to participate as a great opportunity.



Left – Site Plan of the 1964/65 NY World's Fair (Unisphere at center)
Above – Aerial view of the fair (looking south)

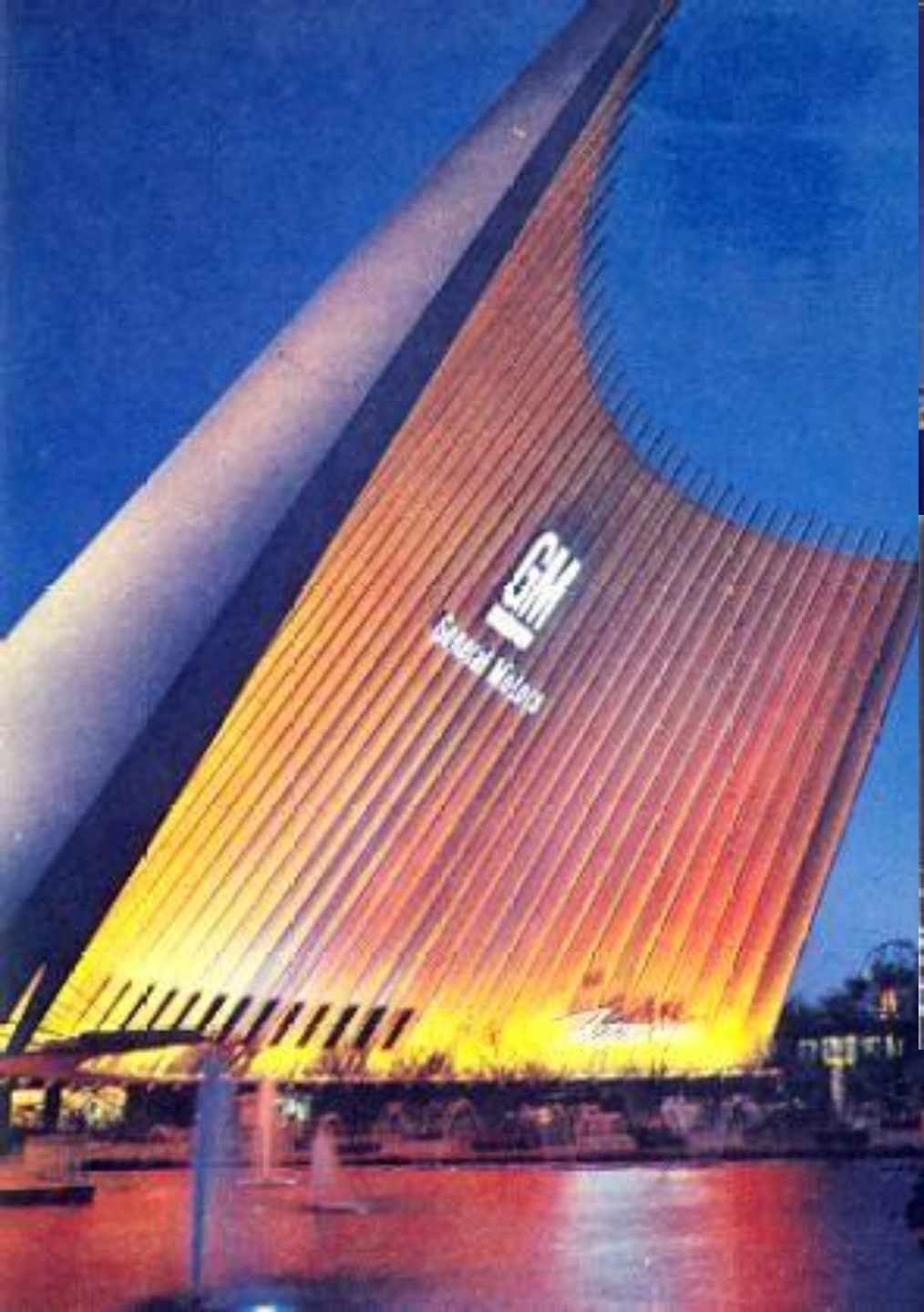


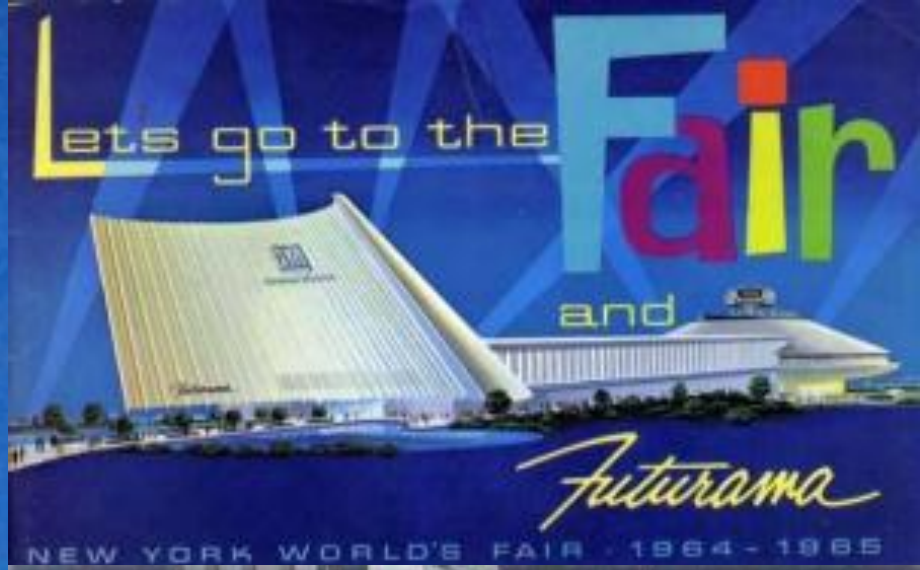
Moses retained Gilmore D. Clark to adapt the 1939 landscape plan to the new fair. Unlike the 1939/40 NYWF, the promise of a better future was not the focus in 1964. The 1964/65 NYWF was mainly a forum for exhibiting developing technology relevant to computers, nuclear energy and space flight. Those who had attended both fairs deridingly referred to the fair as: *The World of Already.*

Despite the BIE controversy, the fair attracted many nations, corporations, federal and state exhibitors. General Motors *Futurama* exhibit proved to be the most popular exhibit attracting 26 million visitors. DuPont, IBM and the Bell System all had popular exhibits but a surprise hit was a short film entitled: *To Be Alive!* It would go on to win an Academy Award (in 1966). The Vatican City Pavilion displayed Michelangelo's *La Pieta* (The Pity) and the culinary hit of the fair was the Belgian Village where fairgoer's could enjoy a *Belgian Waffle* served with strawberries and whipped cream. Controversy surrounded the City of Berlin and Jordanian pavilions and Walt Disney put *Audio-animatronics* on display at their *It's a Small World, Carousel of Progress, The Magic Skyway* and *Great Moments with Mr. Lincoln* exhibit/s. The Federal Government exhibit focused on President Johnson's *Great Society* program and was entitled: *Challenge to Greatness.* New York State's $6 million open-air pavilion: *Tent of Tomorrow* (designed by architect Philip Johnson), and a scale model "Diorama" of NYC (on display at the NYC Pavilion) proved very popular with fairgoers.

"The answers we seek will be found in the near tomorrow…Let us explore together the future. A future not of dreams but of reality. For much of what we are about to see is even now beyond the promise and well on its way to tomorrow's world."

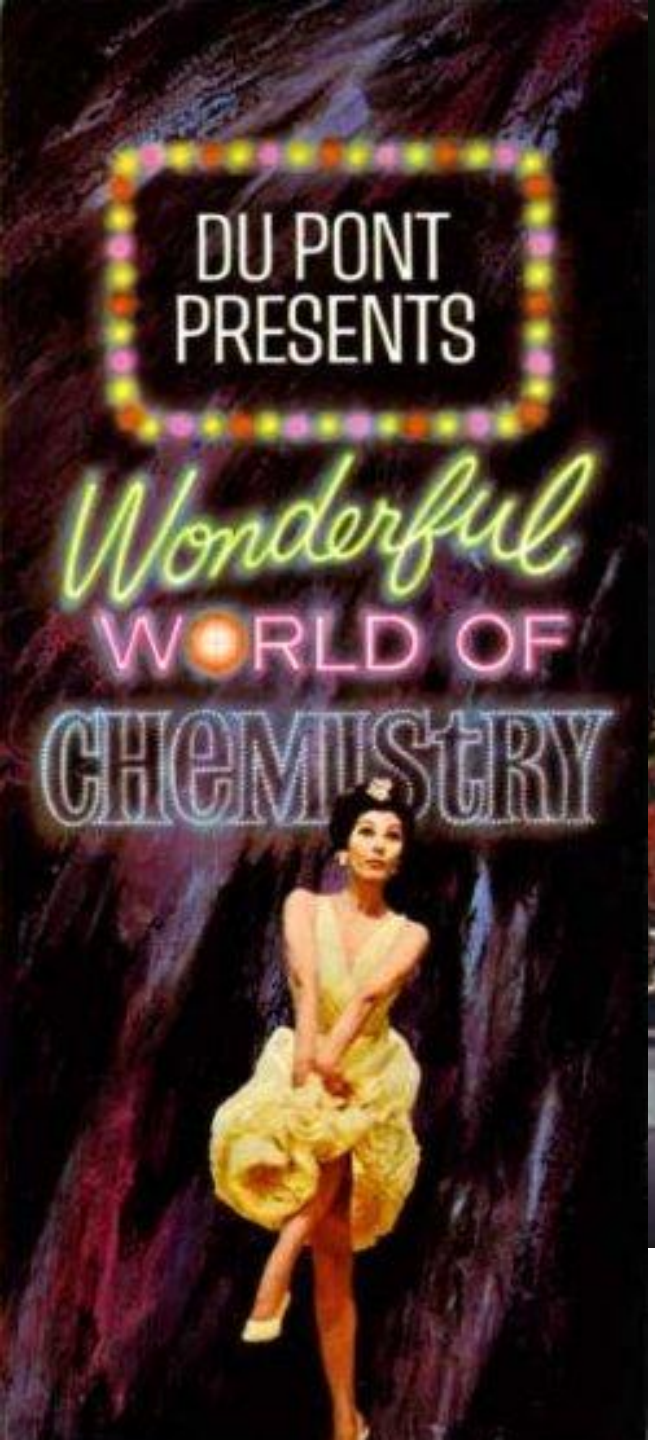
RE: narration from General Motors *Futurama*





General Motors Pavilion

Futurama Exhibit (within)

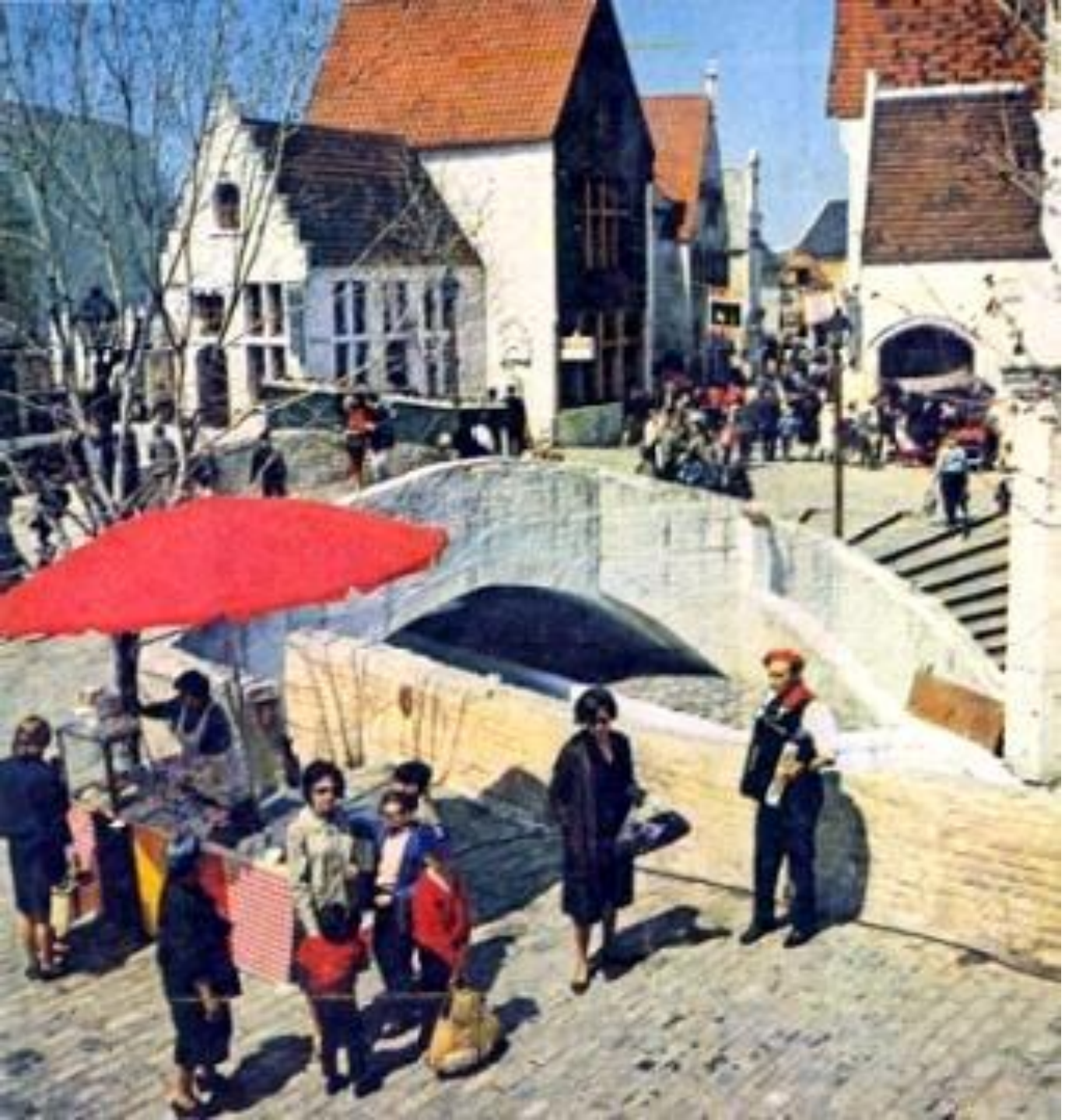


Du Pont Pavilion

IBM Pavilion
(Ovoid shaped)

The Bell System Pavilion

Vatican Pavilion (above)
***La Pieta* (left)**



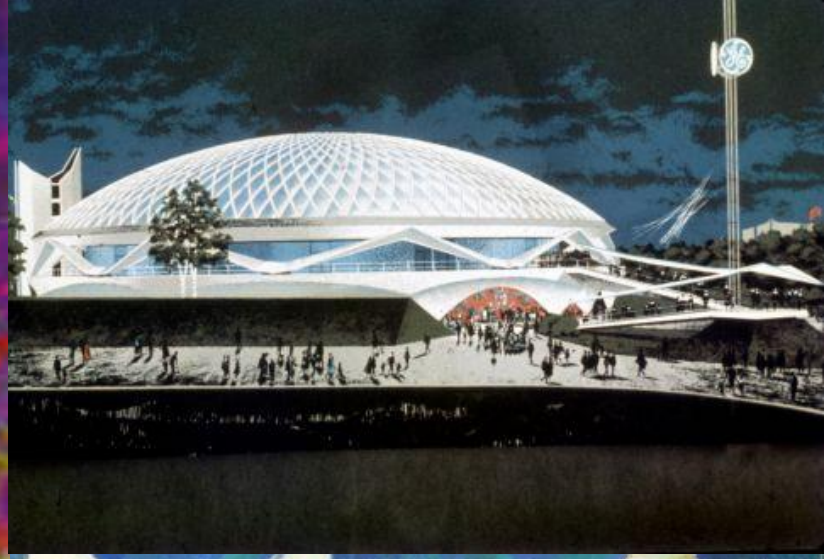
Belgian Village

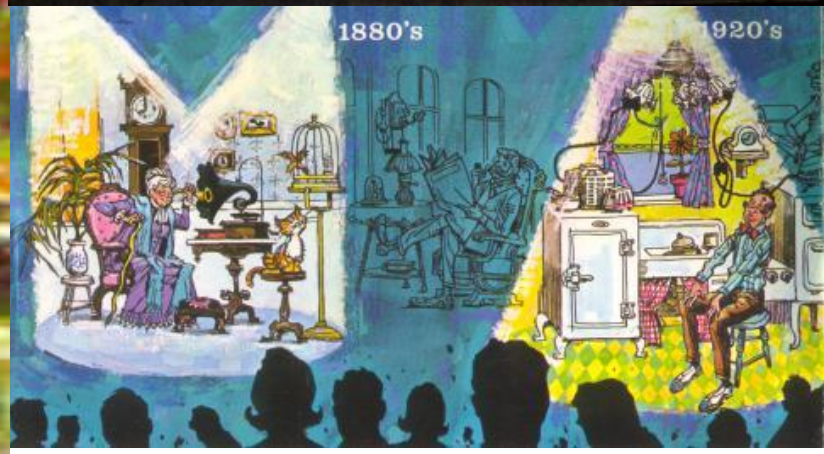
City of Berlin Pavilion

Jordan Pavilion

Pepsi-Cola Pavilion

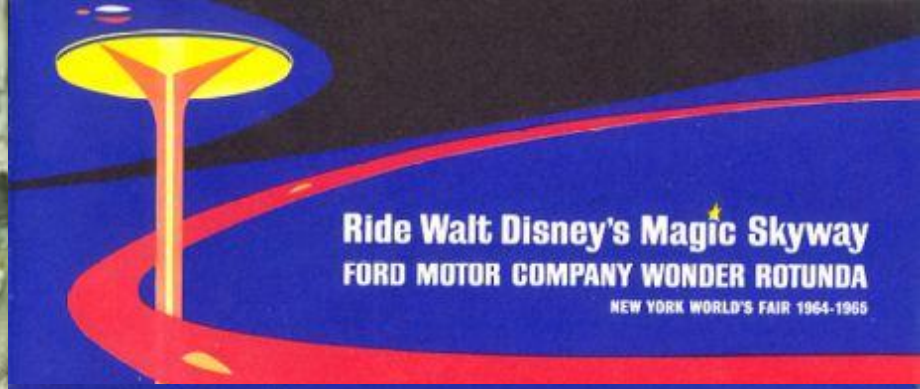
Disney's *It's a Small World Exhibit* (within)





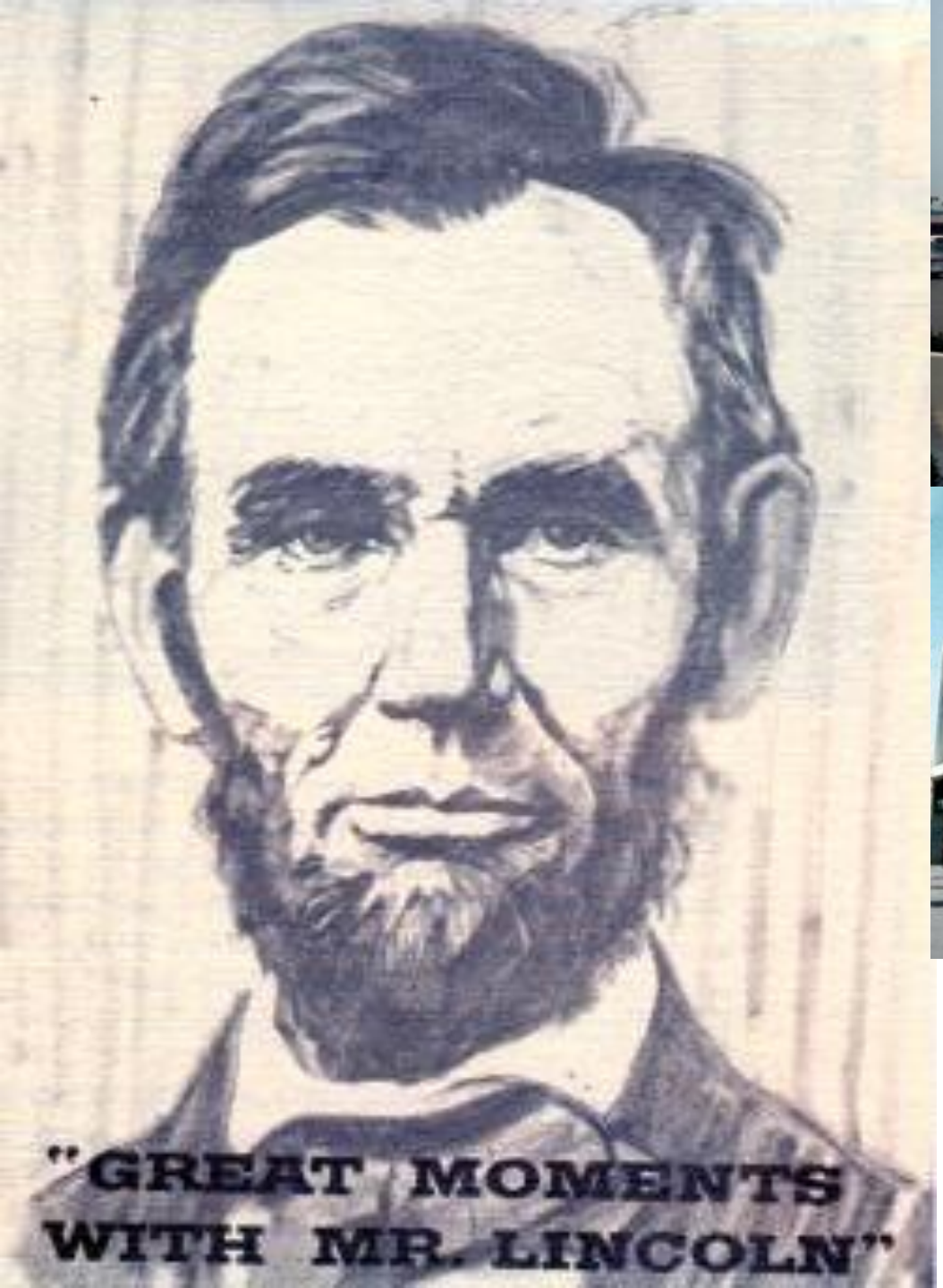
GE Pavilion

Disney's *Carousel of Progress* Exhibit (within)



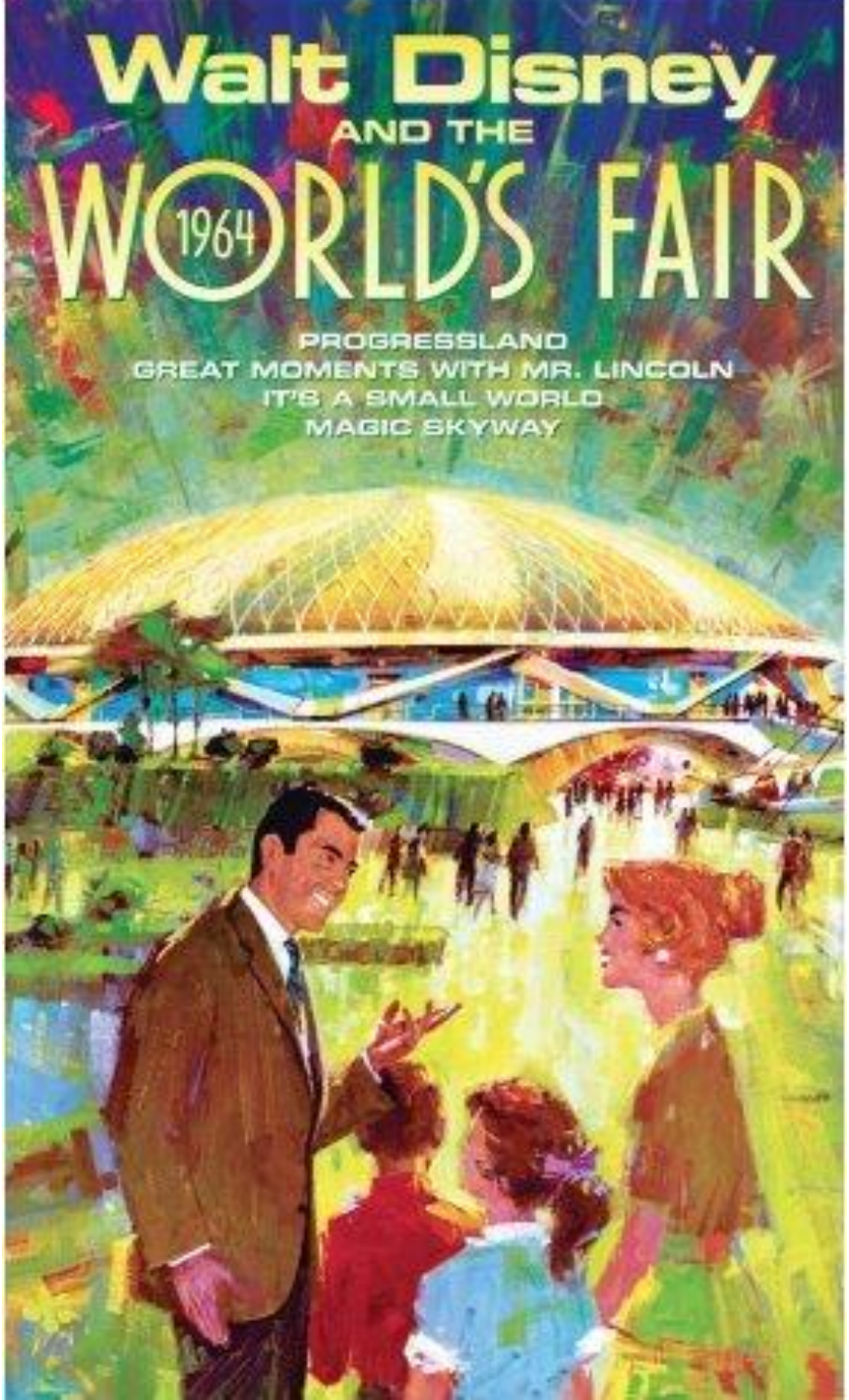
Ford Pavilion

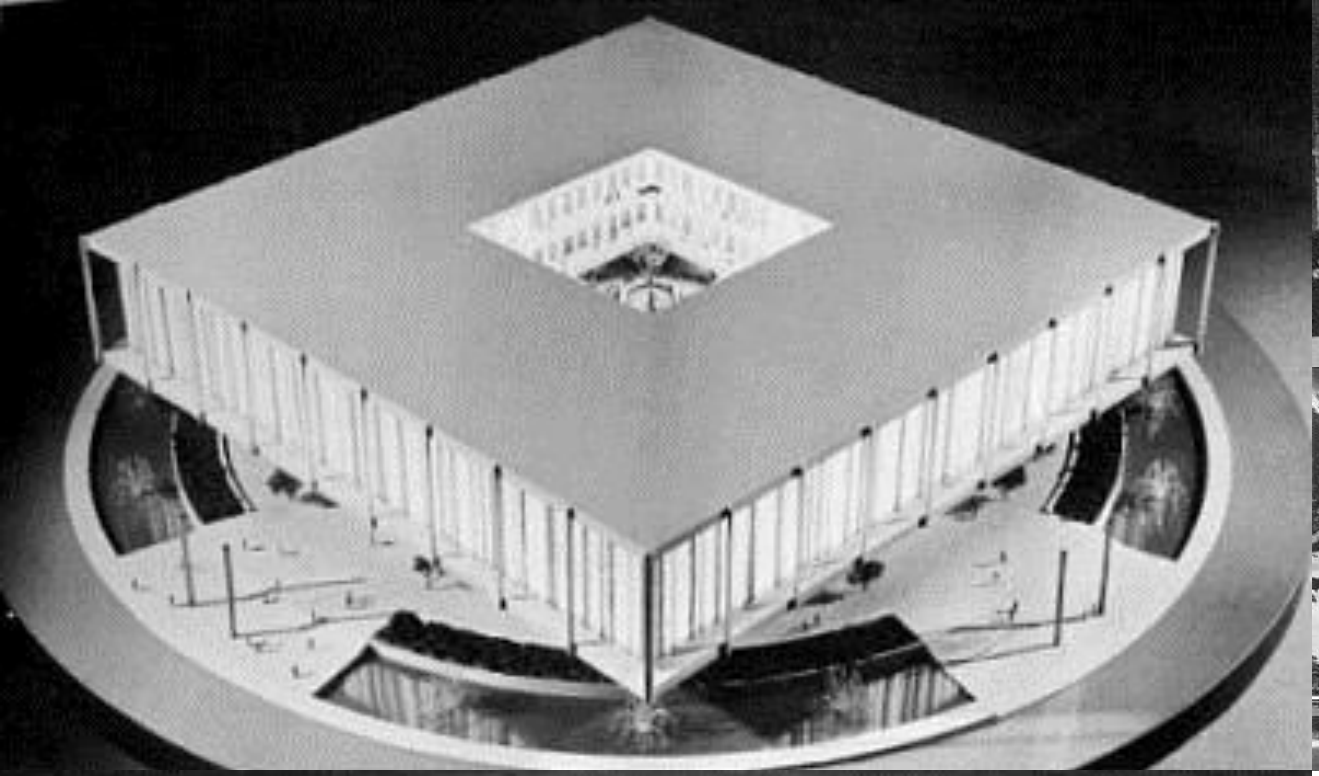
Disney's *Magic Skyway* Exhibit (within)



Illinois Pavilion

Disney's *Great Moments with Mr. Lincoln* Exhibit (within)


Walt Disney
AND THE
1964 WORLD'S FAIR
PROGRESSLAND
GREAT MOMENTS WITH MR. LINCOLN
IT'S A SMALL WORLD
MAGIC SKYWAY



Federal Pavilion

President Kennedy giving Ground-breaking speech – December 14th 1962 (above)

New York State Pavilion

“Tent of Tomorrow”

City of New York Pavilion (upper-left)
(NYC *Diorama* within)

Despite it not being an official (BIE endorsed) fair, in it's proportions (nearly a square mile) it truly was "Universal and International" in scale and ambition. However, many of the international exhibitors that did participate were not sponsored by their respective government/s but, rather, by tourism interests. If the international community was the weak link, at the opposite end was the participation of American corporations who embraced the fair from the get-go as a means of promoting and displaying their wares. This gave the fair a "commercial" atmosphere which was highly criticized. By the close of the 1964 season, only 24 million people had attended (27 million attended in 1965). At 51 million total, Robert Moses was well short of the required 70 million to turn a profit. It was a fair planned in the late 1950s, built in the early 1960s and held in the mid-1960s, but the world had changed much in the intervening years. The architecture of the fair was deemed "Populux" – futuristic shapes echoing a "space age" optimism that was not founded in the everyday lives of fairgoers. The emphasis was on technology solving all the world's problems. It could not.

Artist W. D. Shaw's interpretation of the Fair showing some of the pavilions in the central exhibition area.

Come to the Fair and see the world!

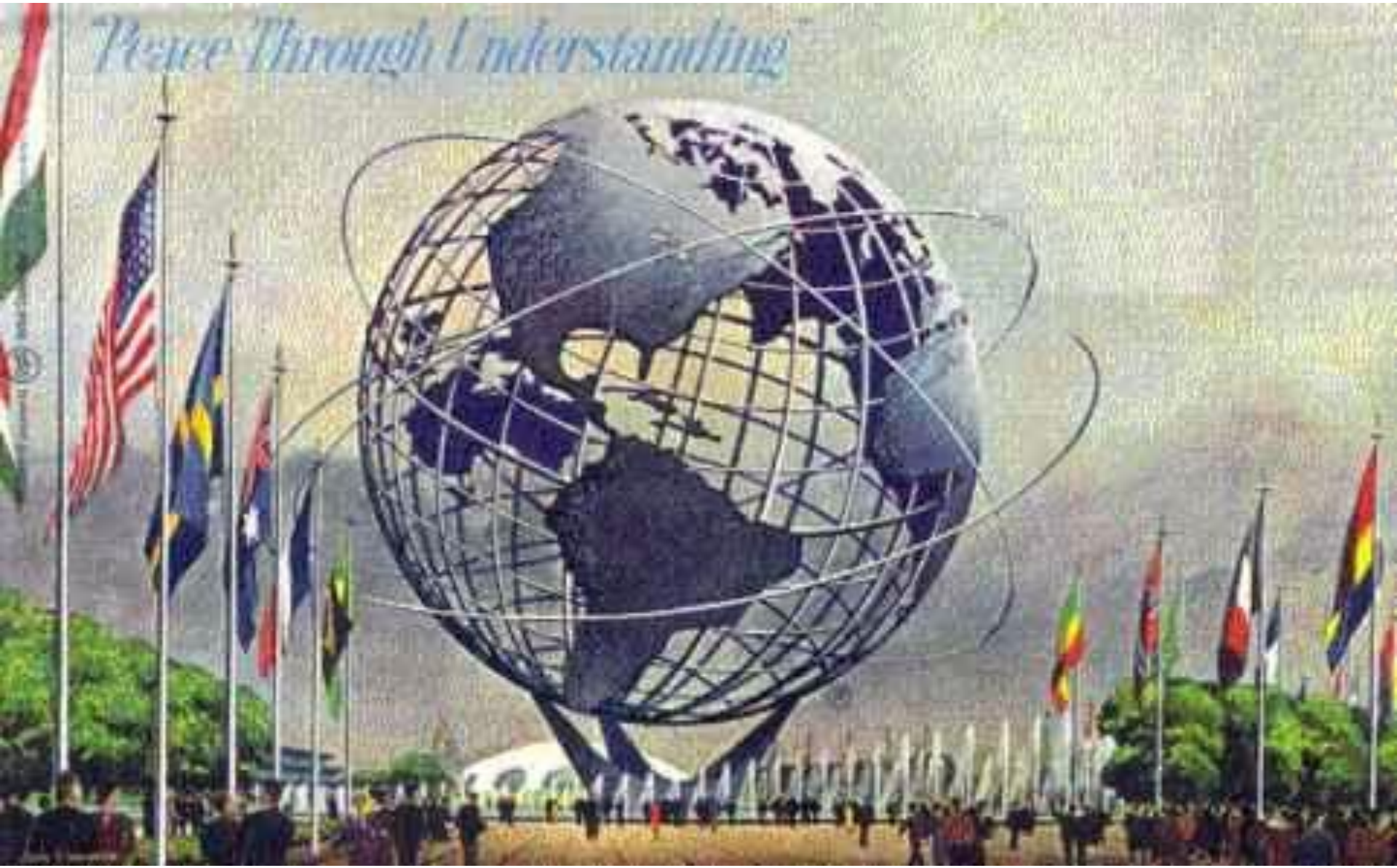
Under the symbol of the Unisphere, exhibits from all parts of the world will be gathered for your delight! You'll visit gleaming pavilions . . . wander through exotic temples and serene gardens . . . tour towering fantasies of glass and steel. You'll stroll picturesque promenades . . . view colorful fountains . . . sample foods from every corner of the globe. You'll wonder at predictions of things to come . . . gaze at re-creations of things past. You'll see water shows . . . theater productions . . . circuses . . . sports events . . . fireworks . . . symphonies and brass bands. In this Olympics of Progress you will truly see the best from all the world.

RE: excerpt from a pre-fair publicity pamphlet

Peace Through Understanding

In 1961, the fair corporation announced that the theme of the fair would be: "*Peace Through Understanding on a Shrinking Globe in an Expanding Universe"* and the fair was often referred to as an "Olympics of Progress." Despite all this high-mindedness, the fair ended on a sour note. Allegations of financial mismanagement and the decline of Robert Moses' popularity and the 1964/65 NYWF seemed to coincide; the local press was unkind to both. It did not help that the fair nearly went bankrupt and the press' disclosure of Moses' $1 million salary as World's Fair Corporation President. The fair lost money and it was completely demolished within six-months of closing in October 1965. Some of the pavilions and exhibits lived on such as Disney's *It's a Small World After All* (moved to *Disneyworld*) and the *Austrian Pavilion* became a ski lodge in western NY State. The NYS Pavilion remains but is neglected and the Port Authority's Heliport was transformed into a catering hall named *Terrace on the Park*. However, the very symbol of *"A Shrinking Globe in an Expanding Universe"* – the theme center and centerpiece of the fair: *Unisphere*, would not share such an inglorious fate.

Port of New York Authority *Heliport*
(present day *Terrace on the Park*)


Peace Through Understanding

Tennis Anyone?

In 1977, the *United States Tennis Association* (USTA) moved the *U.S. Open* tennis tournament from nearby Forest Hills to a facility in Flushing Meadows-Corona Park. In the 1990s, USTA moved to an even larger facility (adjoining) – *The Arthur Ashe Tennis Stadium.* The *City of New York Building* (a.k.a. *New York City Building*) which served both the 1939/40 and 1964/65 New York World's Fair/s remains and now serves as the *Queens Museum of Art* (the New York City *Diorama* is still on display there). It was the world's first "Billion Dollar Fair" and for those who attended, the New York World's Fair of 1964 and 1965 is a distant but fond memory.

Flushing Meadows-Corona Park (looking north)

T/B: Flushing Bay/Shea Stadium/Tennis Stadiums/Unisphere

ca. 1999

Part 4

An Original Idea

"I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the Earth"

President John F. Kennedy – May 25th 1961

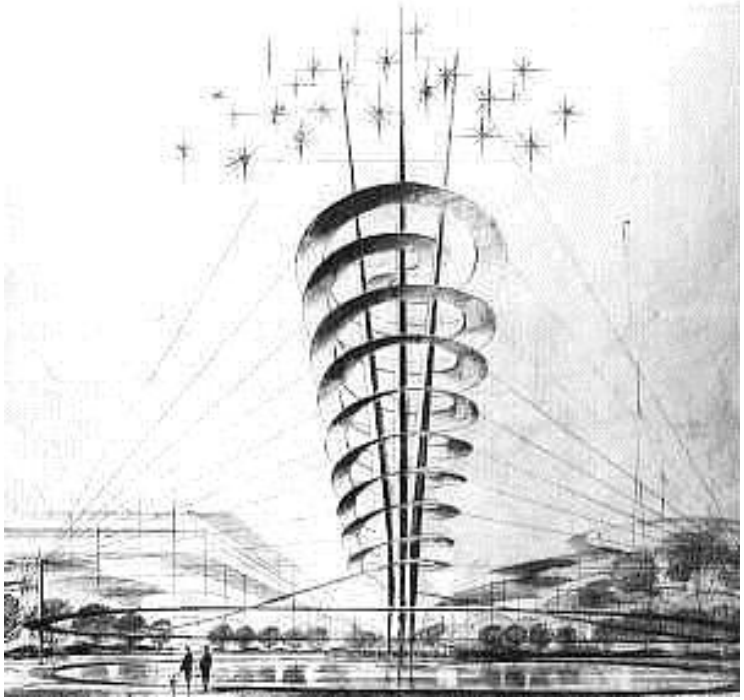
"It gets down to these alternatives.

1) ***Pure abstraction. Absolutely nothing doing. Toss it out.***
2) ***Understandable abstraction symbolizing theme, with some significance or meaning for the average person.***
3) ***U.N. Buildings. Kind of corny. Unoriginal. U.N. probably won't like it. Neither will some of our people, but it's not impossible.***
4) ***Something from electronic or invention world.***
5) ***Throgs Neck or Narrows suspension bridge.***
6) ***Onward and upward symbol -- Heaven knows what.***
7) ***Something else."***

Robert Moses

RE: upon becoming *President of the Fair* in 1960, Moses' first task was to come up with an idea for a symbol for the fair that would be instantly recognizable and representative of the fair, akin to the Trylon and Perisphere of 1939/40

Journey to the Stars



"At the risk of being put down as a barbarian, I think its a cross between a part of a make and break engine or a bedspring..."

Robert Moses

RE: Moses asked the design firm of *Walter Dorwin Teague* to come up with some ideas for a centerpiece. Their response was "Journey to the Stars" – a 170-foot spiral of steel and aluminum that took fairgoers to the top of the spiral where they could view star-shaped, helium-filled balloons floating above the structure. Moses was not impressed.

"We were deluged with theme symbols - mostly abstract, aspirational, spiral, uplifting, flashing, or burning with a hard and gemlike flame, whose resemblance to anything living or dead was purely coincidental. I can comprehend the magnificent symbolism of a four-footed musical theme like that of Beethoven's Fifth ... but the symbolism proposed by the avant-garde at Flushing Meadow, even if it be ambrosia to the intelligentsia, was surely caviar to the general."

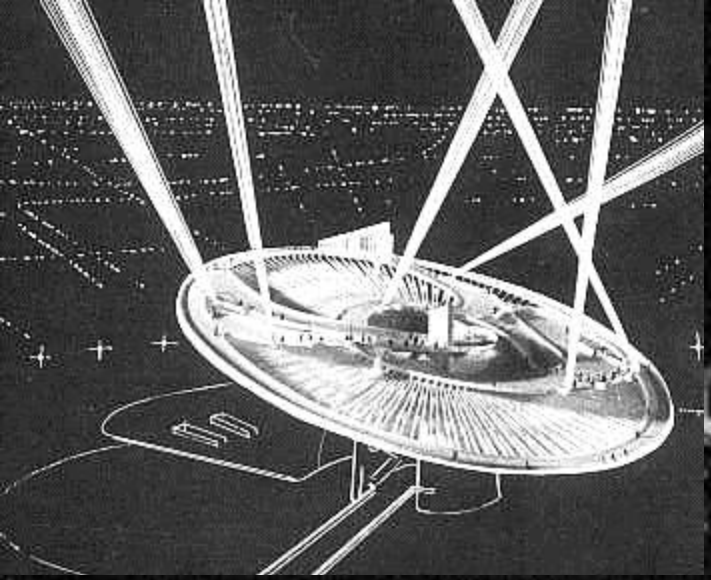
Robert Moses

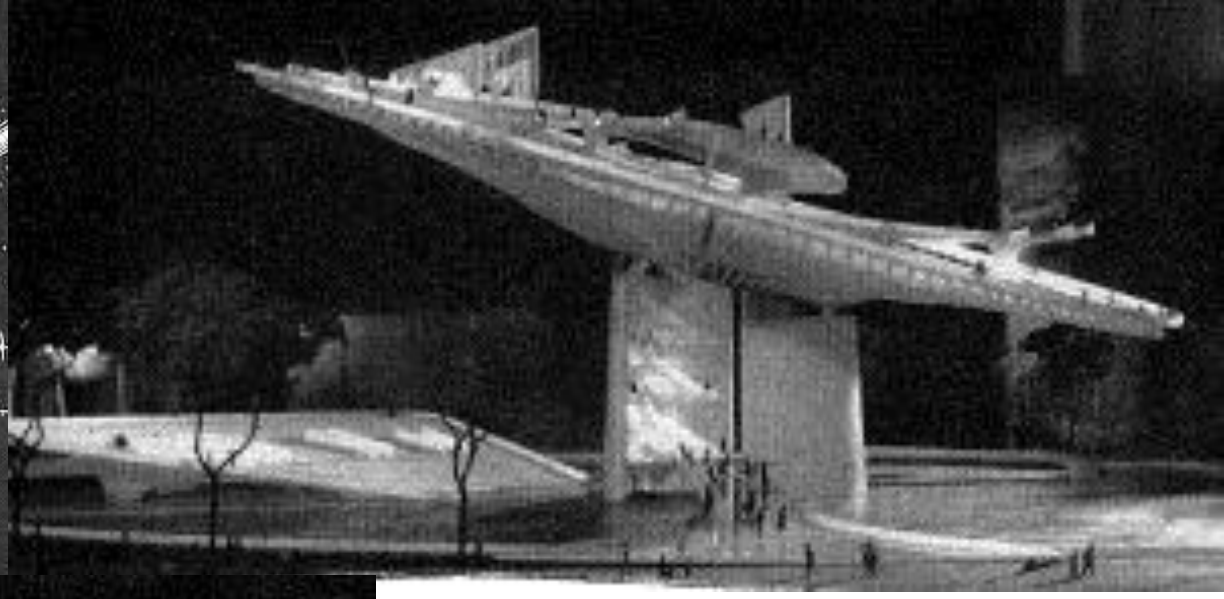
The Galaxon

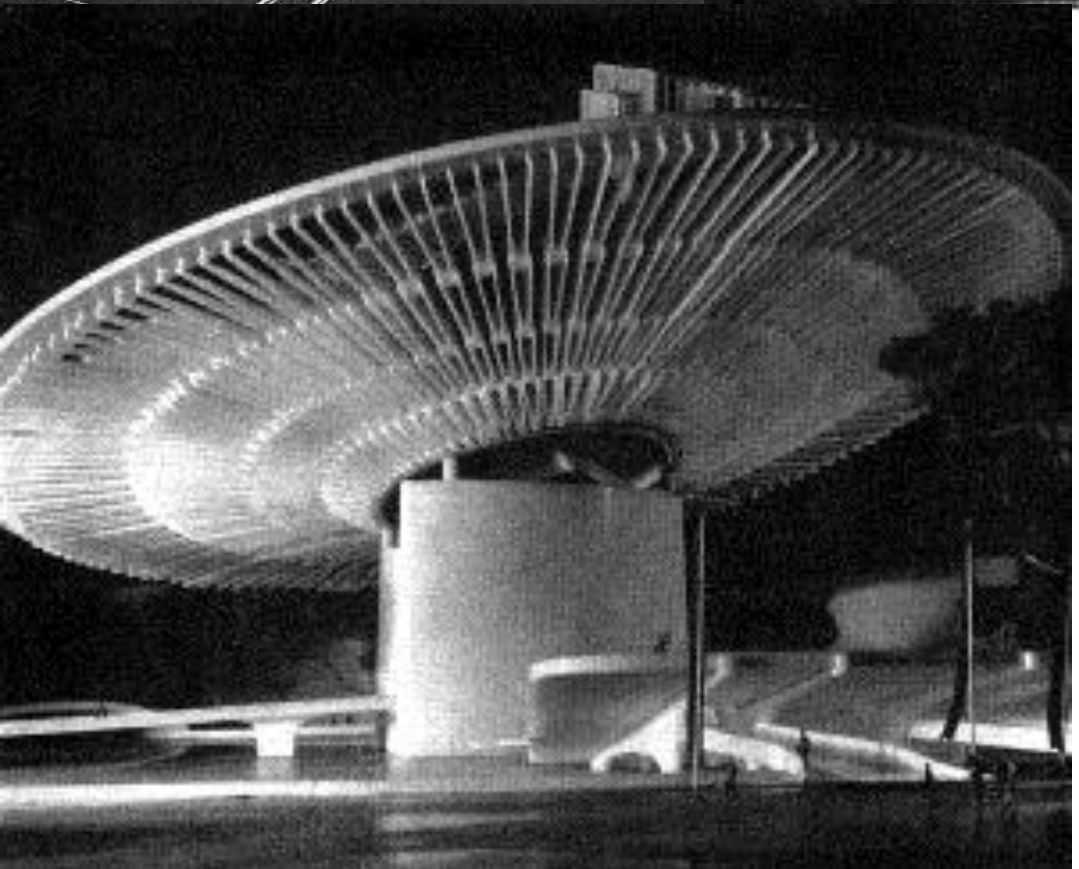
"The Galaxon, a concrete 'space park' designed by Paul Rudolph, head of the Department of Architecture at Yale University, has been announced by the Portland Cement Association as 'a proposed project' for the 1964 New York World's Fair. Its cost is estimated at $4 million. Commissioned by the P.C.A. as 'a dramatic and imaginative design in concrete,' the Galaxon consists of a giant, saucer-shaped platform tilted at an 18-degree angle to the earth and held high above it by two curved walls rising from a circular lagoon. The gleaming 300-foot diameter disc of reinforced concrete would hover in the air like some huge space ship. Visitors would be lifted to the center of the 'saucer' by escalators and elevators inside the curved supporting walls. From the central ring they would walk outward over curved ramps to a constantly moving sidewalk on the disc's outside perimeter. The sidewalk would rise and fall from the 160-foot high apex of the inclined disc, to a low point approximately 70-feet above the ground. A stage is projected from one of its two supporting walls and a restaurant, planetary viewing station and other educational or recreational features could be located at points along its top surface to make it an entertainment center. The Galaxon was among several designs displayed at an exhibition in New York of the use of concrete in so-called 'visionary' architecture."

***Architectural Record*, July 1961**

RE: the 160-foot high by 340-foot diameter saucer-shaped "star viewing platform" - *The Galaxon.* Star viewing might have been difficult considering the bright lights of the fair. Moses would also reject this proposal.

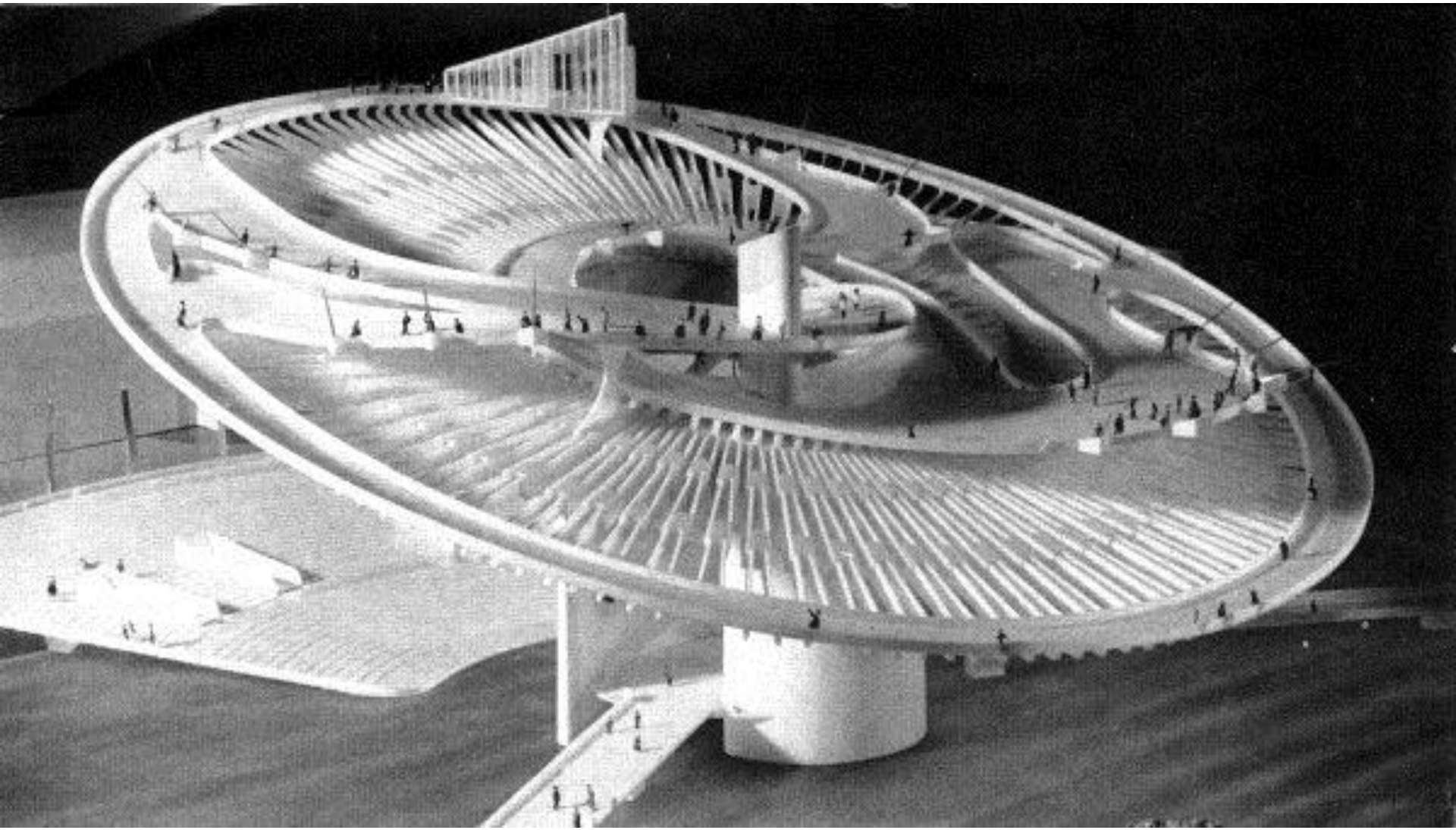






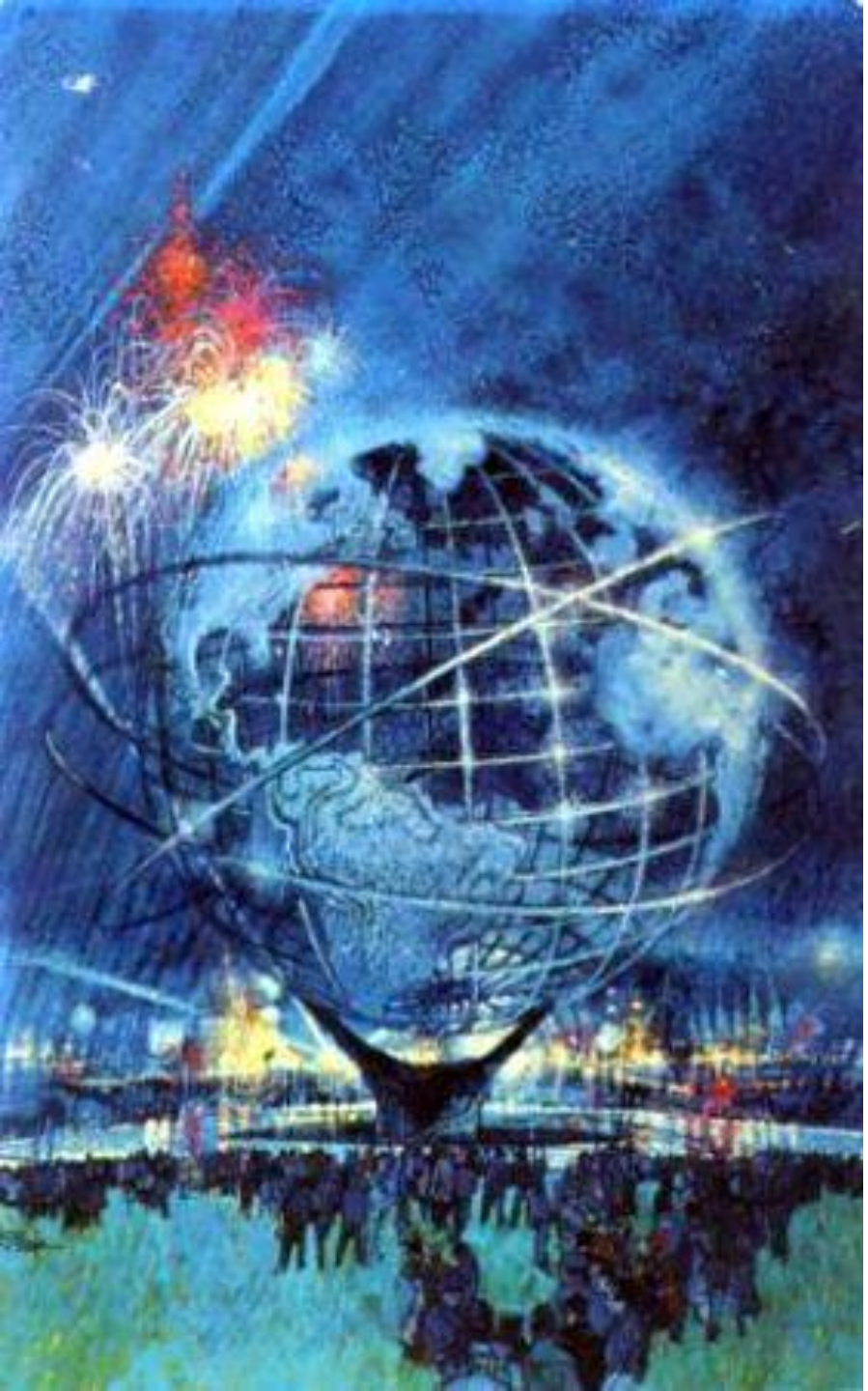
The Galaxon

Designed by Architect
Paul Rudolph
(model)



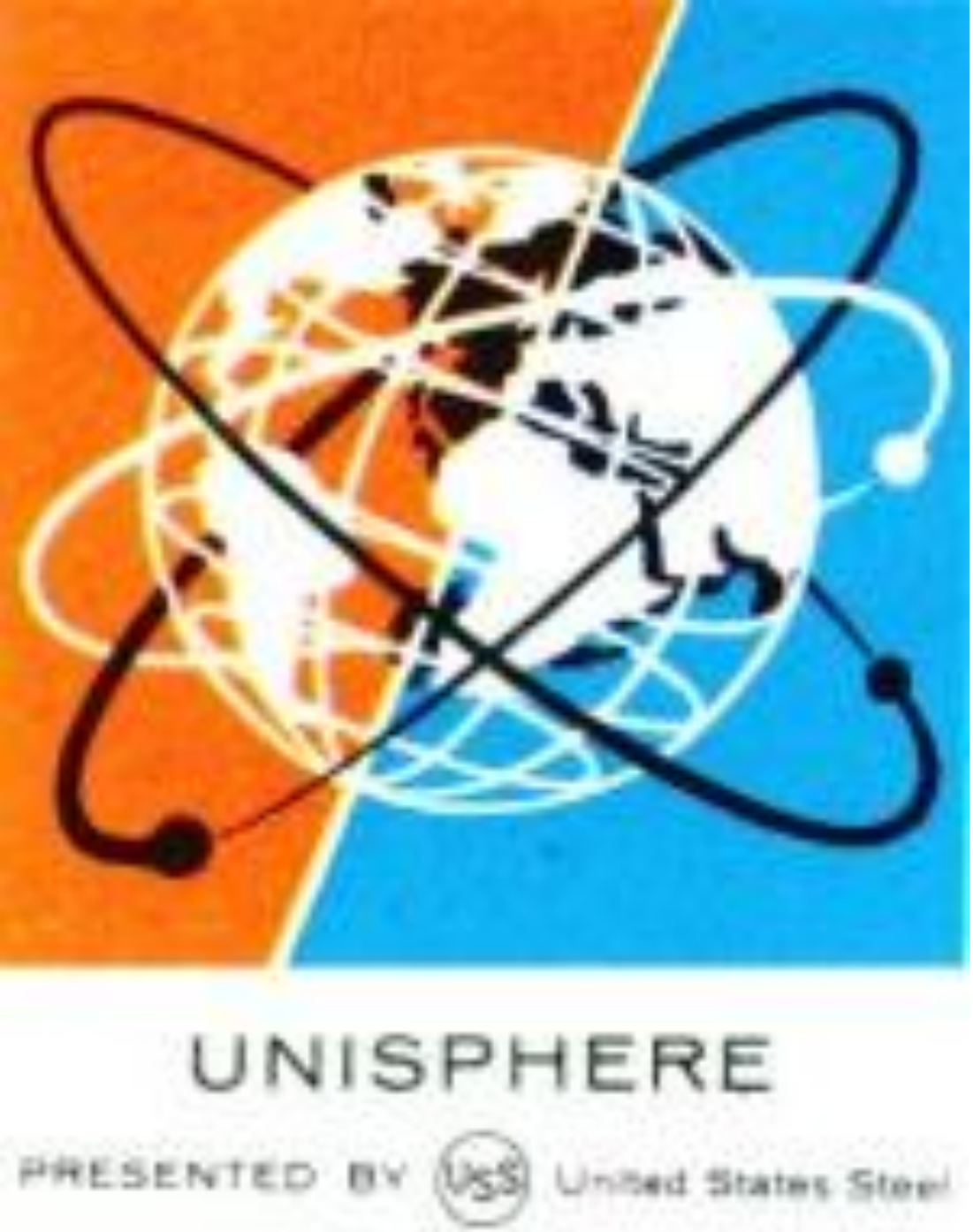
"We looked high and low for a challenging symbol for the New York World's Fair of 1964 and 1965. It had to be of the space age; it had to reflect the interdependence of man on the planet Earth, and it had to emphasize man's achievements and aspirations. It had to be the cynosure of all visitors, dominating Flushing Meadow, and built to remain as a permanent feature of the park, reminding succeeding generations of a pageant of surpassing interest and significance. And so we discarded startling abstractions and decided on a transparent, or shall I say diaphanous globe with orbits, with the continents outlined, and ingenious lighting and other effects in place of revolving machinery… This symbol floating over the Meadow, is going around the world. It signifies the New York Fair everywhere. Its effect is instantaneous. It speaks volumes in a single picture…"

Robert Moses – March 6th 1963 ("first steel" ceremonies)



"Our U.S. Steel Armillary Sphere, the Unisphere, was derided by sour critics. They even said our wonderful fountains and magnificent night lighting were corny and we were accused of being crude, dull, defeated, uncouth Boeotians, lewd fellows of the baser sort."

Robert Moses

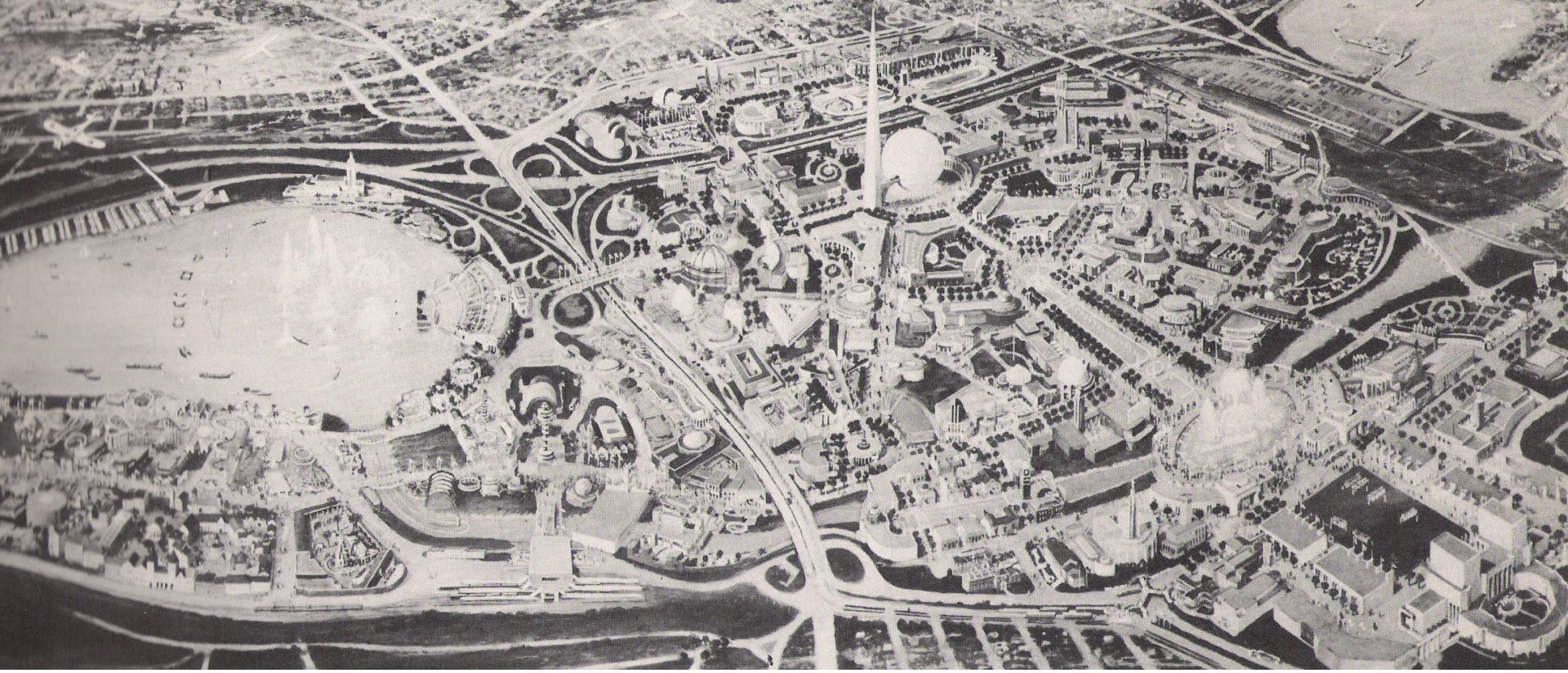


In the end, Moses turned to an old, reliable associate to design the new fair's centerpiece. It would be a true representation of the "Space Age" and an easily recognizable icon that was *"understand-able by the average man."*

A Man Named Clarke

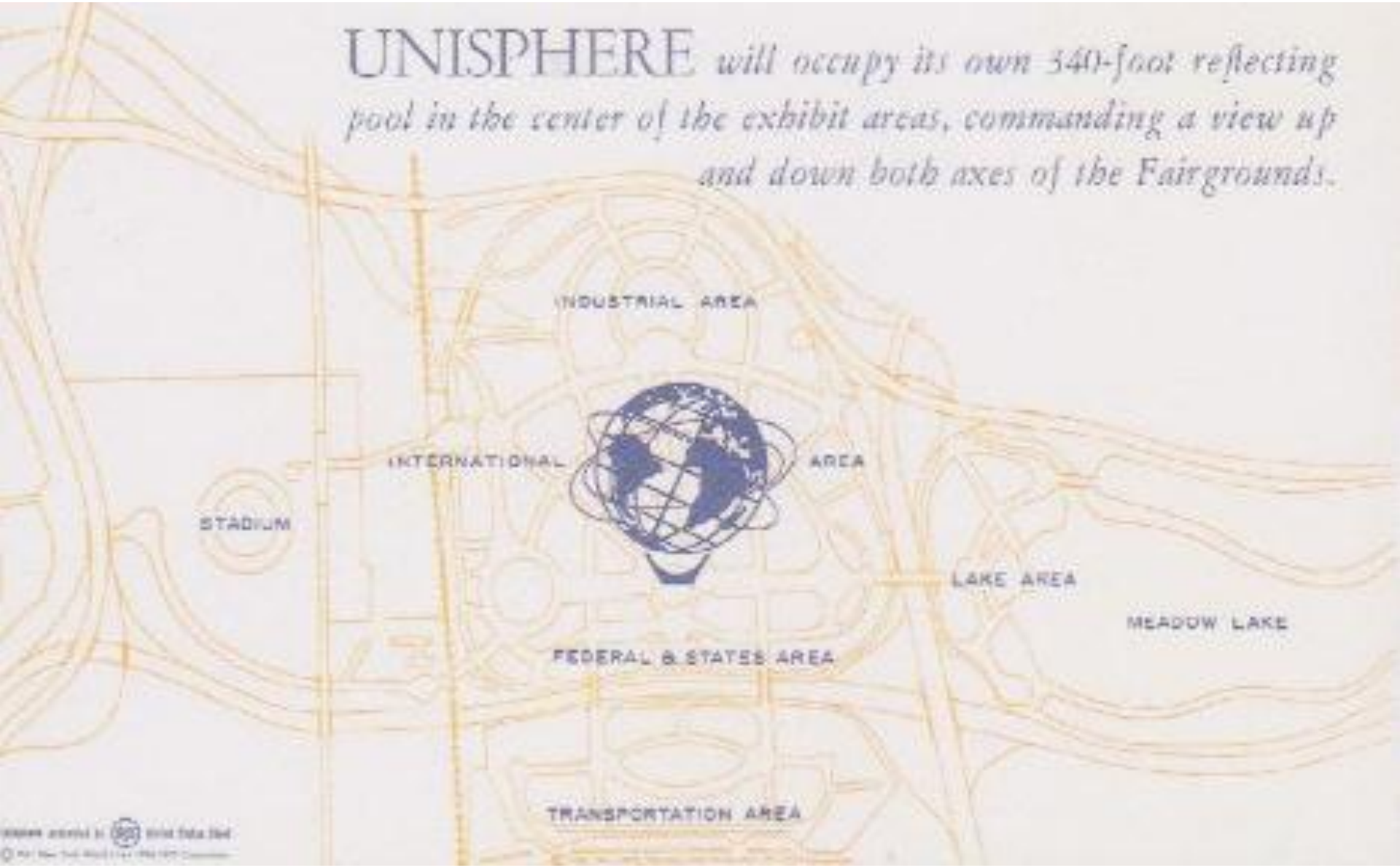
Gilmore David Clarke **was born in New York City on July 12th 1892. He studied landscape architecture and civil engineering at *Cornell University* earning his Bachelor of Science degree in 1913. During the first world war, he served as an engineer with the U.S. Army. In the 1920s, he served on many local state and federal commissions as landscape architect. This included (among others): the *Westchester County Park Commission*, the *Architectural Advisory Board for the U.S. Capitol* and the *New York State Council of Parks* which was headed by Robert Moses. In 1931, Clarke was awarded the *Gold Medal of Honor in Landscape Architecture* from the *Architectural League of New York* for his work in Westchester County including *Rye Beach Playland*, the *Saw Mill River Parkway* and the *Bronx River Parkway*. He was the acknowledged leader in public works landscape architecture by the onset of the Great Depression. His career advanced rapidly in the 1930s with an appointment as *Consulting Landscape Architect* to the NYC Parks Dept. (also headed by Moses) in 1934. In 1935, he was appointed as a member of the *Board of Design* for the upcoming 1939/40 New York World's Fair.**

Clarke was also a member of the *National Commission on Fine Arts* and the *New York State Planning Commission.* For the NYC Parks Dept., his portfolio includes: the *Central Park Zoo*, the *Henry Hudson Parkway*, *Astoria Park* (Queens), *Orchard Beach* (Bronx) and renovations to *Bryant* and *City Hall Park/s*. From 1935 to 1950, he taught landscape architecture at his alma-mater and starting in 1939 (until his departure in 1950), he served as the *Dean of Architecture* at Cornell. In 1935, Clarke and *Michael Rapuano* – an engineer and landscape architect, formed the civil engineering and landscape architecture firm of *Clarke & Rapuano*, with Clarke serving as president from 1962 to 1972 when he retired. He died August 8th 1982 while on a cruise off the coast of Denmark.



Clarke used a geometric Beaux-Arts plan for the formal northern section (right) of the 1939/40 NYWF inclusive of several major and minor boulevards and paths radiating outward from a central point. Major axes terminated at focal points containing major pavilions, fountains and sculpture. The central point was the "theme center" which served as the location of the *Trylon* and *Perisphere* and later the *Unisphere*. The southern section (left) of the fair was less formal and more naturalistic with randomly arranged paths and two artificial lakes with variations in topography. In contrast, the northern section was made very level to allow the fair's architecture to dominate the landscape.

When planning began (in 1959) for a new NYWF to be held in 1964 (the 25th anniversary of the 1939 NYWF) Robert Moses (in 1961) called on Gilmore Clarke to adapt his original landscape plan of the '39/40 fair to the new fair. Late in his career, Clarke had by this time served as a trustee for the *American Museum of Natural History* and as a construction consultant for the *United Nations* headquarters in New York City. Clarke and Rapuano would design many of the 1964/65 fair's statues, pools, fountains and even one exhibit: *The Gardens of Meditation.* Most notable however would be Clarke's design for the fair's centerpiece: *Unisphere*. The *United States Steel Corporation* (USS) would engineer Unisphere and their *American Bridge Division* (in *Ambridge* and *Harrisburg*, PA) would fabricate its components and assemble them at the fair's site. Unisphere would be a gift from USS to the fair and remain as a permanent feature of Flushing Meadows-Corona Park. Clarke and Rapuano, with the engineering firm of *Hamel and Langer* serving as consultant, designed the pool and fountains at Unisphere's base and many of the fair's other pools and fountains which were widely praised.


UNISPHERE will occupy its own 540-foot reflecting pool in the center of the exhibit areas, commanding a view up and down both axes of the Fairgrounds.
INDUSTRIAL AREA
INTERNATIONAL
AREA
STADIUM
LAKE AREA
MEADOW LAKE
FEDERAL & STATES AREA
TRANSPORTATION AREA

Gilmore Clarke's Site Plan for the '64/65 NYWF

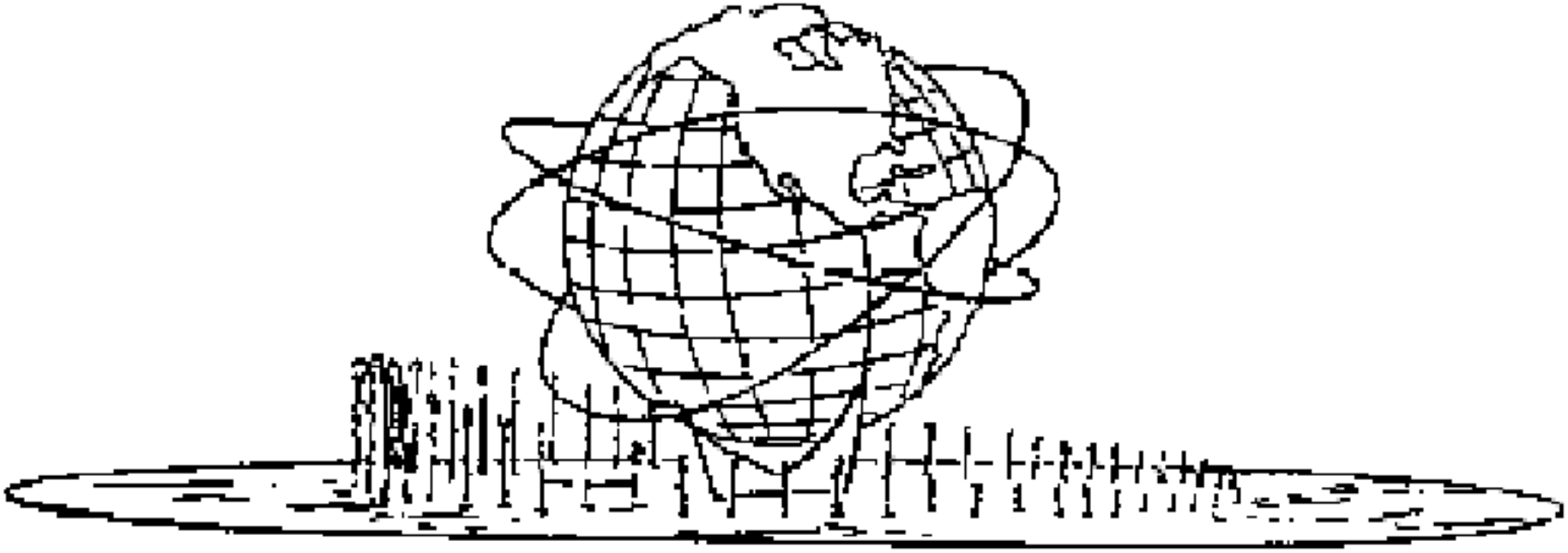
The green dot was the location of a proposed permanent Science Pavilion (*Franklin Science Center*)

Construction of utilities and roads at the site of Unisphere and along the Main Mall. *City of New York* Building (from the 1939/40 NYWF) and *Grand Central Parkway* in foreground.

Pools and Fountains

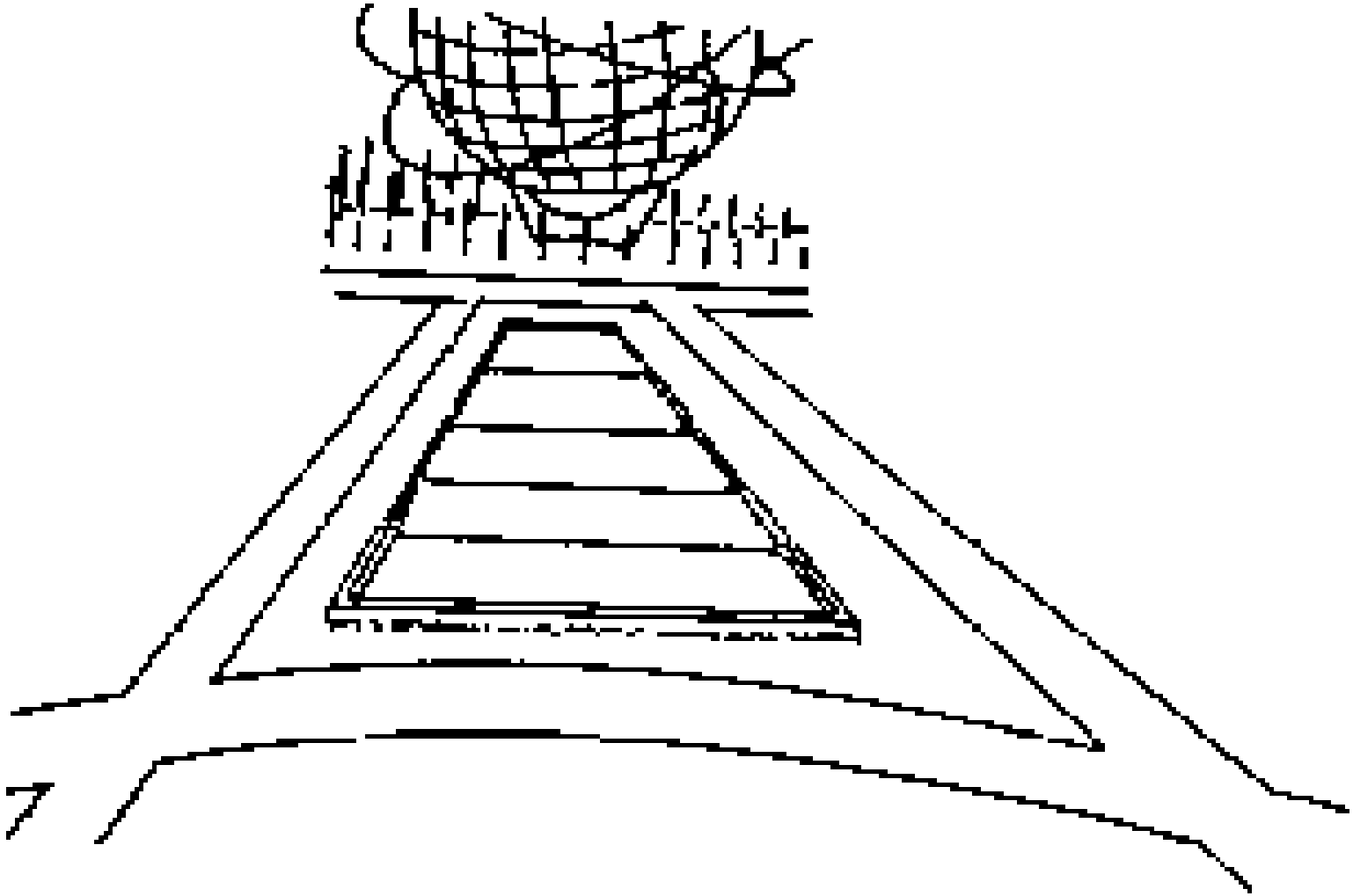
In an early rendering of Unisphere that appeared in an article in the June 27th 1961 issue of the *New York Herald Tribune*, a series of fountains encircle the globe and spray water jets towards it (at an angle) obscuring the base thus making the globe appear to float on water. The pool surrounding Unisphere was to be twelve-sided with sculptured zodiac symbols marking each of the twelve corners.

Fountain of the Continents



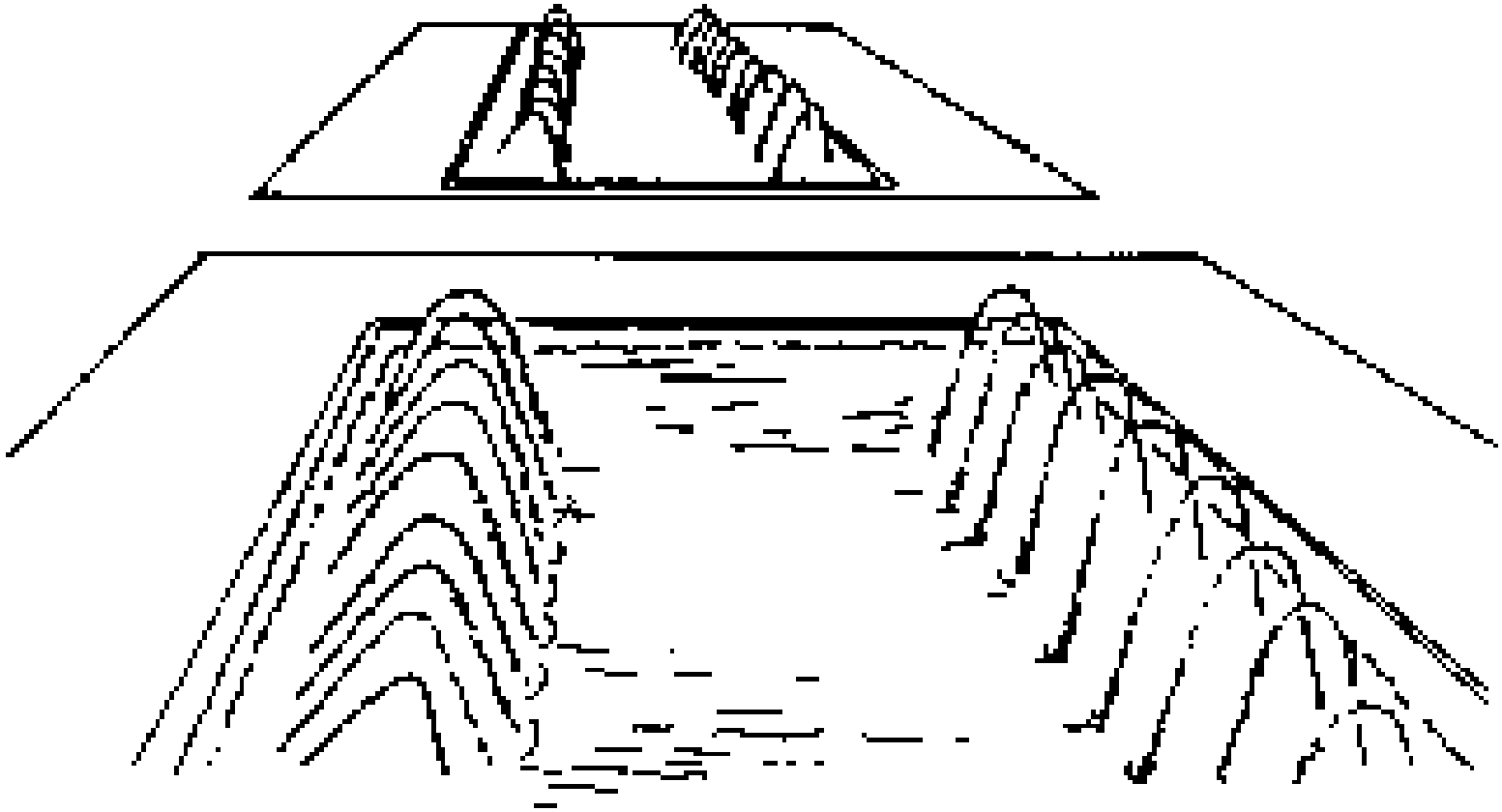
Entitled: *Fountain of the Continents*, the pool and fountain at Unisphere's base in this early rendering by Clarke is similar to the actual fountain, albeit with a different arrangement. Unisphere itself is nearly identical to the actual design built. In this early concept for Unisphere's pool and fountain, a double-ring of water jets projects vertical streams of water eight to forty-feet in the air simulating "advancing wave action." The rising and falling of the water is suggestive of rotation. Ninety-six streams powered by 400-HP motors delivered 15K gallons/min. to a 330-foot diameter pool.

Pool of Reflections



Also designed by Clarke and Rapuano, the *Pool of Reflections* includes a series of five water ponds at stepped heights (with 320 underwater lights) forming a long cascading pool. It is located on the main promenade and reflects Unisphere in its pool. Circulating 1K gal/min., it too was to remain as a permanent feature of the park.

The Fountain of the Fairs



Designed by Clarke and Rapuano as well, *The Fountain of the Fairs* includes both east and west ponds. It has a row of arching water jets on each side, directed inward toward the center of the pool. It was to remain as a permanent feature of the park as well. Fifty-two jet streams discharge approximately 7,200 gallons of water per minute. Underwater lights (in the splash shields) provide illumination for the water jets.

The Fountain of the Fairs

Sculptor Donald DeLue's 43-foot tall bronze sculpture entitled: *The Rocket Thrower* (above)

The Rocket Thrower

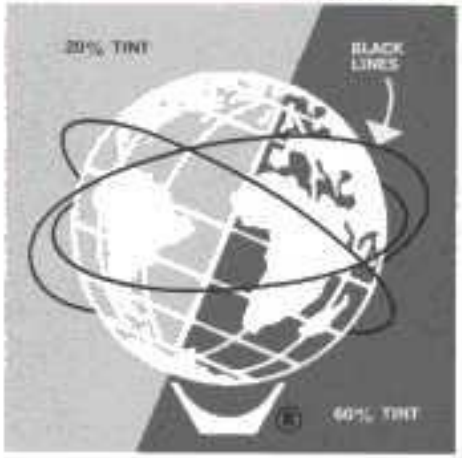
The Court of the Astronauts

Clarke and Rapuano's famous rendering of *The Court of the Astronauts* (left). The rendering featuring the *Rocket Thrower*, *Unisphere*, *Fountains of the Fair* and *Pool of Reflections* became the basis for the USPS stamp commemorating the fair (right). Rocket Thrower was located between the Pool of Reflections and the Fountains of the Fair.

Clarke's design concept for Unisphere consisted of curving structural members (representing both latitudinal and longitudinal lines) forming a steel cage. The horizontal and vertical (*meridians* and *parallels*) members would in turn support representations of the seven continents and orbital rings (representing three early space flights) would encircle the globe. Clarke wanted Unisphere to feature accurate representations of the earth's meridians, parallels and land masses without structural members being too thick, irregularly spaced and/or cross-braced – not an easy task. Unisphere would be supported by an inverted tripod-base weighing 200K pounds made of low-alloy, high-strength steel anchored to the foundation with 100K pounds per square-inch (yield-strength) steel bolts. The globe itself weighs 700K pounds and contains 1.5-miles of meridians, parallels and orbit rings. It is 140-feet high and 120-feet in diameter and contains more than five-hundred major structural elements. The 23.5-degree tilt represents the same tilt of the earth. The Perisphere's piling ring was used for Unisphere's concrete foundation with the addition of six-hundred, 100-foot long piles.

As centerpiece, Unisphere played a significant role in marketing the fair around the world. Corporate participants featured Unisphere in their print and film advertising for the fair and it featured prominently on fair souvenirs (i.e. mugs, plates, lighters, bumper stickers etc.). For one dollar, a telegram featuring Unisphere with one of eleven pre-written texts (praising the virtues of the fair) could be sent anywhere in the United States. The word "Unisphere" and Unisphere's image were both registered as official trademarks of the Fair Corporation requiring the legal trademark symbol to appear in the immediate vicinity of any pictorial representation of the Unisphere (on an orange and blue background) as its official logo.

BLACK AND WHITE



Unisphere® presented by United States Steel

COLOR

Unisphere® presented by United States Steel

THE USS SYMBOL AND LOGOTYPE

The credit line "Unisphere® presented by United States Steel" must always be used in immediate juxtaposition to the symbol except in special cases specifically approved in writing by the Fair Corporation. The type is "Standard Bold Condensed." The "presented by" should not be more than half the height of "United States Steel," e.g., 12 point as against 24 point (or other appropriate sizes) except when the Unisphere® symbol is reproduced so small that "presented by" becomes illegible. The relationship in size between the USS and "United States Steel" must always be the same.

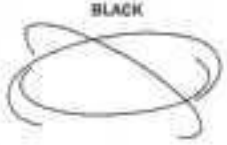
SYMBOL REPRODUCTION

The notes on the orange and blue, and the black and white symbols, printed on pages 4 and 5, indicate World's Fair colors and tints. The screen should be as fine as the chosen printing process permits. The three drawings at right indicate the acetate separations available at the Communications & Public Relations Department of the New York World's Fair 1964-1965 Corporation to be used to reproduce the black, orange and blue or black, dark gray and light gray symbols. The reproduction on the right is illustrative and may not be used.

ORANGE OR 20% BLACK

BLUE OR 60% BLACK

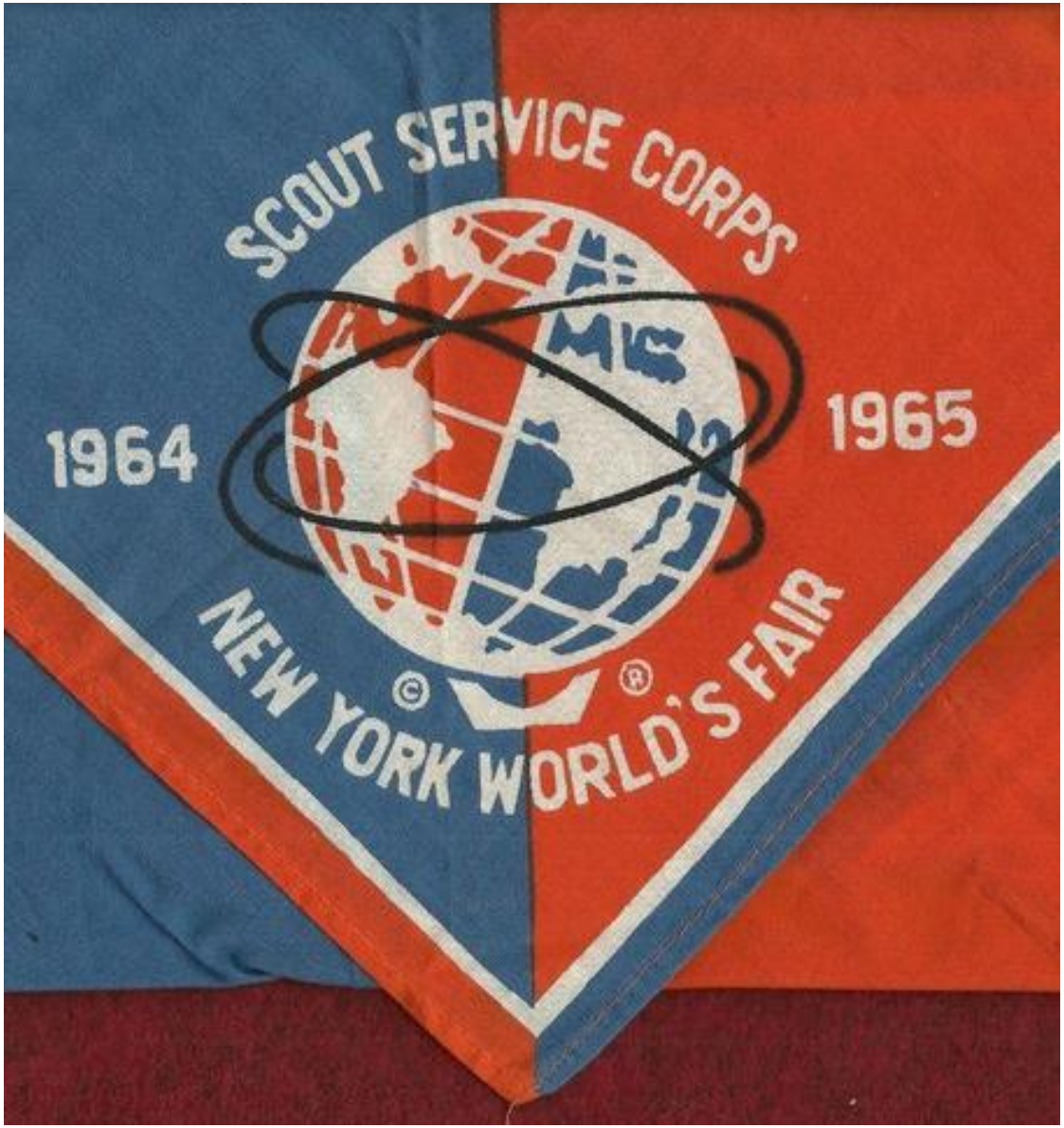
BLACK



UNISPHERE® presented by United States Steel

Also available is a glossy reproduction of line drawing at left.

Unisphere Graphic Standards (USS)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1964
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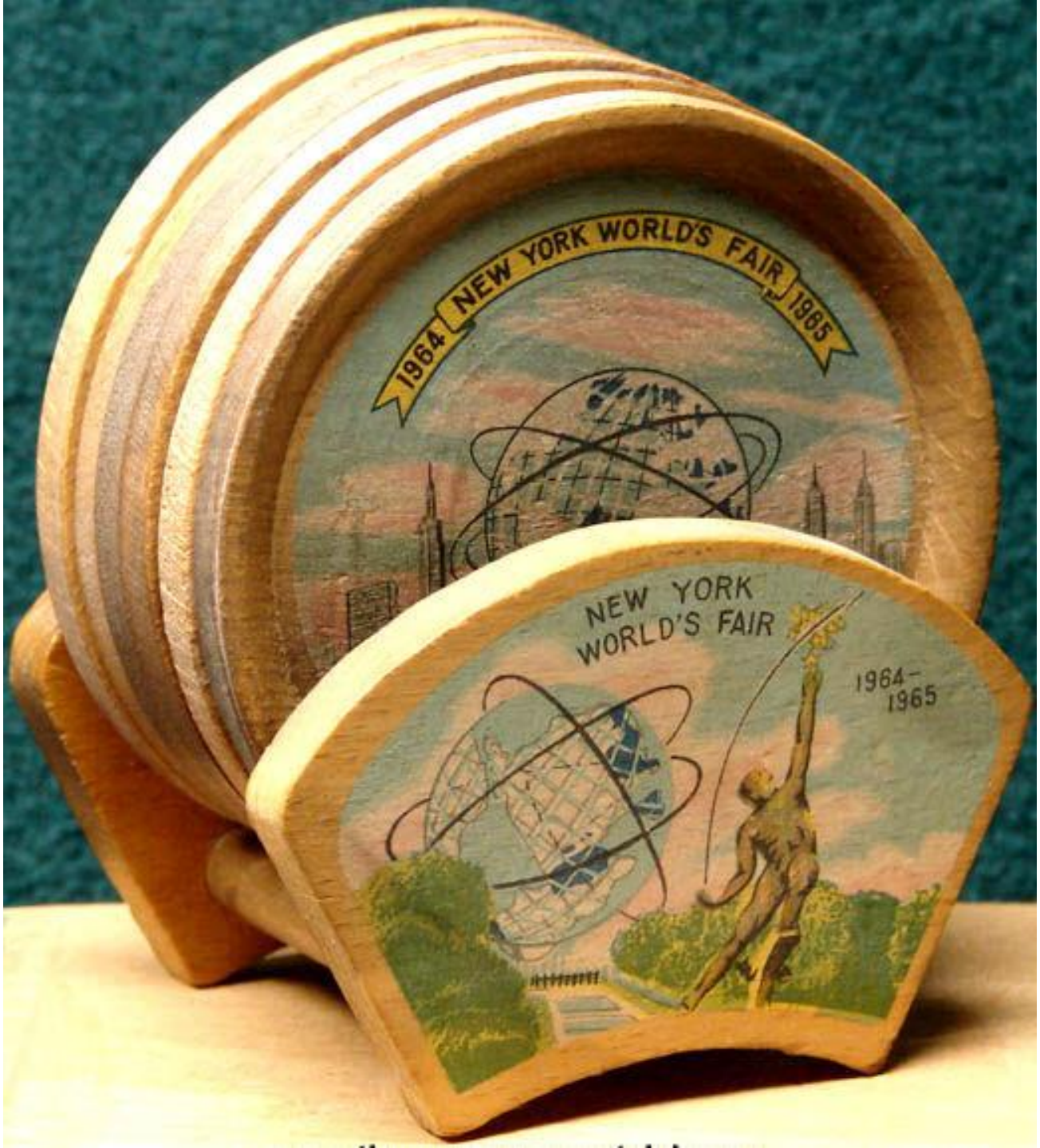
NEW YORK WORLD'S FAIR

Front (top) and Back (bottom) View/s


NEW YORK WORLD'S FAIR 1964 1965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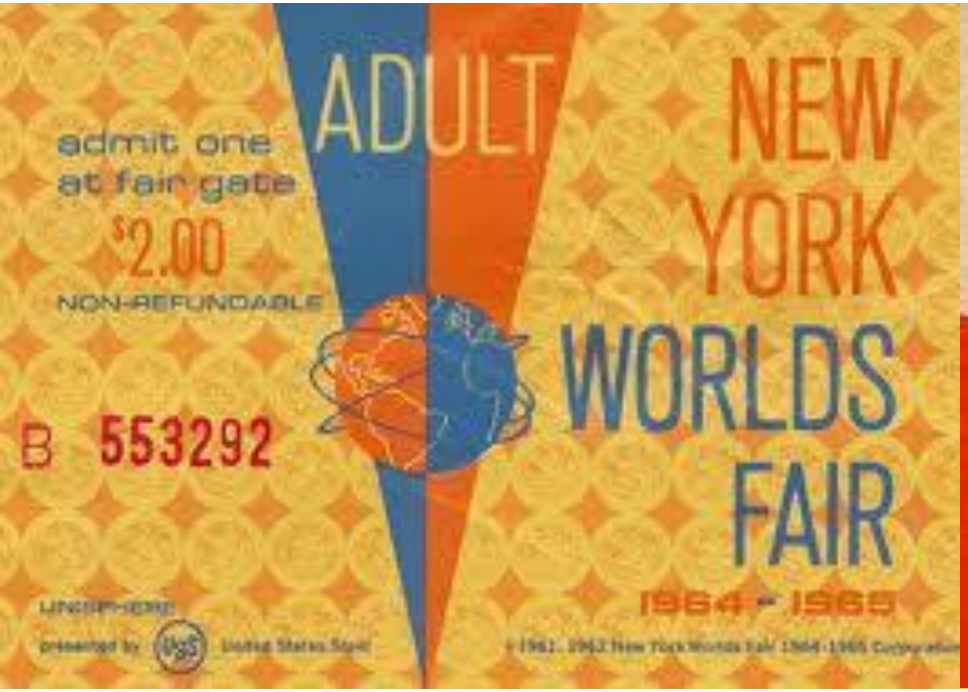
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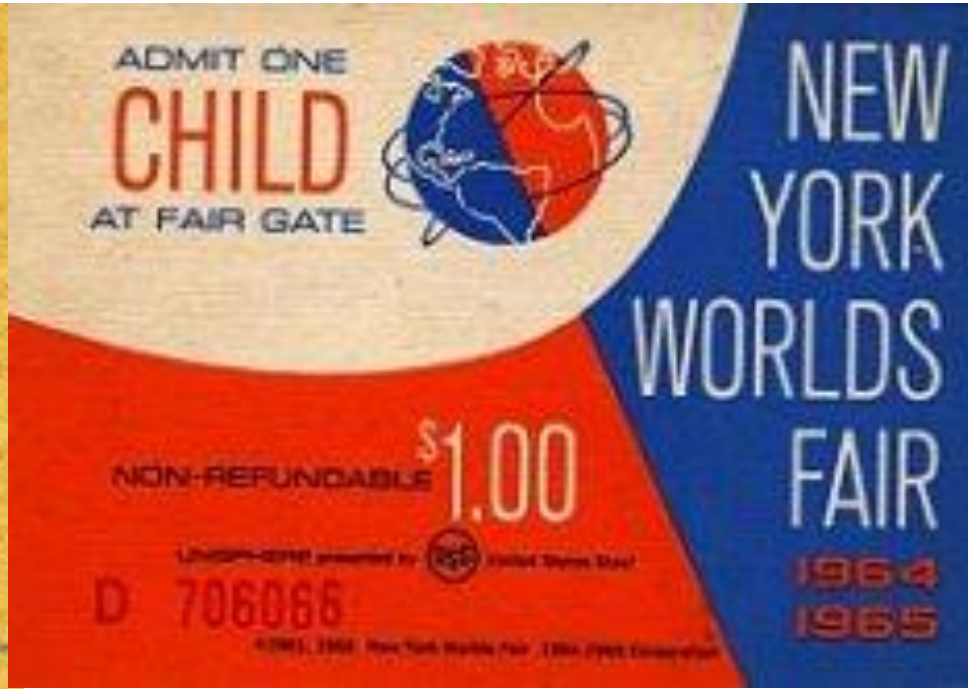
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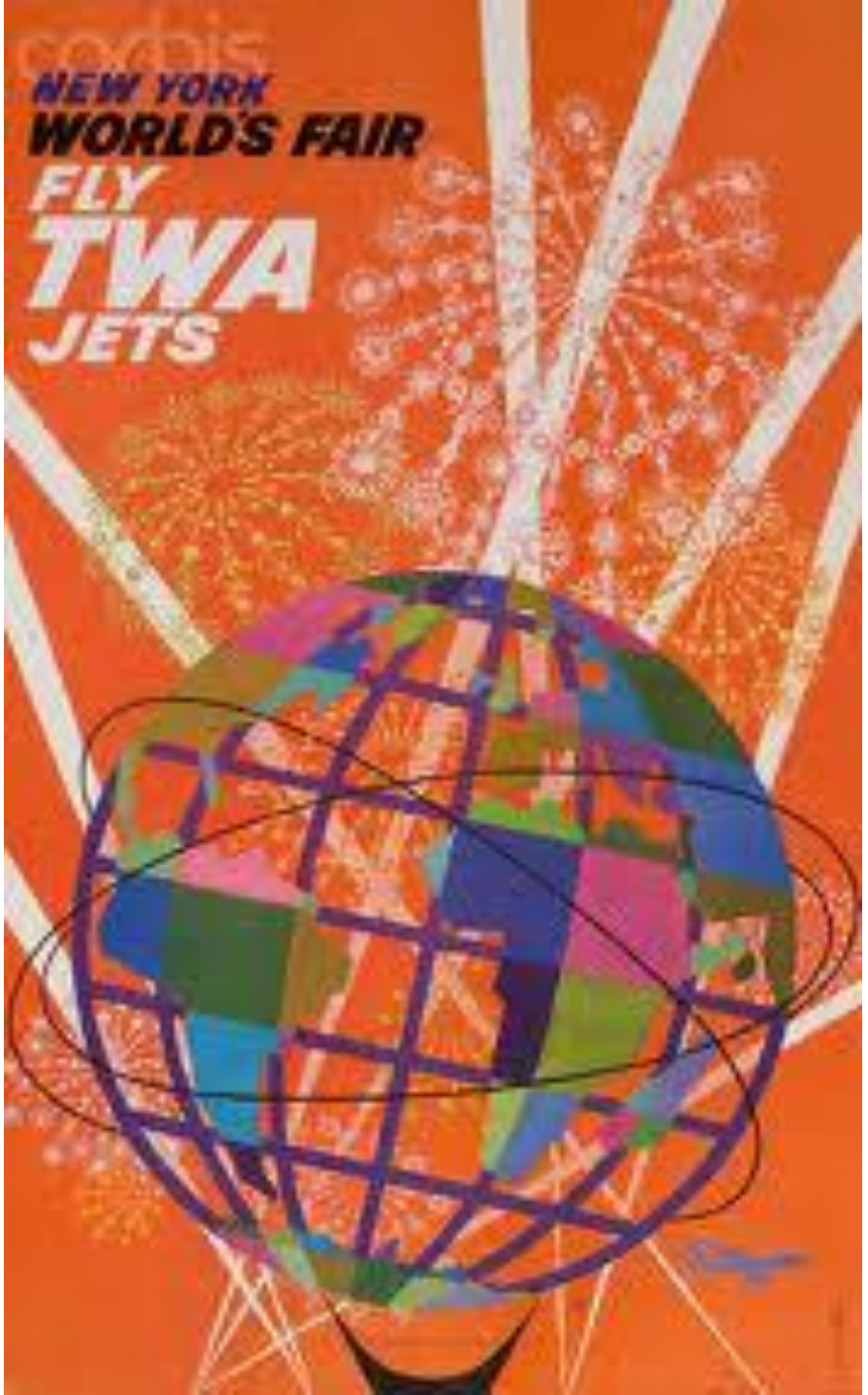

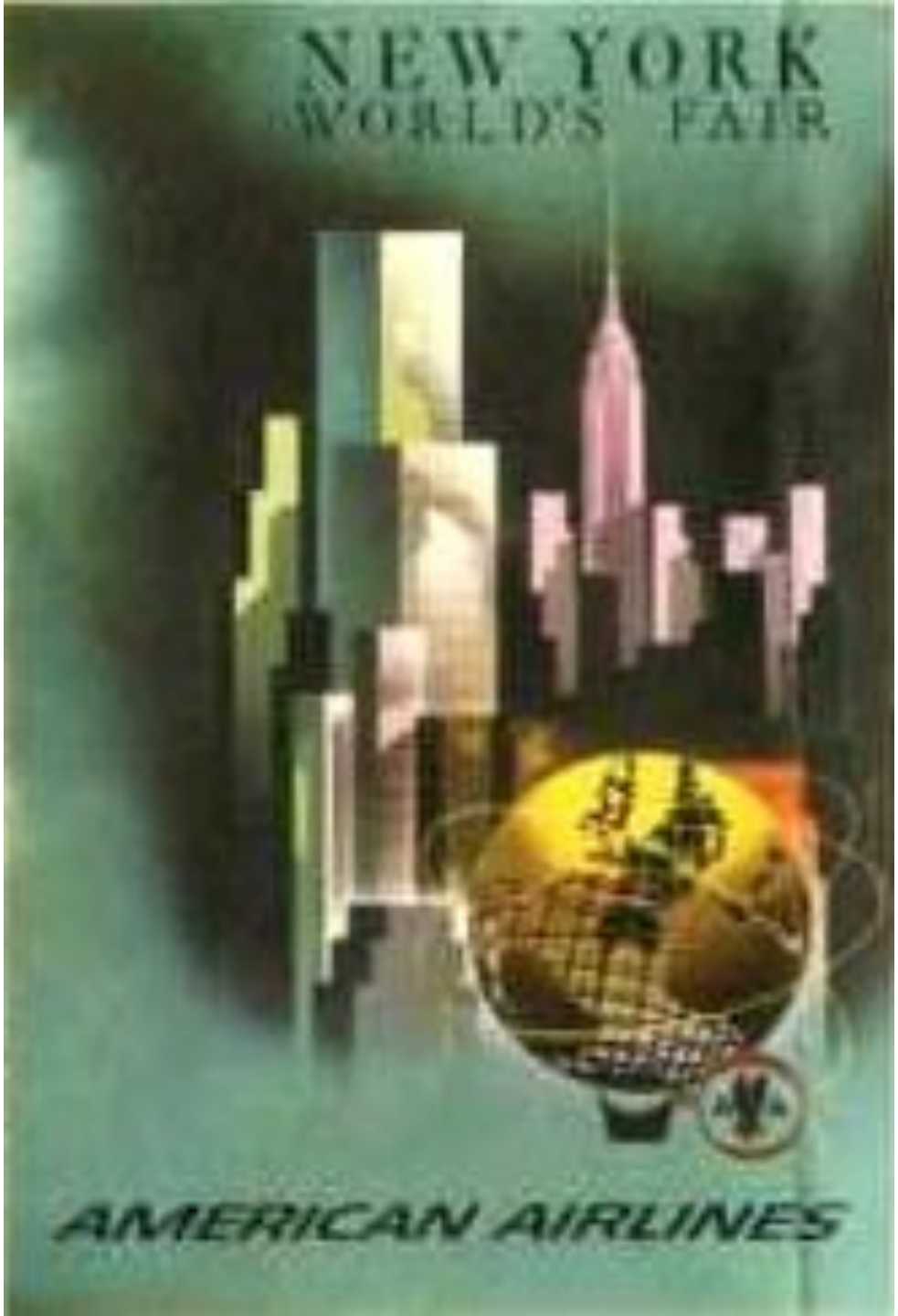
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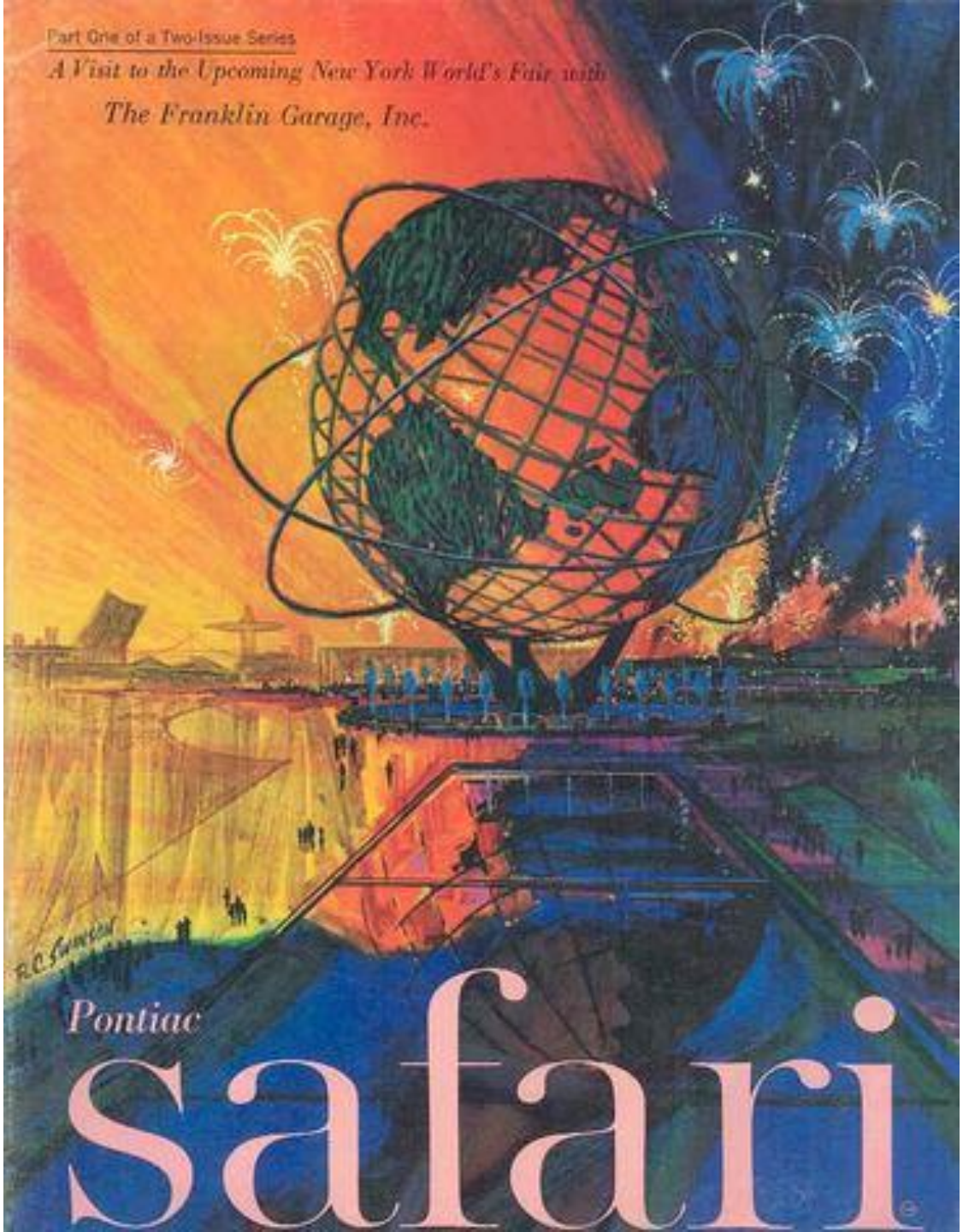
WORLD'S FAIR
AMERICAN AIRLINES


Part One of a Two-Issue Series
A Visit to the Upcoming New York World's Fair with
The Franklin Garage, Inc.
Pontiac
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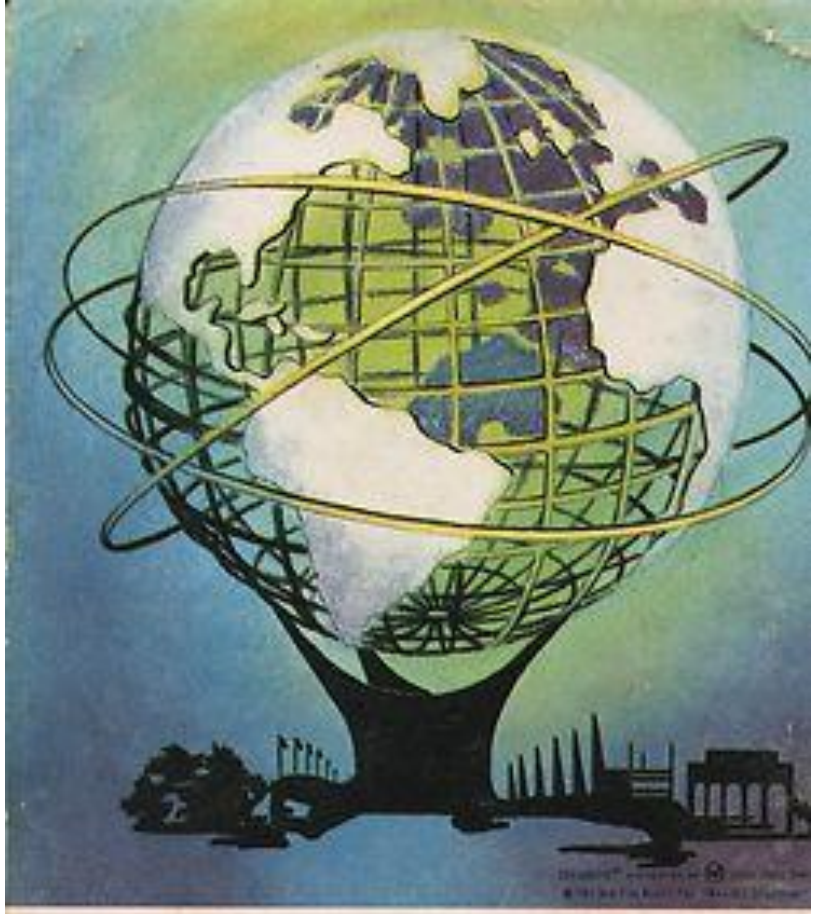


NEW YORK WORLD'S FAIR 1964 - 1965

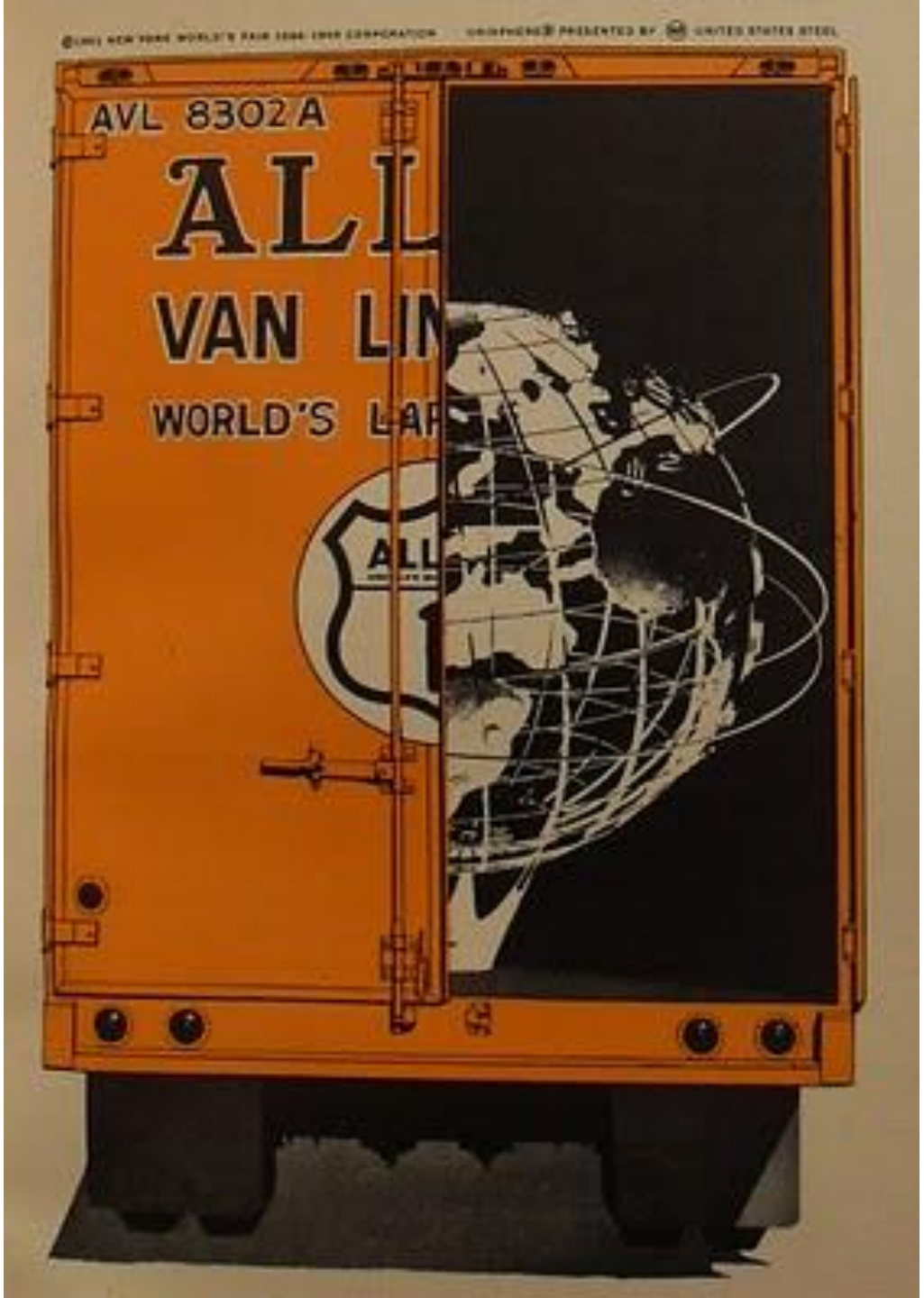
AMERICAN AUTOMOBILE ASSOCIATION

TRIPTIK

Greyhound leaves the designing to us

When Greyhound was appointed "official carrier" for the New York World's Fair, they came to Clark Equipment to build their "Glide-a-ride" lounge trailer. Actually, three of our divisions pitched in to produce this streamlined people-carrier: our Automotive Division built the axles and transmission, Trailer Division built the passenger cars, Industrial Truck Division designed the tractor and put it all together. When companies need equipment to move things, they generally come to Clark. Clark Equipment Company, Buchanan, Michigan.

The name CLARK EQUIPMENT stands for lift trucks, construction machinery, commercial refrigeration, truck trailers, axles and transmissions.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Une autre raison majeure pour visiter les U.S.A. cette année : l'Exposition Universelle de New-York !

New-York n'est plus aujourd'hui qu'à huit heures d'avion de Paris, ou à 5 agréables journées de bateau. Visitez les pavillons de 46 nations représentées à la fabuleuse Exposition Universelle de 1964. Et découvrez aussi d'autres régions des États-Unis, c'est plus facile que jamais grâce aux nouveaux tarifs spéciaux.

L'Exposition Universelle de New-York ouvrira ses portes très bientôt, le 22 avril, pour fermer le 18 octobre. Elle durera 6 mois 1/2, et sera différemment chez en mois plus tard. Au total, plus grand de l'exposition la plus spectaculaire que l'on puisse imaginer.

Comment se rendre à l'Exposition

Le site de l'Exposition se trouve qu'à 14 Km du centre de New-York. Vous pourrez vous y rendre par un service spécial de bateaux promenade, ou par hélicoptère. Vous pourrez aussi atteindre l'Exposition en voiture, en bus, en métro... ou en métro (pour 25 centimes !)

Le billet d'entrée pour l'Exposition coûtera 10 F par visiteur adulte, 5 F par enfant. Vous pourrez visiter l'Exposition de même à pied, en bus, en téléphérique, en monorail, ou la voie du haut de la tour de l'Hélipont. Vous pourrez même suivre le déroulement des manifestations grâce à des écrans de télévision en couleur disséminés à travers toute la superficie de l'Exposition.

Qu'y verrez-vous ?

La fine des clowns à voir est pratiquement infinie. 46 nations, y compris les États-Unis, et une industrie de grande importance composeront ce spectacle inoubliable.

Vous verrez les œuvres d'art du monde entier, et parmi elles la "Pietà" de Michel-Ange, des pièces de l'ancienne Chine, les Manuscrits de la Mer Morte venant du Jordanie, des sculptures à thème naval du Pakistan. Vous pourrez assister à la présentation en public de toutes nouvelles et très électroniques Olympiques de 1964. Vous pourrez même faire un voyage virtuel en fusée vers la lune....

De retour sur terre, vous pourrez savourer le meilleur de cette aire de comédie musicale américaine, des cabarets folkloriques européens, des orchestres de marimbas des Caraïbes. Vous verrez des ballets, du jazz, du passage artistique sur glace, le fabuleux des parties, des "square-dances" et des compétitions de ballons automobiles.

Vous pourrez même voir des Indiens d'Amérique se livrer à leurs distractions favorites : concours de tir à l'arc et de lancer de tomahawks, danses rituelles du serpent. Et lorsque votre appétit se réveillera, vous pourrez choisir parmi plus de 65 restaurants.

Des "affaires" en matière de transports

Après avoir vu l'Exposition Universelle, vous pourrez visiter d'autres régions des États-Unis grâce aux nouveaux tarifs spéciaux consentis aux touristes étrangers.

Pour 450 F vous achèterez un billet à parcours illimité valable 15 jours sur les réseaux de 25 compagnies aériennes régionales. Vous irez découvrir 48 états et plus de 370 villes.

Pour 988 F, le même billet sera valable 45 jours ! Et si vous l'achetez avant votre départ, vous économiserez la taxe de 5 % sur les transports.

Un plus, deux compagnies de rang à réseau national vous offrent un billet à kilométrage illimité sur leurs lignes, valable 99 jours, pour seulement 480 F (*achat obligatoirement avant votre départ*).

Comment préparer votre voyage ?

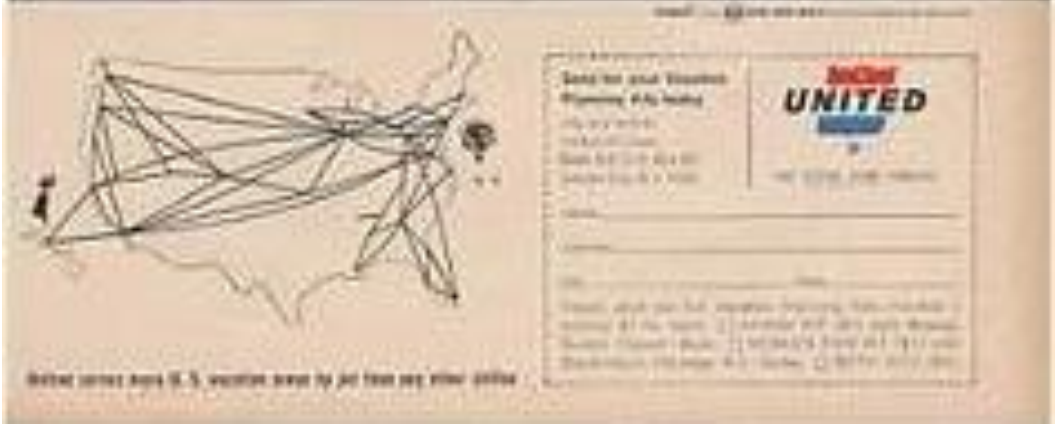
Mettez-vous en rapport avec votre Agent de Voyages, votre compagnie aérienne ou maritime. Ou encore avec l'Office du Tourisme des États-Unis, 17, Avenue Matignon, Paris 8e (téléphone : ELYsées 23-10).

Et souvenez-vous : vous pouvez réserver votre vue panoramique pour les U.S.A. par correspondance !

ALL NATIONS STAND UNITED...FOR THE HAMBURGER

Swift's Premium


...EAST TO THE NEW YORK WORLD'S FAIR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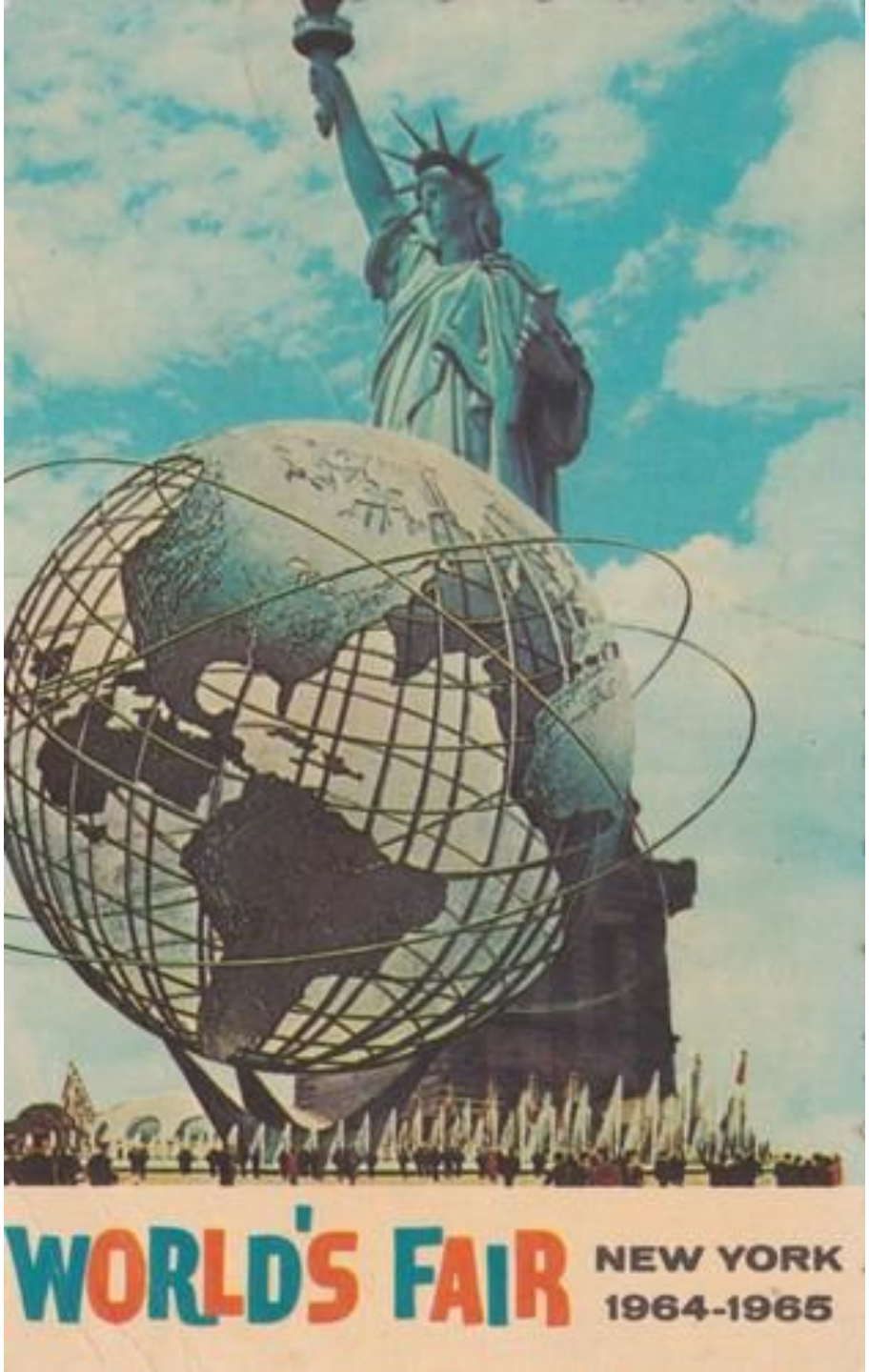
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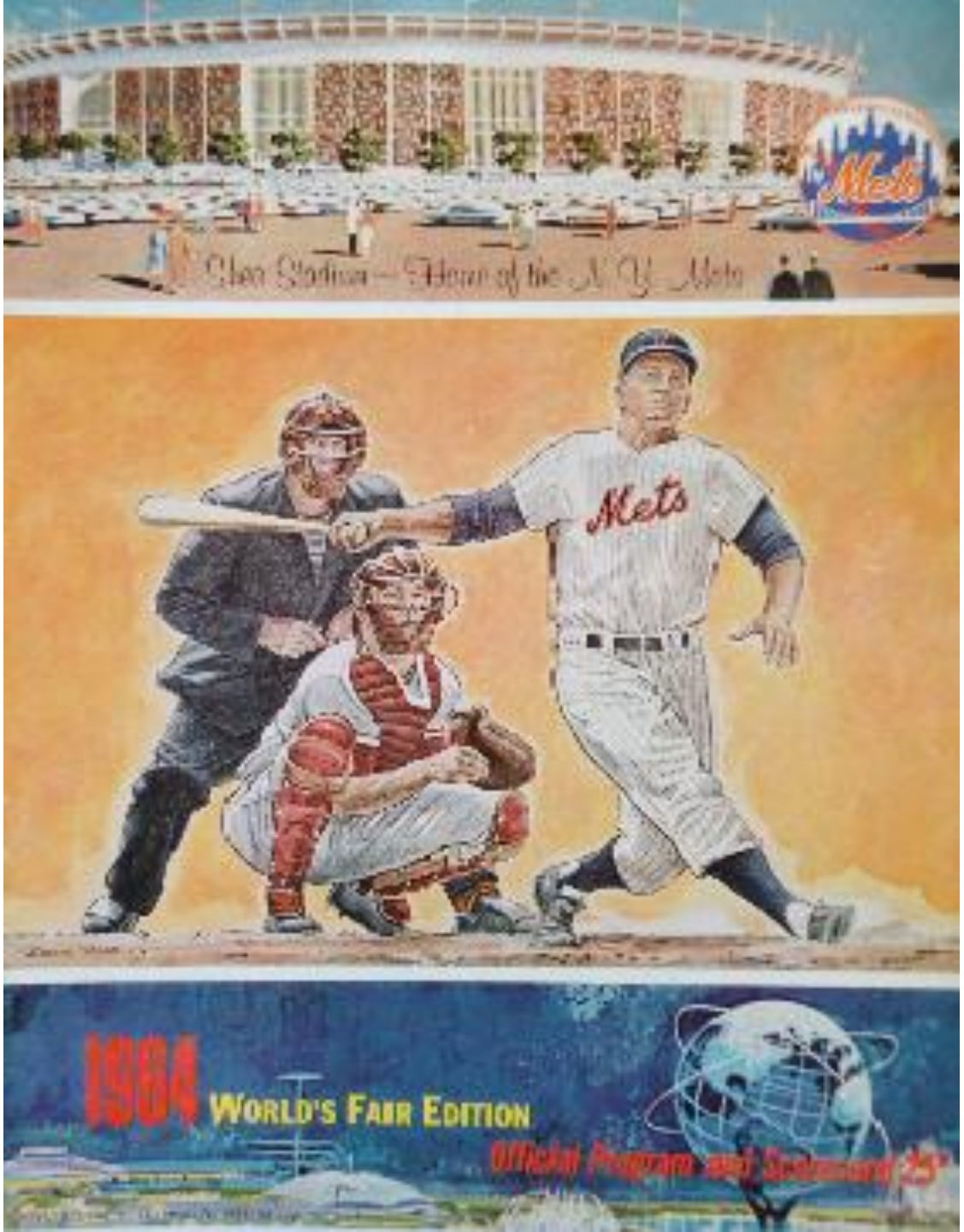
1964-1965


Mets
Mets
1964
WORLD'S FAIR EDITION


All Star Game
CITI FIELD · QUEENS · NEW YORK
2013

Part 5

Biggest World on Earth

"…What stronger, more durable, and more appropriate metal could be thought of than stainless steel? And what builder more imaginative and competent than the United States Steel Corporation?

Robert Moses

RE: excerpt from his March 6th 1963 speech at the "first steel" ceremonies for Unisphere (held in the model room)

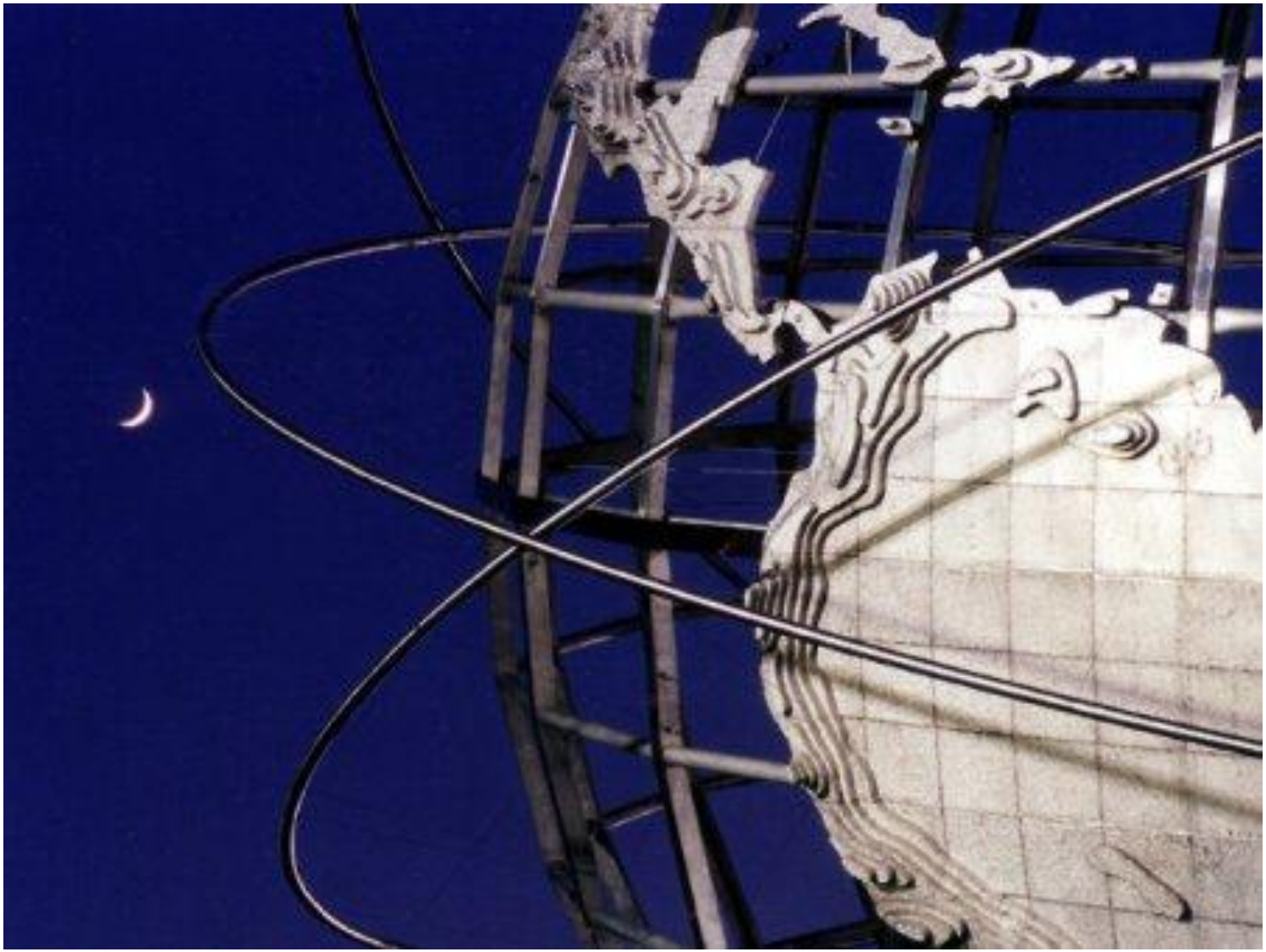
Model Room

"…Displaying to millions the most advanced materials, knowledge and skills, this new World's Fair will present a striking portrayal of contemporary culture. The people of U.S. Steel, almost 200K strong, feel privileged to design, fabricate and erect Unisphere as the symbol of the New York World's Fair of 1964-1965…"

Roger Blough – Chairman of the Board, U.S. Steel Corp.

RE: excerpt from his March 6th 1963 "first steel" ceremony speech

Unisphere created some very unique engineering challenges. Since it is an open structure, practically every component part is visible and exposed to the elements (wind, rain etc.). For the structural elements, USS engineers chose stainless steel for its weatherproof qualities and corrosion resistance. Tests were conducted to determine which surface texture would look best for the land masses at varying viewing distances. A stainless steel mesh was tested, but non-directional textured stainless steel sheeting was chosen for the land masses. To show (exaggerated) topographical contours (i.e. mountain ranges), the sheeting was built-up in layers. Consideration had to be given in Unisphere's structural design for the effect of the concave inner surfaces (of the continental land masses) trapping the wind thus creating tremendous drag on the structure. To insure that Unisphere would remain stable at all times, weight distribution and wind effects had to be carefully considered. Engineers, using a stress transfer pattern, developed varying sectional dimensions of the meridians and parallels thus achieving structural stability without compromising Gilmore Clarke's beautiful design.

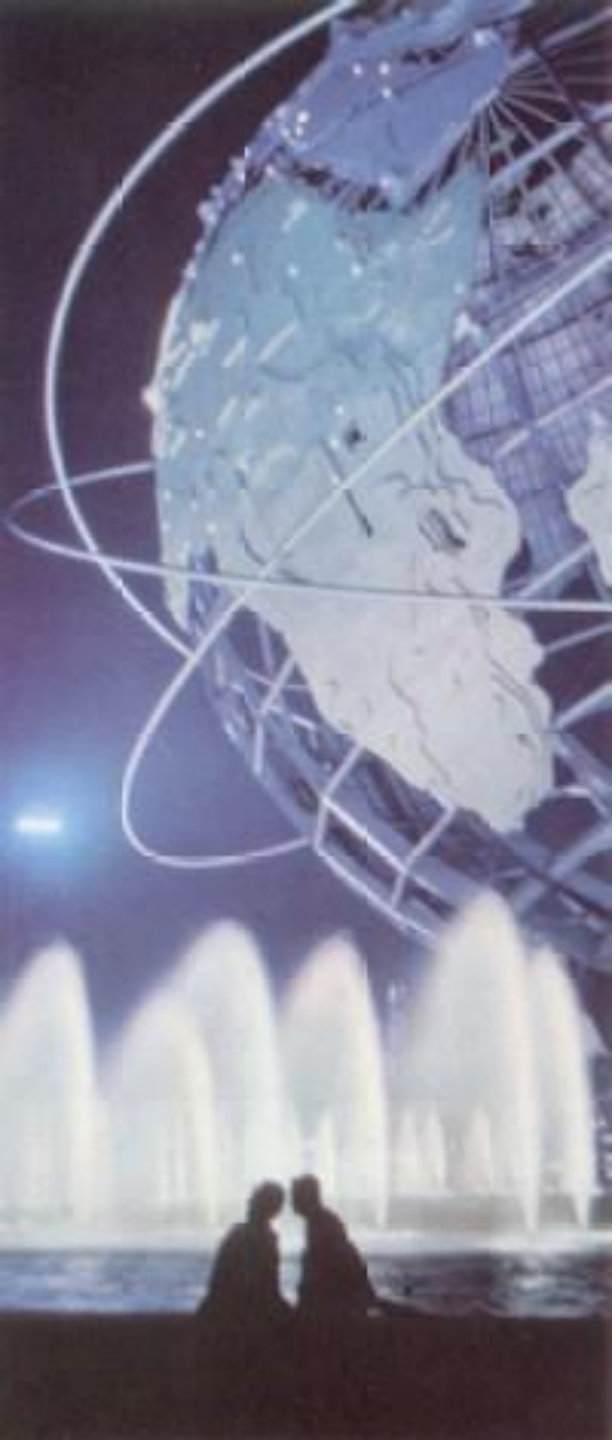


The three polished stainless steel orbital rings are secured to Unisphere via aircraft cable. Each ring weighs three-tons and represent the tracks of *Yuri Gagarin*; the first man in space, *John Glenn*; the first American to orbit the Earth, and *Telstar*; the first active communications satellite. Clarke's early design had called for twelve orbit rings (representing the twelve satellites in orbit at the time of the fair) but this proved impractical and three symbolic orbit rings were chosen instead. Major mountain ranges are shown in relief and capital cities of the world were lit (with recessed lenses) for the duration of the fair. The reflecting pool is 310-feet in diameter and is encircled by a double ring (96 pairs) of fountainheads capable of spraying to a vertical height of twenty-six feet. The floor of the pool and its bulkhead are made of poured concrete. All drains, pipes and fountain casings are contained within the concrete of the pool. Four aluminum plaques (donated by USS) face each of the park's four major walkways and provide descriptive information about Unisphere.

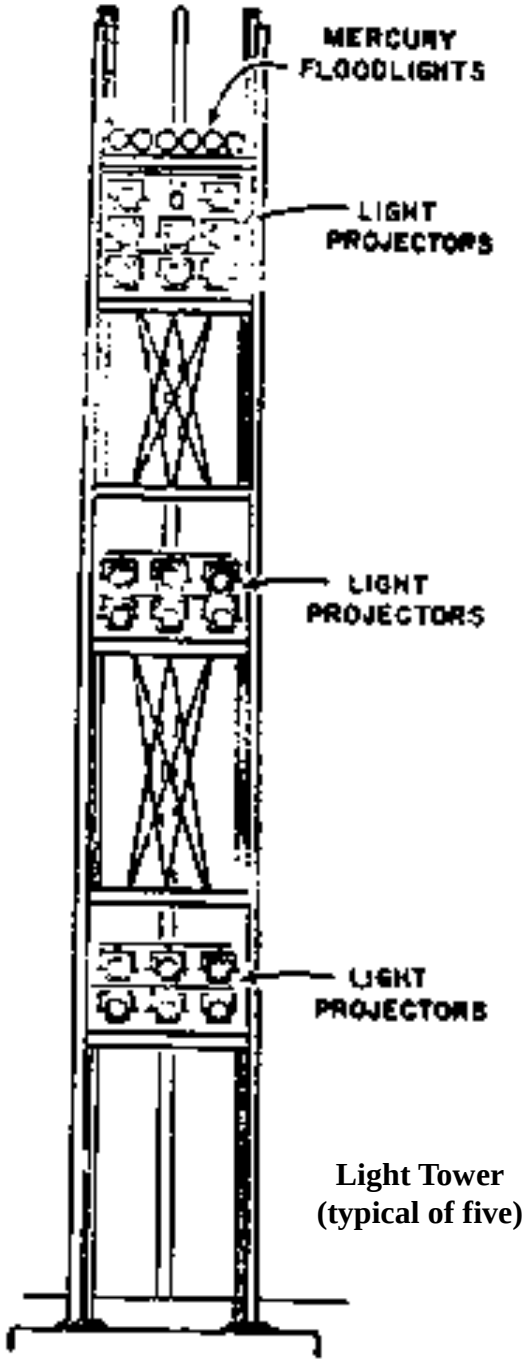
INSCRIPTION: Dedicated toward man's aspirations to Peace Through Understanding and symbolizing his achievements in an expanding universe. Built and presented by the United States Steel Corporation (USS) to the New York World's Fair April 22, 1964. Made of Stainless Steel, the Unisphere is 140-feet high, 120-feet in diameter and weighs 700,000 pounds.

Erected 1964 by United States Steel.

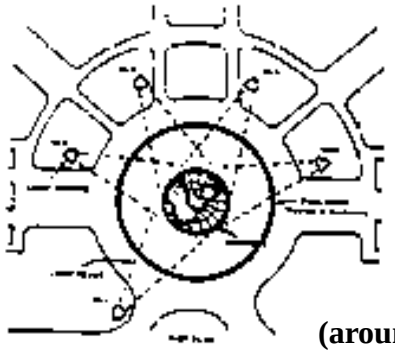
Pool Foundation
(under construction – ca. April 1963)



From the edge of the reflecting pool, Unisphere appears as the earth would look from 6K miles in space. Viewed from an aircraft above, Unisphere, appears to be about the same size as the earth if viewed from the moon. Unisphere's lighting effects were designed to simulate the day/night cycle of the earth. Five tower floodlights at a 200-foot radius (just beyond the edges of the surrounding walkway) simulated the passage of the earth around the sun via light movement. The large towers held powerful spotlights that were synchronized to sweep across the globe. The entire performance was automated with synchronized timers to control the light effect/s. After the Fair ended, some of the lights were used to light the famous Woodstock music festival stage.



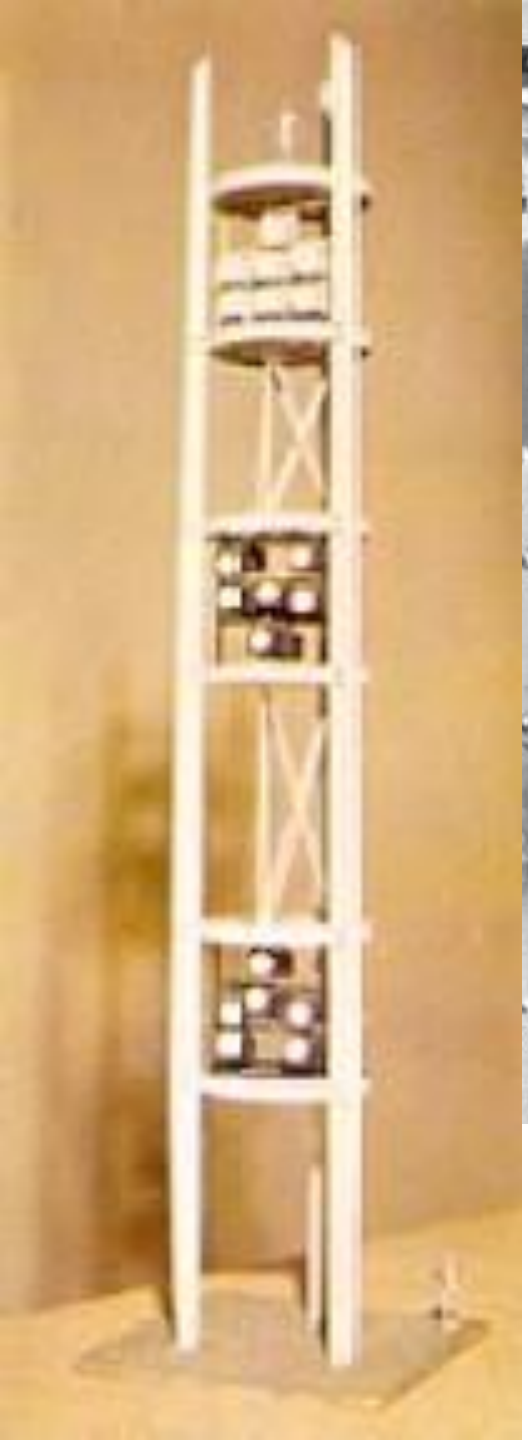
Light Tower (typical of five)



Towers (around Unisphere)

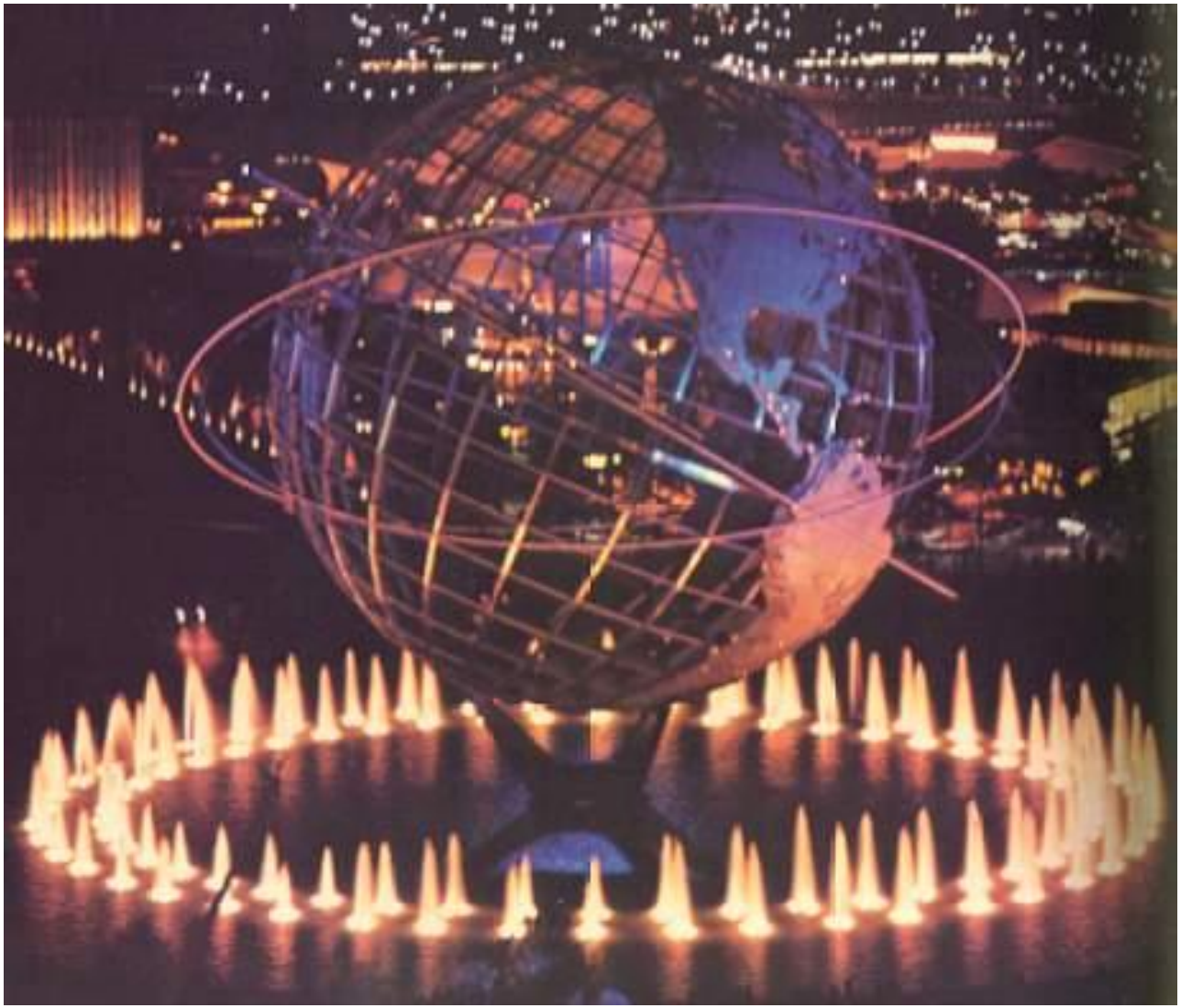
"The Unisphere, 120-feet in diameter and 135-feet high, is illuminated by a mobile lighting arrangement devised to resemble the day-night cycle of the globe. The effect is accomplished by special lighting equipment, mounted on five towers surrounding the theme center, at a 200-foot radius. Light movement from east to west, simulates a rotation of the earth and the setting sun. As darkness comes, blue floodlighting enhances the effect. The entire performance is automatically controlled, with sequential operations regulated by synchronized timers. A total of 35 ellipsoidal projectors and 30 mercury-vapor floodlights are used, with a connected load of 279 KW. The composition presents an enchanting vista from the promenades and walkways in the area."

RE: excerpt from: *Operations Manual - New York World's Fair 1964-1965 Corporation*



Above – aerial view of Unisphere showing light towers

Left – model of light tower



Like Balancing a Beach Ball on a Golf Tee

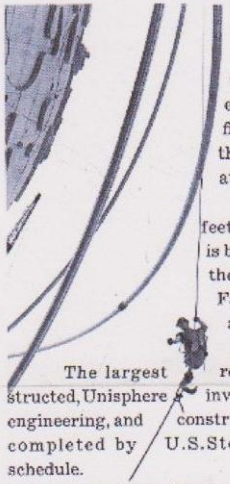
Besides resisting plus 100-mph winds and corrosion, about 1,500 unknown factors required resolution in order to determine unit stresses. A complex structure may require thirty to forty *simultaneous equations* to solve – Unisphere required 670 for just one of three sets of calculations. Without the aid of computers, it would have taken years to solve such complex equations, but with the use of advanced electronic computers the calculations were dome in a matter of minutes and the answers obtained in a few weeks. The engineers at USS had the kind of experience necessary to design such a complex structure as Unisphere represented but despite this expertise, innovative new methods of fabricating and erecting the structure needed to be adopted. Support/s needed to sync with the placement of meridians and parallels ultimately forming an open "bowl" (for the southern hemisphere). USS "T-1" steel bolts were used to secure Unisphere to its 20-foot diameter USS "Cor-Ten" high-strength steel base. Type 304L stainless steel was used for the superstructure.

Building a Unisphere

USS

How U. S. Steel innovated the largest earth model in history

When the final section of Unisphere was hoisted into place, a "shelf man" shouted good news from his perch on the equator: the giant pieces of this twelve-story stainless steel "world" fit precisely as planned.



The largest replica of the earth ever constructed, Unisphere involved unprecedented design, engineering, and construction problems; yet it was completed by U.S.Steel five months ahead of schedule.

The pieces *had* to fit: there wasn't a replacement part on earth, because this was the first time in history that anything like Unisphere had been attempted.

Unisphere, which towers 140 feet over a circular reflecting pool, is being presented by U.S. Steel to the 1964-1965 New York World's Fair as the symbol of the Fair and as a permanent monument for Flushing Meadows Park.

A mile and a half of meridians, parallels, and orbit rings frame this stainless steel planet and support its continents. All told, more than 500 major structural pieces were assembled to mount a 120-foot diameter armillary sphere on a 20-foot base, at a total weight of 900,000 pounds.

All this stands as an open sculpture with virtually every part exposed: exposed to view, and exposed to rain, ice, salt-laden dampness, and the stiff gales that sweep across Long Island.

For permanent, weatherproof beauty, the designers chose USS 18-8S stainless steel (AISI 304). The three-point base that supports the sphere is USS COR-TEN Steel, a low-alloy high-strength steel that has unusual corrosion resistance. Each corner of the base is anchored to the foundation with ten 2¾-inch diameter bolts of USS "T-1" Steel, the remarkable constructional alloy steel with a minimum yield strength of 100,000 pounds per square inch that can create up to 50 per cent savings in weight.

Structural support presented unusual problems. The spherical shape would impose enormous loads on curving structural members. Yet these members could not be thick and could not be cross-braced without detracting from Unisphere's beauty. To fulfill the design concept, slim meridians and parallels had to be spaced according to map-making custom rather than engineering expediency and had to carry irregularly shaped, irregularly spaced land masses. Even the pedestal that would support the entire sphere had to be gracefully slender.

But the most formidable problem was wind load. In shaping convex land masses to fit the curvature of the earth, U.S.Steel knew that concave inner surfaces would trap wind like the spinnaker of a sailboat. Wind tunnel tests of a scale model confirmed the enormity of this problem: at wind velocity of 110 miles per hour, there would be a total drag of 396,000 pounds.

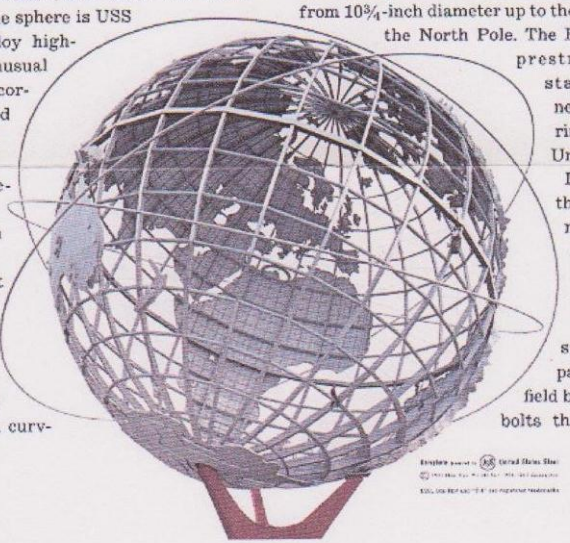
All of these wind and weight factors had to be translated into a stress distribution pattern that would indicate what structural strength each section would require: a computation so complex that 670 simultaneous equations had to be solved for just one of three sets of calculations. U.S.Steel called on advanced computing equipment to supply the answers in a matter of weeks; without high-speed computers, it would have taken years.

In its final design, Unisphere has ample strength and stability to stand up in a hurricane.

North-South meridians are hollow rectangular sections, 6 inches wide and 12 inches deep above the Equator, and 10 inches wide by 14 inches deep below the Equator. Parallels are round tubes from 10¾-inch diameter up to the Equator, to 6-inch near the North Pole. The Equator is an H-section prestressed by 15/16-inch stainless steel guys connected to a floating tension ring at the center of the Unisphere.

In the area surrounding the main supports, both meridians and parallels are heavy box sections which taper to meet the normal size members.

In the Northern Hemisphere, connections of parallels to meridians are field bolted with stainless steel bolts through shop-welded cap



plates. All connections for the Southern Hemisphere are field welded. Three stylized orbit rings that circle Unisphere are anchored by thin stainless steel aircraft cable, barely visible from the ground.

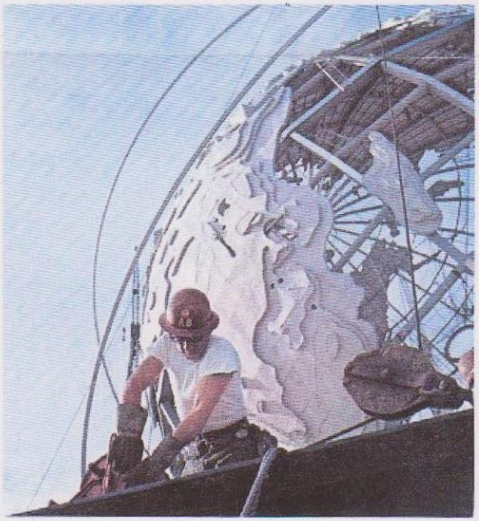
These structural sections were fabricated by U.S.Steel at Ambridge, Pa. Meridian pieces were butt-welded together in the shop, and each meridian quadrant—the quarter circle from equator to pole—was shipped in two sections. Already installed inside these members were tubular and plate diaphragms positioned for the 360 intersections of meridian and parallel.

Land masses were fabricated by U.S.Steel at Harrisburg, Pa., after careful studies to find what surface texture would look best at viewing distances of 90 feet and more. Continents and major islands are made of textured stainless steel sheets, mounted on a framework of channels and angles. Land elevations are built up in layer cake fashion, like a huge contour map. Since every coastline and contour line is irregular and every land mass must fit the earth's curvature, fabrication became a highly complex task in which no section was square in any plane.

From beginning to end, Unisphere demanded entirely new techniques to solve entirely new problems, even after the unprecedented design and engineering questions had been settled. A few examples:

Standard bending equipment wouldn't curve the orbital rings without crimping or defacing them, so U.S.Steel engineers designed a die that would do the job. Meridian sections had to be welded together *after* they were polished, so the engineers worked out a method to remove discoloration caused by welding. Working with polished sections during fabrication also required a whole new system of materials handling, using vacuum lifting equipment, protective tapes, and nylon slings.

After tests of various surface materials including stainless steel mesh, land masses were made of a new nondirectional patterned stainless steel sheet designed especially for Unisphere. In construction, meridians and parallels were connected by what is probably the first application of inert gas shielded short-circuited arc welding to heavy stainless steel structural members in the field. And U.S.Steel construction engineers had to invent some new hoisting techniques: to raise large curved sections of the continents into place, they made a lift from a thirty-foot piling section, angles, clamps, and a rolling hitch; to position the huge orbital rings aloft, they welded each ring completely together, surrounding the sphere on the ground, then used four cranes to lift it in one piece and hold it until anchor cables were placed.



At no point could U.S.Steel engineers go to the book for their answers. There wasn't any book. But when the time came to put the pieces together, they fit. They fit each other, they fit the theme of the New York World's Fair, and they fit the modern notion that no structural design problem is too tough to solve, given the right technical know-how, the right facilities, and the right steels.

"To quote Mr. Robert Moses, president, 1964-1965 New York World's Fair: What stronger, more durable, and more appropriate metal could be thought of than stainless steel? And what builder more imaginative and competent than United States Steel?"

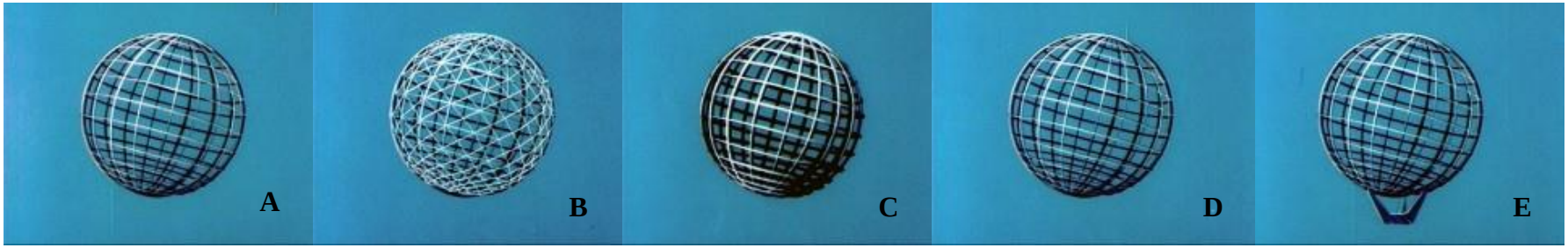
United States Steel USS

Assignment: UNISPHERE

Assignment: For purposes of monumental beauty only, complete a feasible design for a stainless steel structure as high as a 12-story building.

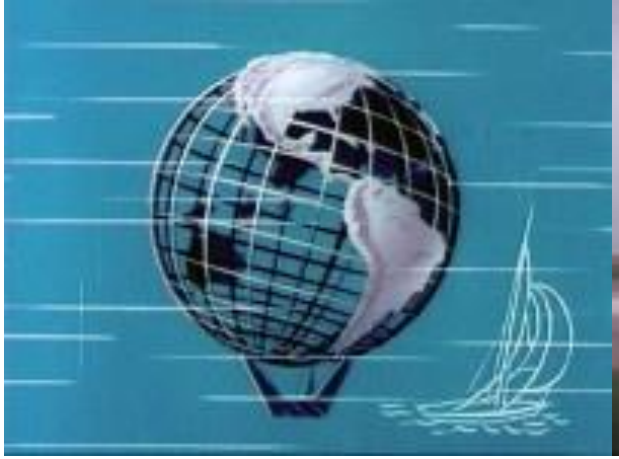
RE: USS assignment memorandum to their engineering dept.

Design



***"If Unisphere were to be harmonious when viewed from any angle* (A) *no diagonal bracing could be used between parallels and meridians* (B). *Take away such bracing and conventional structural members normally get heavier and bulky* (C). *But each structural member of Unisphere must appear light and attractive* (D). *Perched atop a sculptured base, which must suggest lightness and grace* (E).**

RE: excerpt from *Biggest World on Earth*



"Unisphere would have to withstand the enormous and changing forces of the wind as well as its own weight. The continents and islands would act like sails and wind pressure could exert forces nearly equal to the weight of the entire structure. Because Unisphere is open and its land areas irregular in size and position, the wind blows on either the outside or the inside; the front of a continent or its back. No past experience was available to calculate the wind forces because no one had ever built a Unisphere before or anything like it!"

RE: excerpt from *Biggest World on Earth*

"To meet this phase of the challenge, exhaustive wind tunnel tests were conducted at the University of Maryland. From these aerodynamic tests came the data that made design analysis possible. The mathematics of analysis posed its own peculiar challenge. Unisphere had to be completed by April, 1964. High-speed computers were used to solve the thousands of problems that would have taken years if attempted manually."

RE: excerpt from *Biggest World on Earth*

"In the design of this bridge, for instance, it was necessary to solve only 35 simultaneous equations. In Unisphere, one problem alone required a solution of 670 simultaneous equations."

RE: excerpt from *Biggest World on Earth*

Fabrication

Meridians were hollow rectangular sections; six-inches wide by twelve-inches deep above the equator, ten-inches wide by fourteen inches wide below the equator. Parallels consisted of steel tubing varying in diameter from 10.75-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 Unisphere. In the Northern Hemisphere, parallels and meridians were attached with stainless steel bolts through welded cap plates. In the Southern Hemisphere parallels and meridians were welded.



"Designed, analyzed and approved, fabrication and construction could begin. Thousands of different pieces had to be cut, formed, assembled and welded. Box girders. Tubes Beams. Channels. Angles. Special automatic and manual welding methods were employed. An upper meridian section is welded."

RE: excerpt from *Biggest World on Earth*

"Land areas were fabricated and assembled on this turtle-shaped fitting table which duplicated the exact curvature of Unisphere. Conformed to United States Army Corps of Engineers' contour maps, mountains and valleys are shown in exaggerated relief in order to achieve effective visualization of elevation."

RE: excerpt from *Biggest World on Earth*

Transportation

"Wrapped to protect the stainless beauty, sections were shipped by rail and highway to Unisphere's site."

RE: excerpt from *Biggest World on Earth*

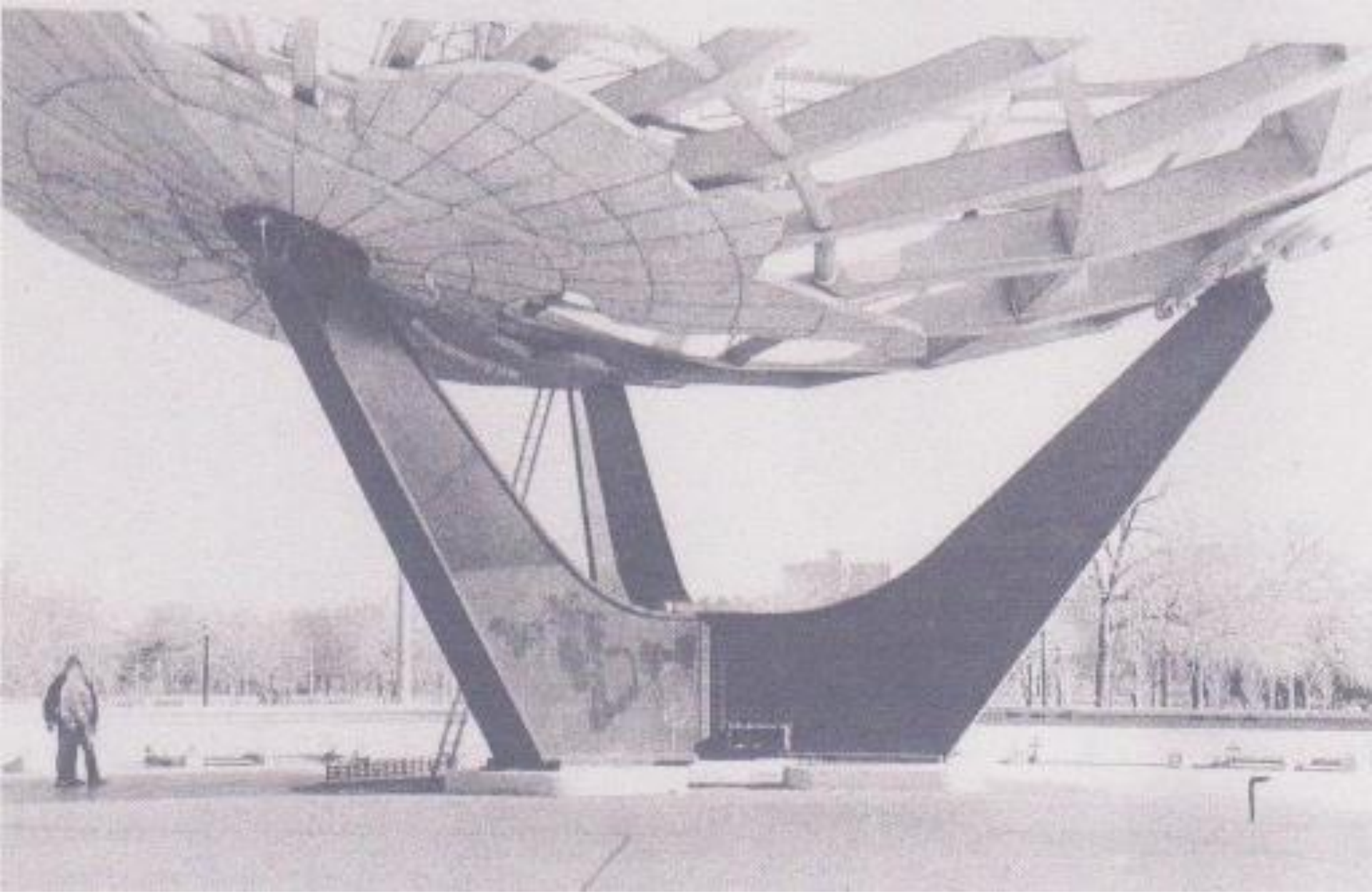
The Base

"Just ahead of the construction of the pedestal, thirty USS T-1 steel anchor bolts are set and a concrete base poured around them."

RE: excerpt from *Biggest World on Earth*

March 6th 1963

The first (of three) sections for the twenty-ton tripod base of Unisphere is maneuvered into place. The steel for Unisphere was fabricated in Harrisburg and Ambridge, Pennsylvania and shipped by rail and truck to the Flushing Meadows site.



The Southern Hemisphere

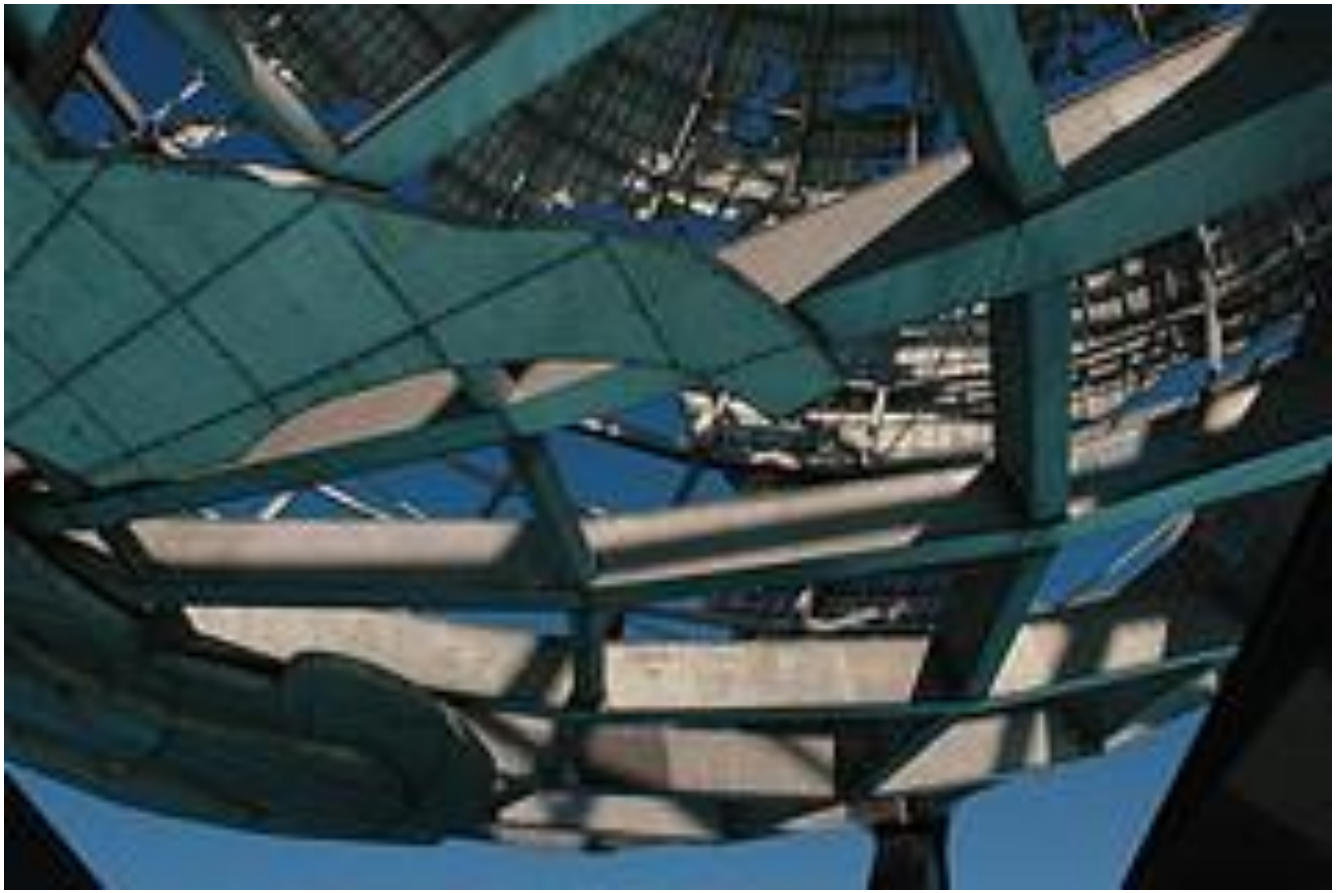
First structural member set in-place was the South Pole



Next, one of Unisphere's largest members, a lower meridian section was fit into the South Pole and laid across the pedestal.

Actually welded girders, the lower meridians support the entire structure. At the site, many of the members were field-welded into sub-assemblies nick-named “orange peel sections.”

“Orange Peel” Section



To provide support and access, a temporary mast was placed along Unisphere's Polar axis. When the structure was complete, Unisphere became self-supporting and the mast was removed.



Equator (H-Beams) being set in-place

Like a giant bowl, the Southern Hemisphere was completed in just eighty-three days.

The Northern Hemisphere

The bowl became a world of stainless steel when the last, flag-topped section was set in place.

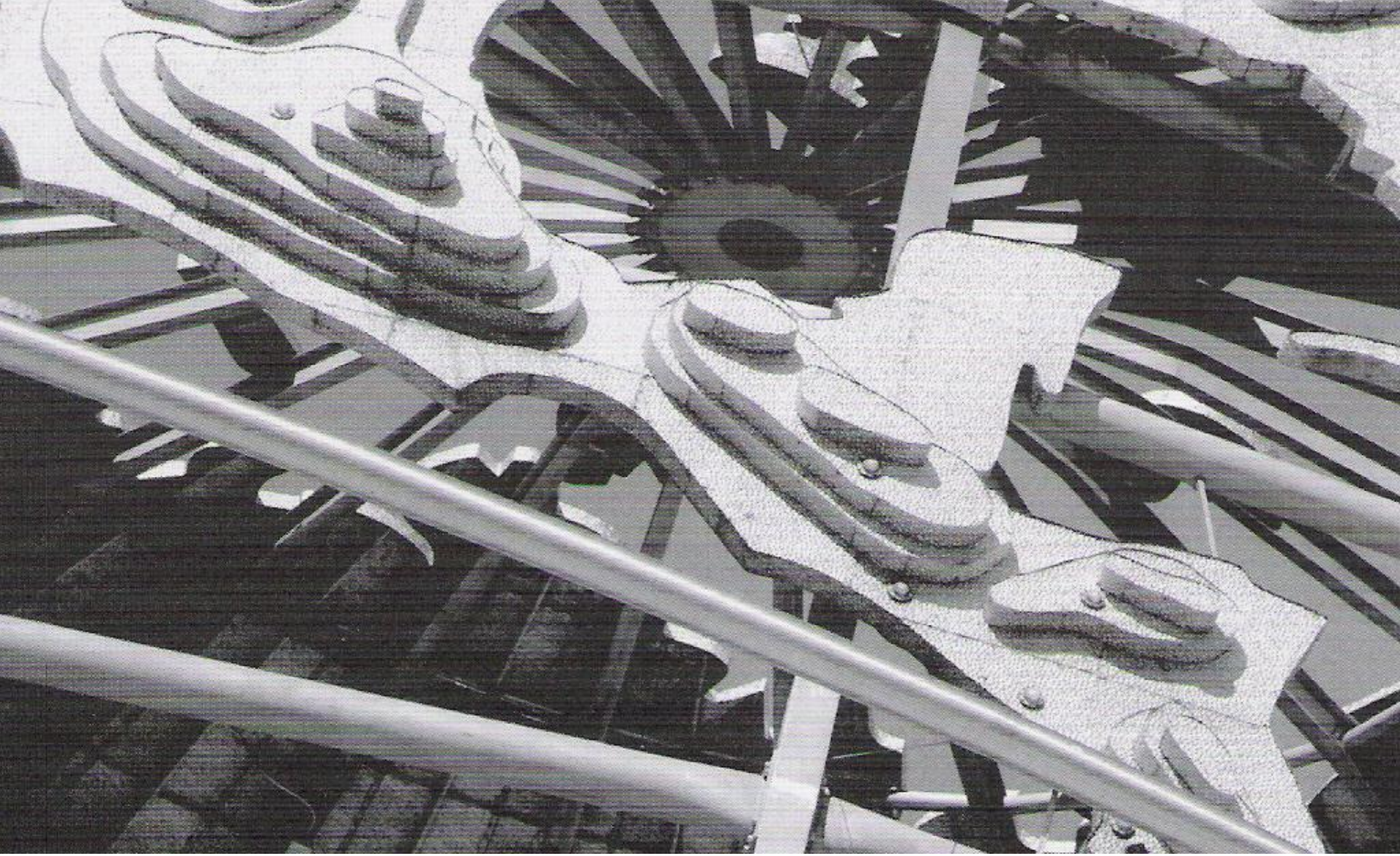
The Land Masses



With the two hemispheres complete, the addition of land areas could begin. It was delicate work and not a job for windy days since the sections acted like big kites, catching the wind. A thirty-foot piling section with angles, clamps and a rolling hitch was used to raise the land masses into position via crane/s. Fitting the land masses with their irregular coastlines and contour lines to the curvature of the sphere was a complex task since no section was square in plane.

To counter the effect of wind drag, the land masses (continents) were mounted on a framework of steel channels and angles to allow Unisphere to resist wind speeds in excess of 110-mph.

A Red-Tail Hawk nests among the simulated mountains of Unisphere. Note the textured skin of the stainless steel. This prevented a mirror-effect from the land masses.



Central America and its mountain ranges (close-up view)

An American flag flutters high atop the North Pole marking the completion of the land masses (continents and islands)

The Orbit Rings

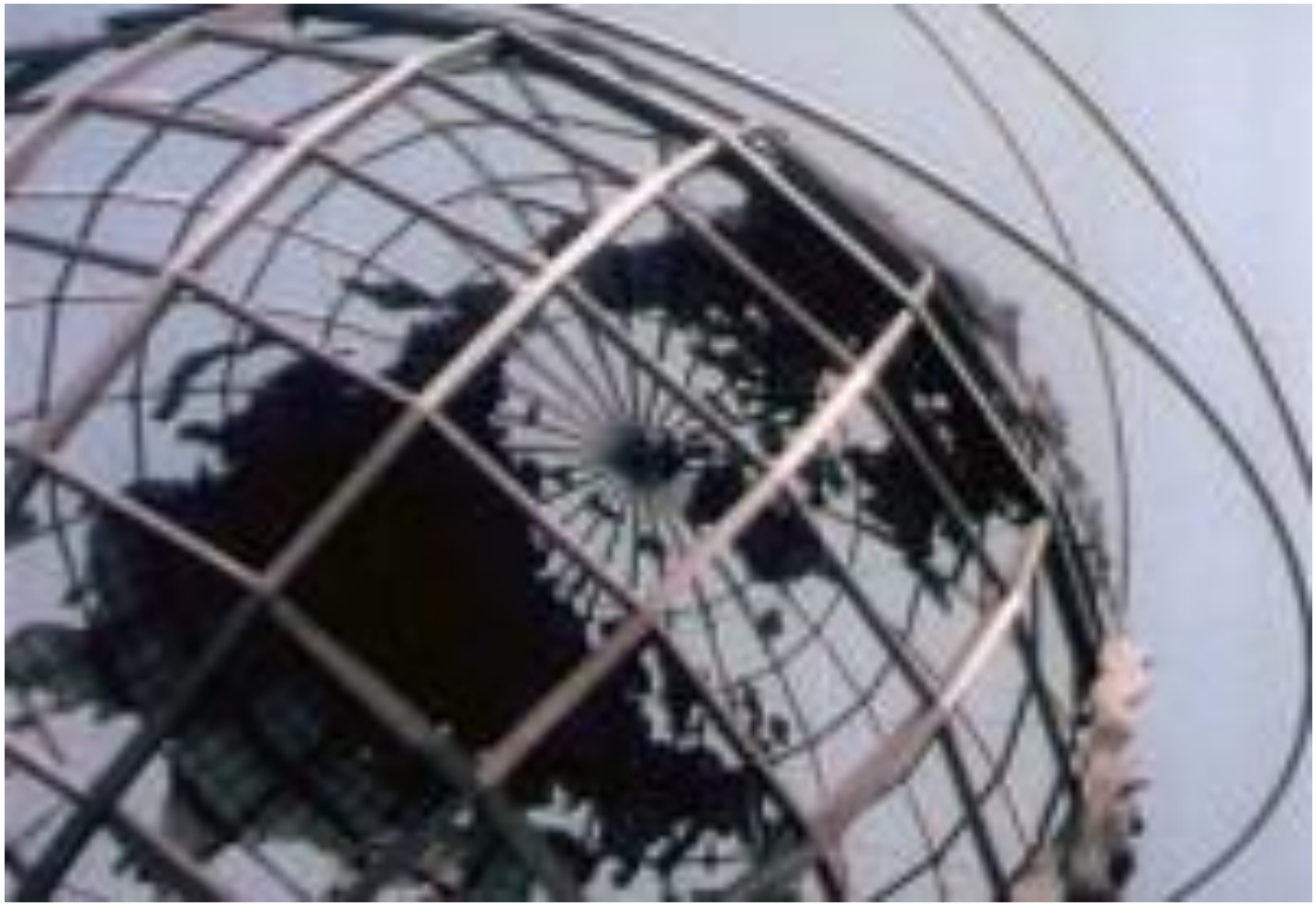
Weighing three-tons each, the orbit rings were field-welded into a continuous single piece, 450-feet around. Special care was taken to protect the polished surface.



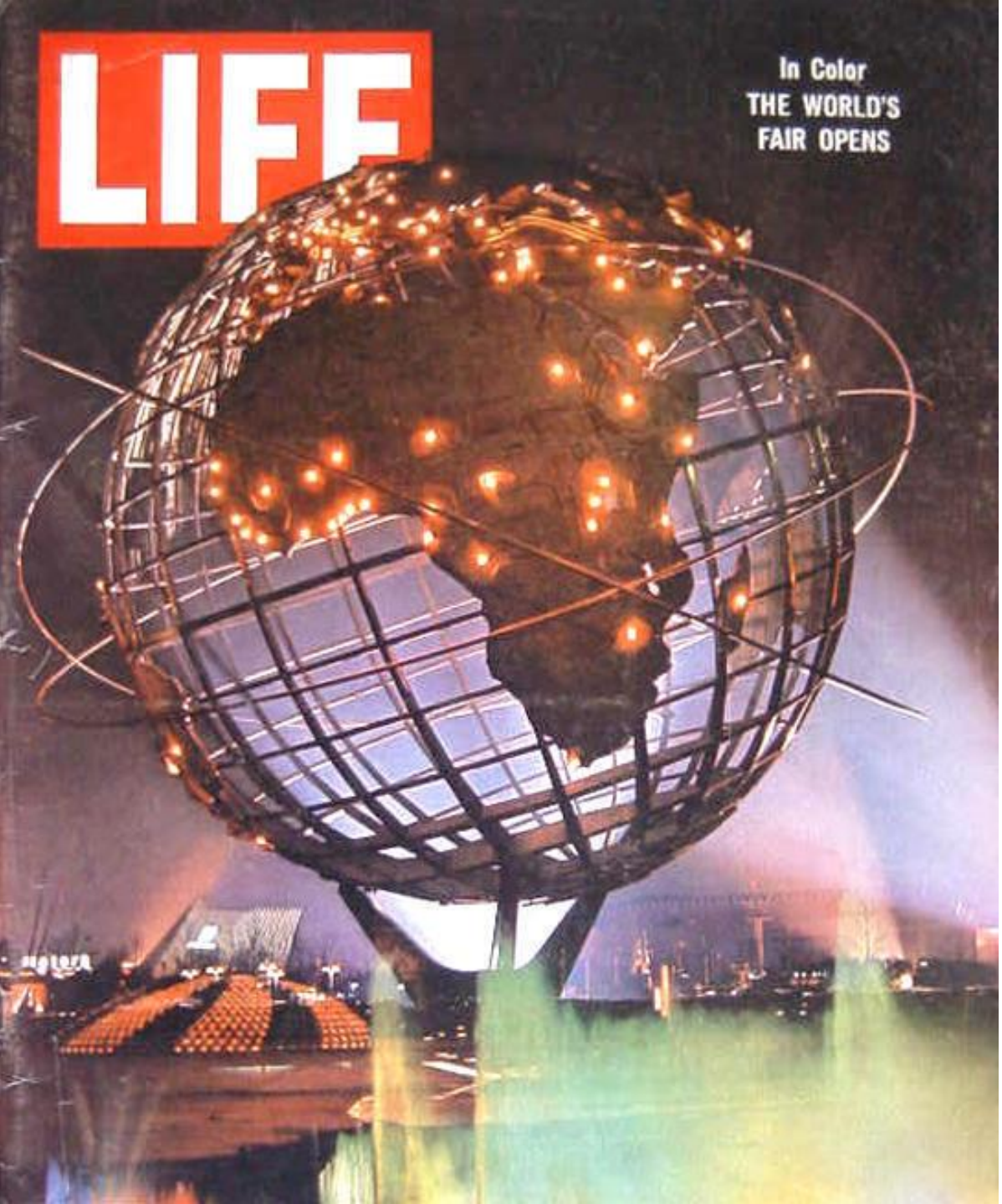

To prevent bending, each orbit ring was lifted by four cranes, each attached at three points. An intricate communications plan and network linked all hands. Precision teamwork meant that the orbit rings rose slowly and evenly. To position the orbital rings, each one was welded on the ground forming one uniform ring then lifted by four cranes that held it in position while the anchoring cables were installed.



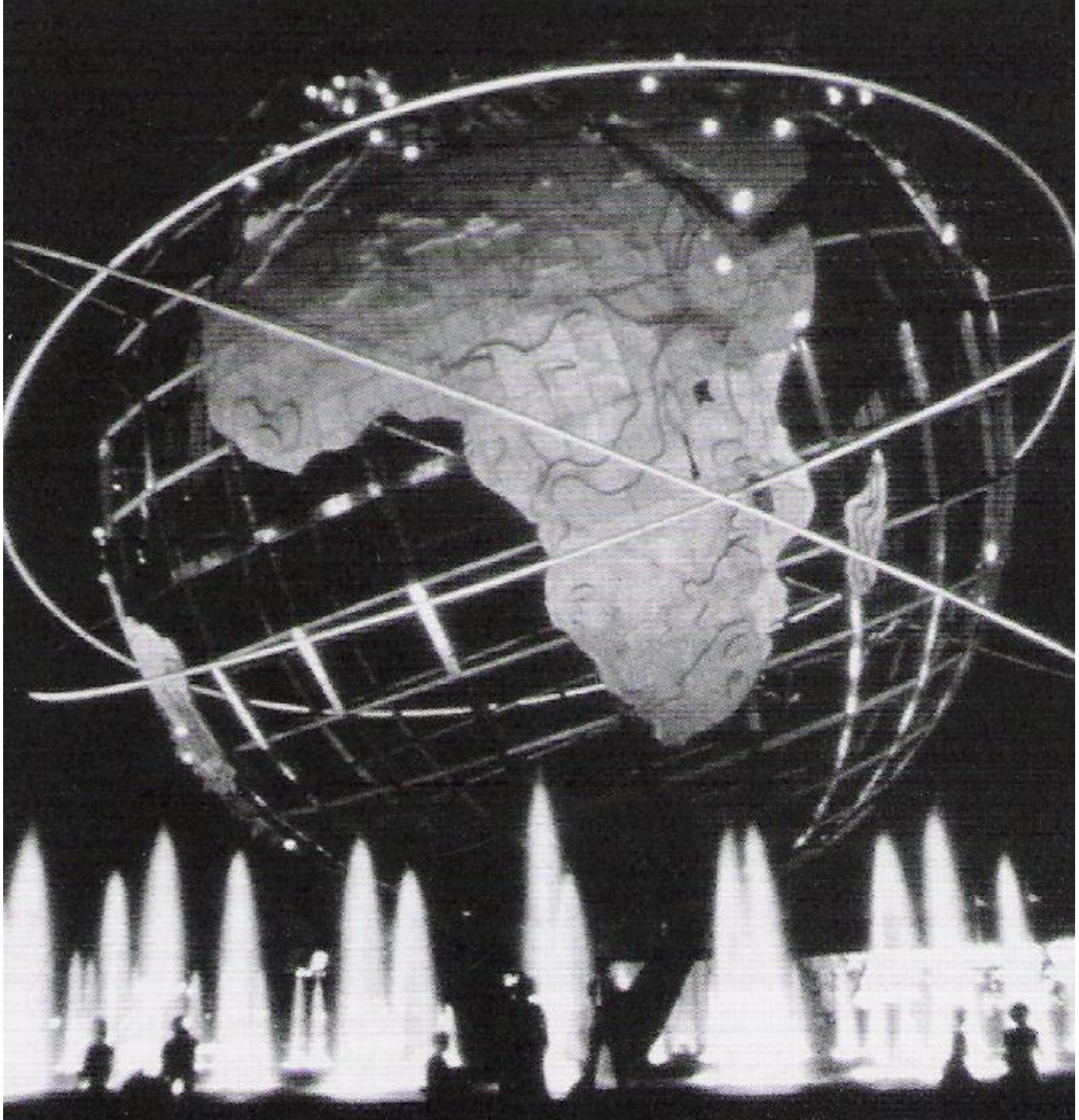
Fifty stainless steel guy wires connect each orbit ring to Unisphere, just as spokes tie a bicycle wheel's rim to its axle. Strong and light, they are difficult to see making it appear that the orbit rings float in space.



Only 162 days after construction began, Unisphere was complete. It cost $2 million and its framework contained 7,700-feet of stainless steel and, amazingly, it was built without any serious injury. To honor the fifty Mohawk ironworkers who assembled Unisphere, one additional light was placed at the location of the *Caughnawage Indian Reservation* (near Montreal, Canada).



During the World's Fair, dramatic night lighting gave the effect of sunrise moving over the surface of the globe. Along with one light for the *Caughnawage Indian Reservation*, the capitals of nations were marked by uniquely designed lights that held four bulbs each. When one would burn out, another would rotate in place so that the bulbs would not have to be changed during the two-year run of the Fair.



LIGHT for the WORLD'S CAPITOLS

Designed for a two year life-plus

Manufactured by Circle-D for American Bridge Div. of United States Steel. This unusual light is really 4 quartz lamps under a special heat and weather resistant dome together with associated circuitory in an all stainless steel sealed housing. In use it spots the World's Capitols in the Unisphere and is designed by the American Bridge Division Electrical Engineers to operate service free for the duration of the Fair. When one lamp completes its life span, the next lamp in sequence takes over.

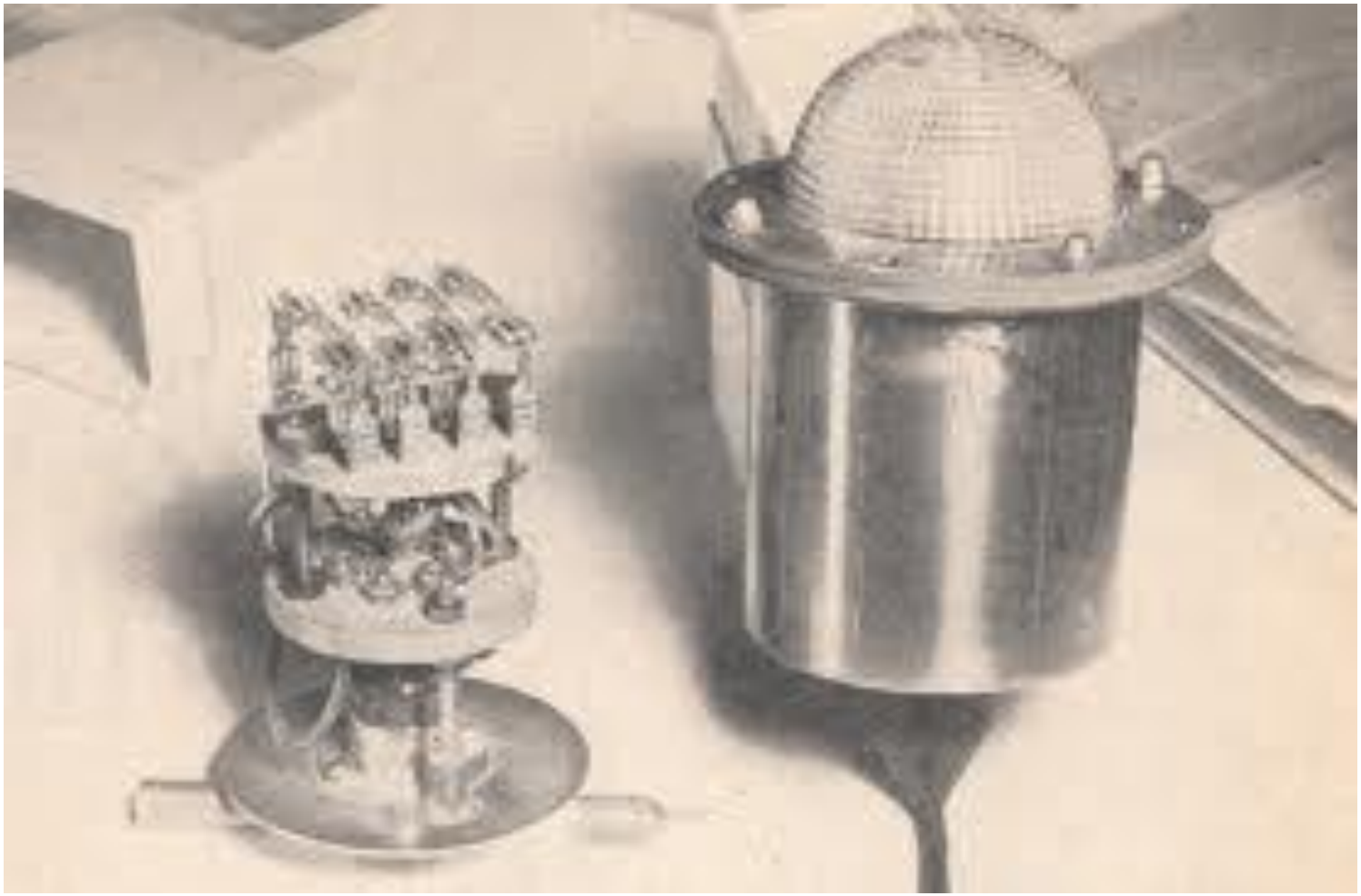
We at Circle-D feel a sense of pride when companies like American Bridge entrust us with the manufacture of these special lights. If you have a lighting problem--call us, we may have the answer already, -- if not, our years of lighting experience will give us a head start.

Courtesy of American Bridge-United States Steel Company.

Send For New Catalog

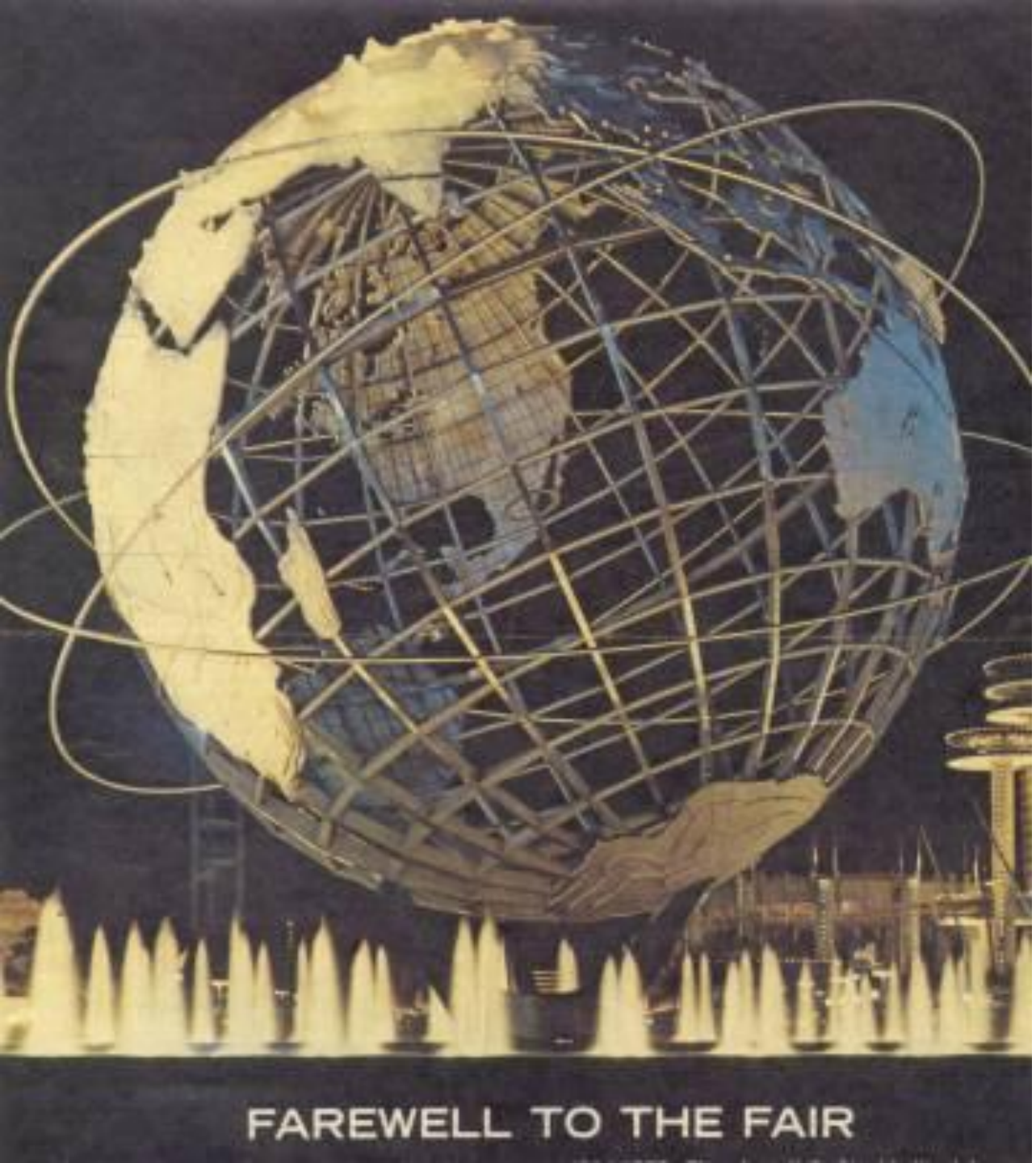
CIRCLE-D-LIGHTS

NATALE MACHINE & TOOL CO. CARLSTADT, N. J.



Part 6

Farewell to the Fair



"Standing out sharply against the night sky, this spectacularly illuminated Unisphere set in the Fountain of the Continents provides our Scrapbook with its parting shot on this, the closing day of the New York World's Fair of 1964-1965. The giant U.S. Steel-built globe will stay on as a permanent feature of a park to be developed on the Fair site. Long may this symbolic World recall to millions of fairgoers the good old days they enjoyed there!"

***New York Sunday News* - November 7th 1965** 266

Miracle in the Meadow

"It will remain as a permanent reminder of man's aspirations for peace through understanding, and a symbol of his achievements in an expanding universe. Unisphere is truly the miracle in the meadow."

RE: U.S. Steel advertisement

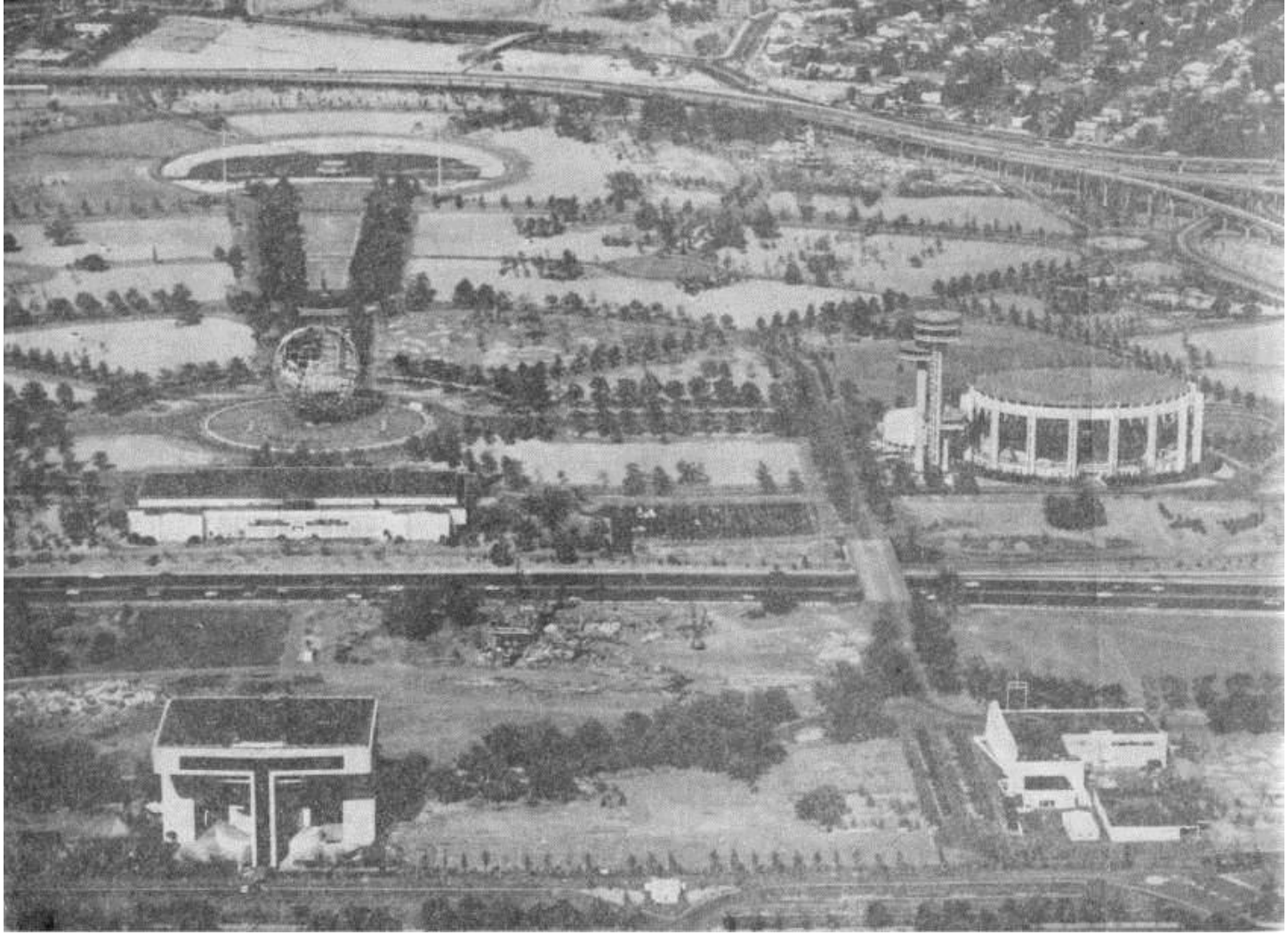
"Built to remain as a permanent feature of the park, reminding succeeding generations of a pageant of surpassing interest and significance."

Robert Moses

RE: Unisphere

At the conclusion of the fair, there was a $23 million deficit and $11.6 million available. The latter would be used to clean-up the fair site, demolish pavilions of bankrupt exhibitors and restore Flushing Meadows Park to an adaptation of Clarke's original Beaux-Arts design. Robert Moses' dream of a great new city park in the twilight of his career was, however, a bust. In 1967, the restored Flushing Meadows-Corona Park opened to the public. As a permanent element of the park, Unisphere was visible to motorists traveling along the many nearby highways and even airline passengers knew it at a glance when taking off or landing from LaGuardia Airport (on Flushing Bay). It immediately became the most famous landmark in the Borough of Queens. Though it was made of durable materials, due to a lack of maintenance the structure was covered with grime, the fountains no longer worked and the pool floor and bulkhead were covered with graffiti by the 1970s. In 1989, the year of both the 25th Anniversary of the '64/65 NYWF and the 50th Anniversary of the '39/40 NYWF, a $3.6 million rehabilitation project for Flushing Meadows Corona Park - inclusive of Unisphere, began.


THE END:
WRECKERS CONSIGN WORLD'S FAIR TO OBLIVION



The fair grounds (looking east) ca. early 1967. On June 3rd 1967, the restored Flushing Meadows-Corona Park was returned to the NYC Dept. of Parks. The Fair Corp. had taken possession of the park in 1960.

"It is a source of regret to us that the Fair can not complete this great park so that nothing further will be required for many years. Every step we are taking however, follows an ultimate plan which is realizable in the not distant future... We believe it is no exaggeration to say that two World's Fairs have produced here in the very center of New York, on the scene of a notorious ash dump, one of the very great municipal parks of our country."

Robert Moses

***Post-Fair Engineering Report* - July 23rd 1965**

Gilmore Clarke's Post-Fair Site Plan for *Flushing Meadows-Corona Park*. The black dot was the location of the proposed Science Center

Structural repairs to Unisphere included;

- **Replacement of inner/outer cables**
- **Replacement of all loose rivets**
- **Tightening and/or replacing all nuts and bolts**

Using a special water-based solution, the globe was cleaned using high-pressure hoses. All ninety-six water jets in the fountain were restored and two new 200-HP pumps and a timer were installed. The work was completed on May 31st 1994. In recognition of it special character and unique place in Queens/NYC history, Unisphere and its surrounding pool were designated an official landmark on May 10th 1995 by the City of New York's *Landmarks Preservation Commission* (LPC).

A Place in History

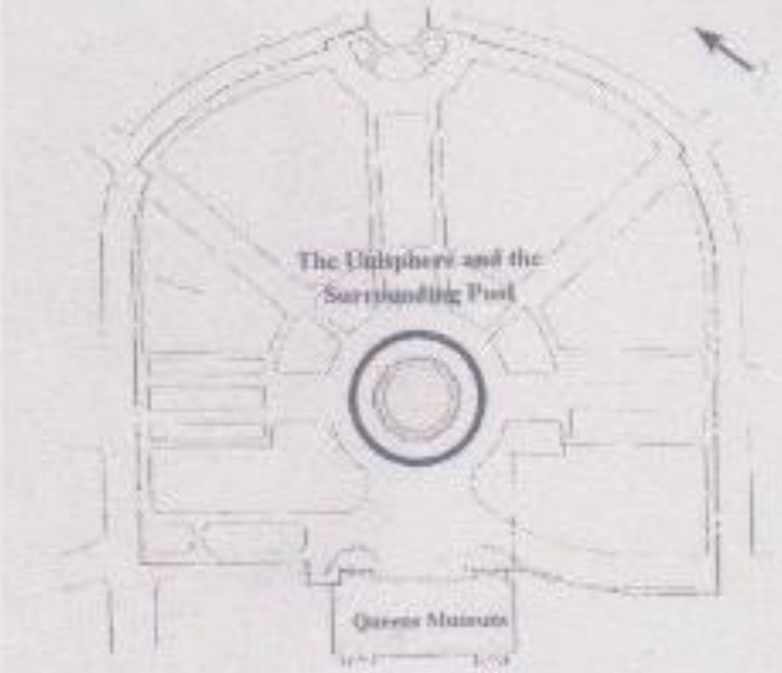
FINDINGS AND DESIGNATION

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.

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



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

Designated May 10, 1995

Legacy

Postage Stamps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AIR MAIL


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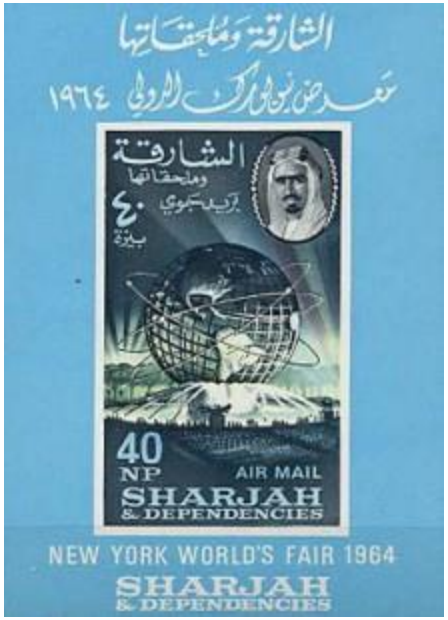
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NEW YORK WORLD'S FAIR 1964
SHARJAH
& DEPENDENCIES


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PANAMA
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1965-1964
ROYAUME DU MAROC
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Art


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Postcards

UNISPHERE®
Night Scene
New York World's Fair 1964-1965

The Unisphere® is the theme symbol of the Fair. Its top is 140 feet above ground level and the globe is 120 feet in diameter with an open grid of latitudes and longitudes supporting the land masses. The reflecting pool beneath is 310 feet in diameter. It dramatizes the interrelation of the peoples of the world and their yearning for "Peace through Understanding."

UNISPHERE®

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OFFICIAL World's Fair Post Cards by Dexter, West Nyack, N. Y.

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UNISPHERE®

New York World's Fair 1964-1965

"Peace through Understanding"

The Fountains of the Fairs at night create a beautiful vista of lighted streams of water splashing into a reflecting pool. In the background, The Rocket Thrower is silhouetted against the Unisphere®.

UNISPHERE®

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DT-92014-B


NEW YORK
WORLD'S FAIR
1964-1965


NEW YORK
WORLD'S FAIR
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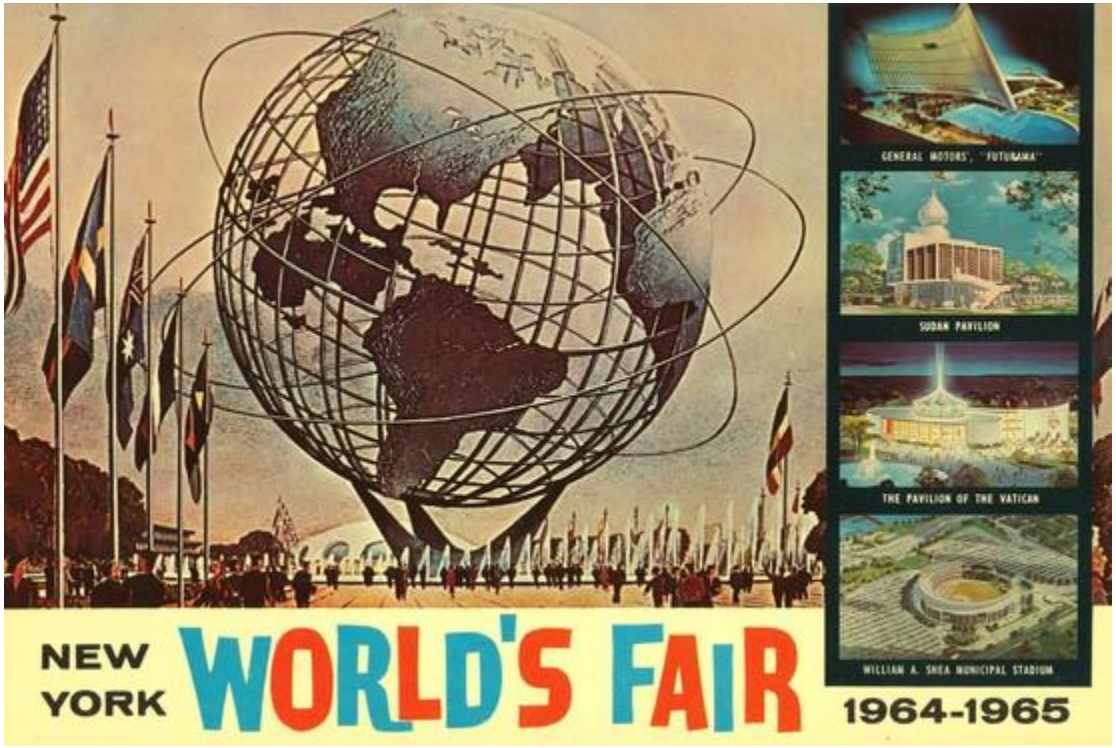
WORLD'S FAIR
NEW YORK
1964-1965


GENERAL MOTORS' "FUTURAMA"
SUDAN PAVILION
THE PAVILION OF THE VATICAN
WILLIAM A. SHEA MUNICIPAL STADIUM
NEW YORK WORLD'S FAIR
1964-1965


NEW YORK
WORLD'S FAIR
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WORLD'S FAIR

Unisphere presented by USS United States Steel