The World of Tomorrow

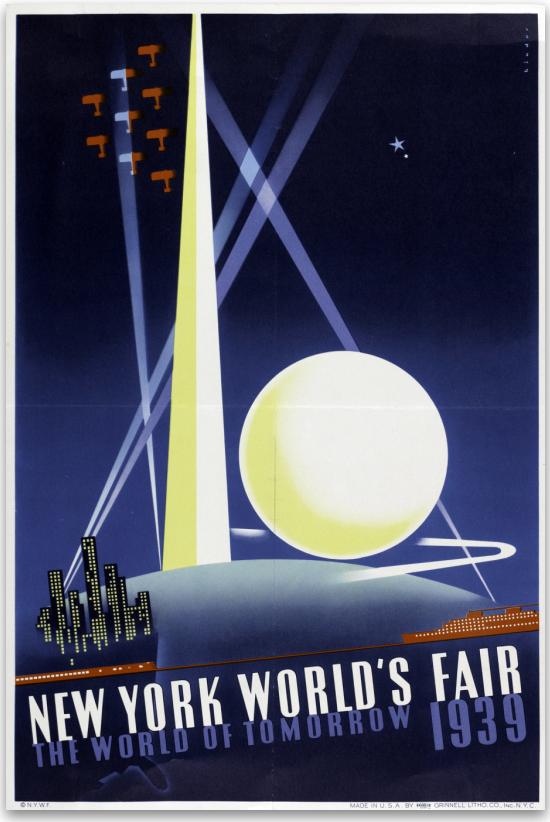
Technology was how "The World of Tomorrow" would be built — the theme of the 1939 World's Fair. A new era was around the next exhibit.

"I think that there are moments where you can see the world turning from what it is into what it will be. For me, the New York World's Fair is such a moment."

And the technology was gorgeous to behold. "Art made technology beautiful. Technology made the future beautiful," wrote David Gelernter in *1939: The Lost World of the Fair*. No one had imagined a future that looked like that. And you got a pin when you left: "I have seen the future."

New York businessmen dreamed up a world's fair to bring visitors and boost the local economy. It was cock-eyed American optimism, and a commercial gamble at the end of an economic depression when poor had meant you were hungry. Corporations and industries invested heavily, hoping to convince consumers that they had command and control of the science and technology that would take them to tomorrow. Planners invested in making people believe in new communities — "satellite suburbs," "townless highways," "motorways that weave together city and countryside" and cities where people worked but no one actually lived. Ordinary life would be better and easier, and it was all within their grasp — or so the people were told.

Mr. Swinburne, the only real science teacher in our school, was the only person I knew who had seen the 1939 New York World's Fair. It seemed improbable that he had been there. It was more than 2000 miles from our small town in Utah to New York City, where tens of millions of people went to the fair. It was said the mayor had given speeches in four or five languages.



But Mr. Swinburne had a visitor's guide, postcards, snapshots and his word for it. He went to the fair, he said, because student science clubs put up exhibits and did demonstrations of how science works. He believed in science. He was a Progressive.

Twenty years later, World War II and the Atomic Age had broken some promises, changed things, but he still loved the fair.

The story Mr. Swinburne and his guidebook told were previews of the future as it was imagined in 1939 — a "not-to-distant" future of 1960. It still seemed exciting to me. Tomorrow was represented in fantastically designed and over-sized buildings, great halls and exhibits, bridges, lagoons, elevated roadways, a talking robot and airplanes that would fly to Venus one day. Things were sleek and streamlined, and seemed ready to go faster than ever. Things were bigger than ever. Even in the Atomic Age, I liked machines. I loved that designers, artists and illustrators could make them beautiful.

As I look at it now, it has a hint of fairy tale. *Once upon a time*, it was heroic to be the biggest and the fastest, and modern engineering was romantic. Technology was not yet a villain. A begging question is this: were they naive in those times, or were they simply *grateful* for technology, and not *remorseful* about technology? There was a pragmatic and emotional attachment to machines that we generally lack nowadays.

"That's what tomorrow is going to be like. Gee! And I'm going to live in it!

— Carl Sagan, recalling his childhood visit to the New York World's Fair

The Birth of a Fair

There are conflicting creation stories for the 1939 World's Fair. Both seem to involve a small group of New York business tycoons — a distiller, a real estate man, and a retailer in one version — who wanted to attract visitors who would spend money. Where the stories agree is that on September 17, 1935, the idea was presented to New York City's, mayor, Fiorello La Guardia, and the governor, Herbert Lehman, at a Manhattan dinner. Their response was enthusiastic.

A few days later the project was publicly announced. A committee was formed, with subcommittees for design and theme. Architects and designers got involved. But a businessman proposed the phrase "The World of Tomorrow."

"The fair will exhibit the most promising developments of ideas, products, services, and social factors of the present day in such a fashion that the visitor may get a vision of what he could obtain for himself, and for his community, by intelligent, co-operative planning toward the better life of the future."

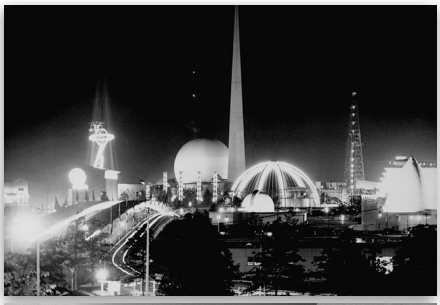
Robert Moses, the "master builder"and sometimes antagonizer of mid-20th century New York City, was also enthusiastic, "By God, that *is* a great idea." He liked a big project that he could deliver, and approved 1200 acres of wetland and ash dump, immortalized in *The Great Gatsby* as the "Valley of Ashes," as the site for the fair. He dredged and filled, he diverted a river, and it became Flushing Meadows Park, home to a world of tomorrow. Corporations, civic groups, organizations and governments from around the world arrived to build extraordinary pavilions and set up exhibitions. The Fair Committee claimed that 90 percent of the world's population would be represented. Joseph Stalin was persuaded to put up a Russian pavilion. Germany declined (not surprisingly).

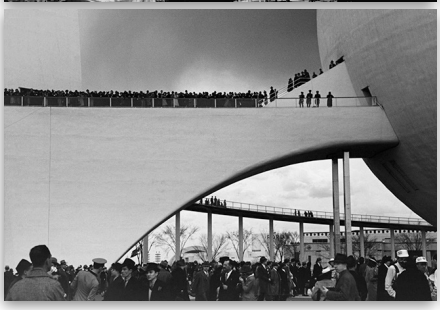
Groups formed to split the costs. Others, like General Motors, went alone, spending $5,000,000 on the most expensive pavilion at the fair. New York state invested $6,200,000 and built an amphitheater and a pavilion. The federal government spent $3,500,000 and put up a pavilion. Moses spent $2,000,000 on parks. Bankers ponied up $1,600,000 just to get things started and to have a say in such a grand event.

"...that mini-utopia in Queens, the past we can never live up to again."

“…a romantic saga of modern engineering.”

— 1939 *Visitor Guide*





— the fair at night, Hall of Electrical Living, entering the Perisphere, Trylon and Perisphere

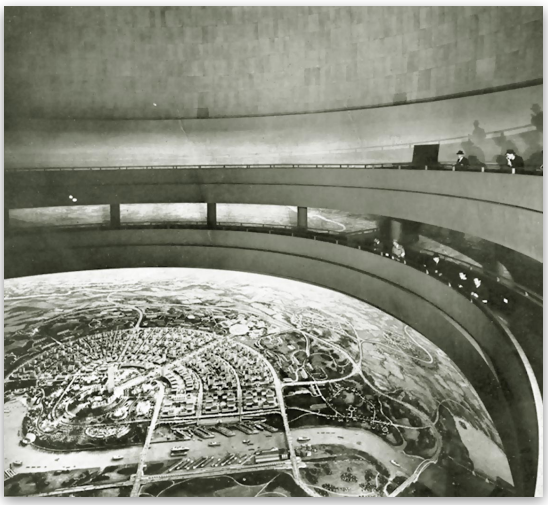
Spike and Ball

The 700-foot Trylon and 200-foot Perisphere — the “spike and ball,” to less reverent New Yorkers — became iconic symbols of the fair. Inside the Perisphere, in an auditorium the size of Radio City Music Hall, fair-goers on moving balconies looked down on a grand diorama called Democracity — a city of tomorrow with elevated streets, tall buildings and plenty of parks.

"Sometimes I lie awake in the dark and try to recapture the vision and the sound of The World of Tomorrow. I try to remember how the pastel lighting glowed on Mad Meadow in Flushing: soft greens, orange, yellow, and red; blue moon-glow on the Perisphere and on the ghostly soaring Trylon.”

— *The Eight Million*, Meyer Berger

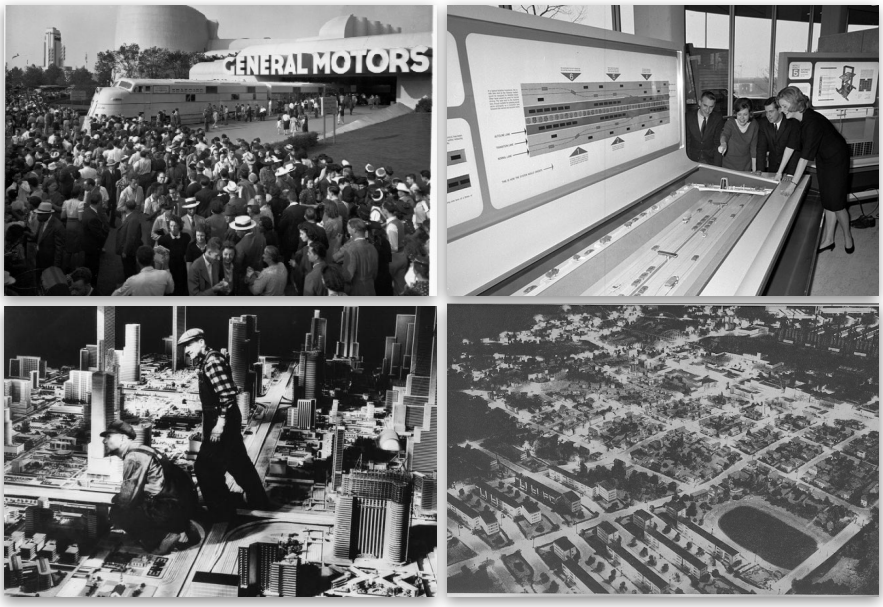
Democracity was a view of what America could build, and would be soon. A modern highway linking a dense, non-residential urban core to suburban Pleasantvilles and industrial-residential Millvilles. Tradespeople starred in a slideshow projected on the domed ceiling and narrated by Jason Robards. It was a herald for the postwar realities of declining urban and rural populations, booming suburbs of ranch-style houses with two-car garages, commuting and an interstate system of superhighways.



DEMOCRACITY DIAROMA

"…devoted to extraordinary inventions which will enable Man to conquer time and space."

— 1939 Visitor Guide



General Motors, superhighways and Futurama

All eyes to the future," intoned another narrator. The General Motors pavilion and its main feature, a ride called Futurama, were arguably the most memorable of the fair. Moving chairs took visitors on a tour of the largest scale model ever built. It gave them a glimpse at a car-centric world of tomorrow. Highways on which cars would drive themselves ran through "an animated panorama of towns and cities, industrial plants, snow-capped mountains"and into carefully ordered cities of skyscrapers and double-decked streets. These were *transcontinental highways*, and no one had talked much about that. The New York Times scoffed, the US Army did not.

It is "amazing to recognize how central 'the city' was to the 1939 vision of tomorrow," observed sociologist Janet Abu-Lughod. Built things — buildings, bridges, highways, dams — were the landscape that mattered. And it could be changed for the better, "the tools for building tomorrow are all in our hands." It was a constructive view of the world.

Planning was sacred in that world view. The fair featured a film, *The City*, by the American City Planning Institute, with narration by Lewis Mumford and music by Aaron Copeland. It was propaganda. It painted a dark picture of American cities as congested, smelly, dirty and dangerous due to a lack of planning. The rosy picture was of carefully planned and clean suburbs that would supplant unhealthy cities.

"...no city of canyons and gasoline fumes, it is one of simple functional buildings — most of them low — all of them surrounded by green vegetation and clean air. At city where no streets actually intersect, and, therefore, where no traffic accidents occur."

Democracity and Futurama were two of several visually stunning utopias of urban planning. The diorama was one of the most remarkable arts of the fair, and a effective way to present a vision of tomorrow. Fairgoers saw beautiful highways with clover leaf interchanges and tiny General Motors cars carrying people to cities with cloud-piercing skyscrapers. They were informed about future wonders: weather control, robots, atomic energy. Perhaps people then were fascinated, as I have been, by the urban landscape and what it might look like if it were fundamentally changed — by us.

There was no need to question who would build the highways or control all the technology. People kept the technological faith and their confidence in building a modern world. We have a more skeptical and unhappy view of technology these days.

Democracity and Futurama were not the only impressive dioramas. Consolidated Edison had the panoramic City of Light. It was a block-long working model of New York City, with cars crossing bridges and moving elevators in the buildings. The show began with dawn showing the city skyline, progressed through an afternoon thunderstorm and into evening when all the lights came on — thanks to Con Ed.

"Nothing could be so beautiful as the New York skyline.'

IBM presented a diorama that depicted its offices, factories and labs from around the world in one fictional cityscape. It was a "global village." IBM included a technical display in their vision: a Tele-type machine, equipped with a cathode-ray tube, which relayed televisual messages between the World's Fair in New York and the concurrent Golden Gate International Exhibition in San Francisco.

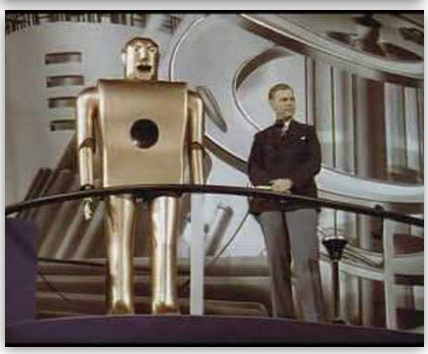
Pessimism did not come easily to Americans in 1939-40, even after a great depression, and with worries about war. They loved to talk about the future and the wonders it would bring. They fantasized about a techno-utopia that satisfied all needs. Corporate and industry propagandists promised to improve society and individual lives, everyone one would be happier. You could trust the "experts" to plan. Cock-eyed optimism.

But cities, and everything in them, were not always within reach of everybody. In the Town of Tomorrow, many of the model homes were not actually affordable to an average American income. And members of the Fair Committee had concerns about too much urbanity at the fair, "the common run of people, especially those from small places throughout the country…seemed to become sort of frightened in a way by it."

“You are masters of a good, bold, brilliant future.”

—Westinghouse brochure

RCA Exhibit, a model kitchen in the Hall of Electrical Living, Elktro



In the RCA exhibit, the “magic box” — television —made its public appearance. Visitors could see themselves on television and were given a button documenting their appearance. RCA broadcast President Franklin Roosevelt’s address at the opening ceremonies on television sets at the fairgrounds — the first president ever televised. NBC set up shop atop the Empire State Building for the first national television broadcasts — material and scientific wonders of the world of tomorrow on the magic box.

In order to convince skeptical visitors that television was not a trick, one set was made with a transparent case so that the internal components could be seen. However, the television sets on display used voltage doublers to produce a brighter picture than the sets sold to the public. Nevertheless, by 1960 sixty million American households had a TV.

In the Hall of Electrical Living at the Westinghouse Building, visitors were plugged into the full potential of the age of electricity. Westinghouse wanted to impress upon visitors “how electricity has assumed the burden of major household tasks, and how it contributes in many ways to the pleasure, convenience, safety and health of people.” Crowds also gathered to watch Elektro, a 7-foot tall robot. He could walk (awkwardly), talk (through a 78-rpm record player embedded in his body), count with his fingers and smoke a cigarette. His recorded banter included insults and creepy comments about women. But fairgoers seemed more engaged by dishwashers than by robots, or the culture of national pavilions. Many had suffered from economic deprivation, and now they wanted to press their noses against a window and see a better future.

There were other miracles at the fair. There were fluorescent lights, nylon stockings, bolts of lightning from an artificial generator. There were electronic milking machines and a 12-foot electric shaver. In the Living Room of Tomorrow was a piece of semicircular furniture that turned a room into an amphitheater so the family could view the wonder-of-new-wonders, the RCA television set. Fabulous new technologies would eliminate poverty, hunger and illiteracy. Synthetic foods would feed the starving. Miracle drugs would heal the sick. Aviation would make long-distance travel routine.

In a 1939 essay, after visiting the miraculous World of Tomorrow, E. B. White observed, "Rugs did not slip in Tomorrow."

I think General Motors, RCA and Westinghouse got a lot of it right, even though World War II came down on that optimism like a great curtain. In the postwar years, many Americans went on a buying binge, replacing old appliances and cars. They moved into new suburban homes with televisions and up-to-date kitchens, and they commuted. Those transcontinental highways were built. Richard Nixon decided to face down Nikita Khrushchev in a debate inside a model American kitchen (*we* will bury *you* — not the other way around — with consumer products). Robert Moses was moved to insist that "the metropolis is not dead" and denounce bypass highways.

Feuds Over the Future

Two feuds were brewing at the fair: the role of science in society and the commercialism of the fair. I think both still ring like the knell of a bell struck nearly eighty years ago.

Belief in progress was paramount at the fair. For most members of the Theme Committee, and for Progressives and educators, it was a "civic religion." For companies, it was an opportunity to make people believe their products were indispensable to progress.

But all agreed on the goodness of progress, and on the importance of science and technology. Hardly anyone thought of either as villains, even as Europe began to fall to Nazis and tens of millions of people were about to die in humanity's bloodiest war.

Historian Warren Susman characterized the New York World's Fair as a deliberately educational enterprise. Thinking again of Mr. Swinburne, who went to the fair for science, the Westinghouse Building was a battleground. Progressive educators wanted to demonstrate the societal worth of science in encouraging rational thinking and democratic citizenship. Science was a way "to participate thoughtfully with fellow citizens in building and protecting a society that is open, decent, and vital." Westinghouse agreed to host student exhibits representing the fields of astronomy, biology, chemistry, engineering, nature studies, photography, physics and physiography.

But Westinghouse presented the exhibits as magical entertainment. The value of scientific inquiry was in its applications for consumer products, and it should inspire confidence and consumer interest in American industry.

"The word science has not once appeared in the broad plans and detailed schedules of organizing of the Fair . . . Science should be everywhere; it promises to be nowhere."

— Gerald Wendt, American Institute of the City of New York

Corporate sponsorship established a long-term precedent for industrial involvement in American science education. They were interested in "manpower" and "professionalist" purposes of science education, and sought to highlight the societal contributions of industrial corporations. They were not interested in inviting scrutiny of the shortcomings of American democracy and industrial capitalism. Overall, the fair marked a turning point when Progressive science education began to give way to ends that aligned with economic and military imperatives. It was a conflict that remains.

Overt commercialism was another criticism of the fair. Some have portrayed it as a profit-seeking venture to revive a sluggish local economy from the depression.

"When critics complain about the fair, what really pains them, it seems to me, is the character of American society itself."

—*1939: The Lost World of the Fair,* David Gelernter

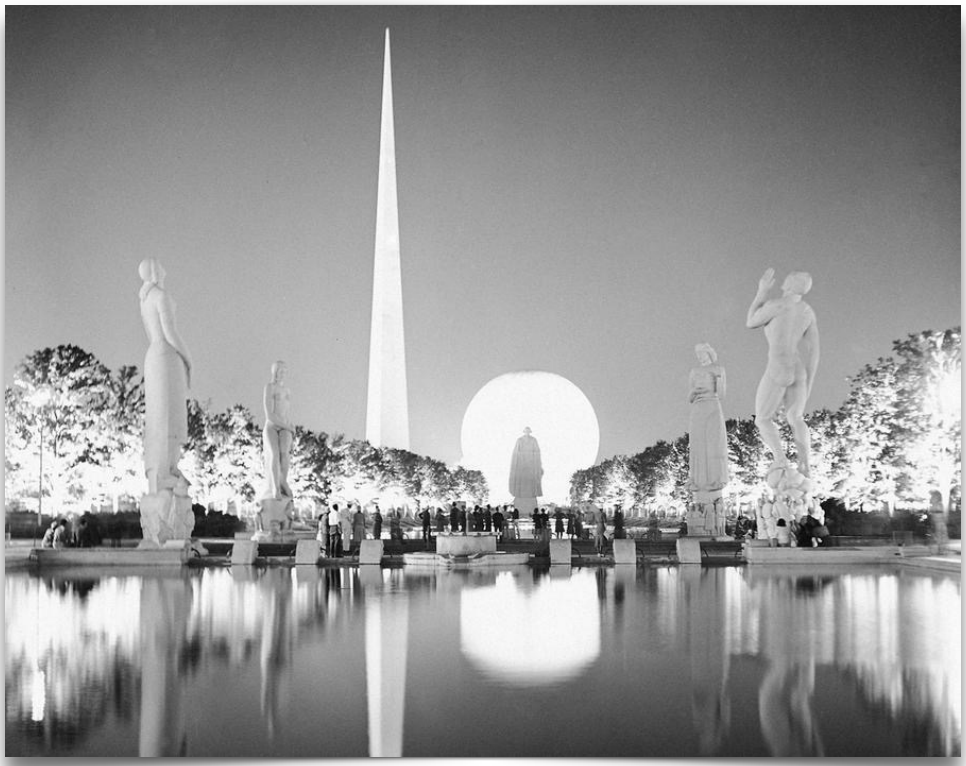
According to those critics, the fair was the biggest showroom on Earth, a "revelry of corporate capitalism," and a "great con game." The writer Francis O'Connor complained that "All forms of artistic activity were exploited to promote a merchant's vision of a profitable future." Indeed, corporate sponsors spent extravagant sums convincing Americans to modernize by buying their products. But Gelernter argues those criticisms are "all true, and they are all wrong." The fair did not "concoct American consumerism out of whole cloth…Could it possibly be that Americans *wanted* television sets, superhighways, foreign food and a streamlined life?" Quite possibly, I think.

A Last Word About Design

Architects, designers and artists left their mark at the fair. Architect Wallace Harrison led the design of the Trylon and Persiphere, and later the United Nations building. The General Motors pavilion exterior and its main exhibit, Futurama, were designed by Norman Bel Geddes. Henry Dreyfuss built Democracity. Willem de Kooning, Alex Calder, Salvador Dali, Phillip Guston and Rockwell Kent added to the fair's design. Roosevelt's Work Progress Administration set up a workshop that created murals and sponsored programs for Federal Art, Music, Writers and Theater Projects.

Did I mention Albert Einstein? He agreed to briefly explain cosmic rays to anyone who was listening, and then flip a switch to turn on the fairground lights on opening night. Unfortunately, crummy public address speakers and his German accent were not a good match. Only a few of his words could be understood. Making matters worse, a choreography between flashing lights symbolizing cosmic rays and the switch to light up the whole fairground misfired. That setback, however, was quickly forgotten in a spectacular fireworks display over the Lagoon of Nations.

The New York World's Fair was the greatest show on Earth. And it was America poised to go off to war and come home a superpower, yearning for the promise of suburbia.



LAGOON OF NATIONS AND STATUES OF THE FOUR FREEDOMS AND GEORGE WASHINGTON, WITH THE TRYLON AND PERISPHERE IN THE BACKGROUND.