Scaling Up:
The ‘Speculative Architecture’ of 1930s New York

In his 1925 drawing, “The Lure of the City,” the architectural renderer Hugh Ferriss depicts the future metropolis towering boldly in front of an intrepid spectator. Standing atop what appears to be a grassy hilltop, a lone figure stares upward at a group of skyscrapers. Each of the tall buildings is drawn with enough detail to distinguish it from the others, but not enough to stop one’s eye from washing over the scene all at once, from seeing what Ferriss calls, “the unformulated, yet gleaming metropolis” (Leich).¹ In Ferriss’ rendering of the city, the spectator is decidedly separate from the spectacle; he stands at a distance and optimistically gazes upon the grand scale of structures emerging in the new city. The city, grand and accessible, is presented in clear view, away from the crowd and other threatening signifiers of the industrialized landscape. Ferriss is able to achieve this simultaneous distance and proximity by rendering the city within the act of spectatorship. There is no illusion of an unmediated landscape; the lone spectator is privy to the urban landscape only as an object of speculation.

After World War I, the American city underwent considerable changes. The population of New York City expanded by more than 1.5 million people between 1918 and 1930. And, as most of this population was crowded on the island of Manhattan, the city was engaged in a race to the sky. In these boom years, skyscrapers went from a novelty to the norm. As the streets transformed into crowded urban valleys lined with brick and terra cotta, the possibility of a spectator achieving a cohesive and unmediated view of New York grew ever more remote. The playfulness of the moving image, as a medium and symbol of urban
experience was limited in scope. As the size of the metropolis grew, the means by which the spectator could access and reproduce the experience of it changed. The street gave way to the sky, proximity to distance, and movement to network.

In this chapter, I explore how the marketable and consumable experience of the city became an object of speculation. As buildings grew skyward, as moving pictures moved from the peep show and nickelodeon to the picture palace, and as radio became a broadcast medium, the city that housed them became a “projection,” a spectacle removed from the embodied experience of the camera in motion. By examining what I call speculative architecture in the 1920s and 1930s – skyscrapers, movie palaces and radio networks – I locate a shift in the consumable urban experience. No longer characterized solely by the immediately visible and mobile, consumable urban experience is located in the projection of place into far off spaces. While still presented as a form of play, the definition of playfulness is significantly altered in the popular discourse. Now, more aligned with the play of the imagination than the play of the body, the American city is placed firmly in the future. In 1925, the architect Harvey Corbett predicted that in 50 years automobiles would have completely disappeared from New York’s streets and pedestrians will be shot across vast distances “like parcels.”

New York will be vast and the growth of all our large cities will probably be such that they will extend for 50 or 75 miles. New York will be a Titanic city half a mile high, probably tiered in gigantic terraces; a Gargantuan pyramidal conception, fit for a race of giants; 60 miles across, and conducting its traffic through tubes and on moveable platforms and escalating galleries ("Sees City Traffic All Underground").

Increasingly, the everyday experience of the city was associated with speculation. According to Corbett, speculation was necessary to accommodate the individual in the
crowding city. “The herding instinct of man to congregate in cities grows stronger…the
evolution of the city is pointing toward more astounding developments every day. We have
already seen the city take shapes that a few years ago were characterized as ‘absurd,
fantastical, impossible’ when architectural drawings of them were made public” ("Sees City
Traffic All Underground"). Corbett and others considered Hugh Ferris to be an urban
soothsayer. His drawings of New York, ‘absurd, fantastical, impossible,’ were predictive of
the shape of the city to come. For this reason, I devote some space in this chapter to
analyzing his work and its reception. Ferris became the best-known artist of this new
speculative architecture. His drawings of skyscrapers and cityscapes brushed over detail in
favor of fantasy. As I will describe, they insinuated the deep connections between the city
and the acts of projection and broadcast. While the move towards speculation in the framing
of urban experience is much more complex and expansive than Ferris alone depicts, his work
serves as a connection between the architectural discourse of modernity and the popular
capacity of speculation. In the pages that follow, I explore skyscrapers, cinema and its
palaces, radio broadcasting, the construction of Rockefeller Center, and the culminating
speculations of the 1939 World’s Fair – all of which contributed to transforming the urban
aesthetic of play from the participatory to the speculative.

City of the Imagination

Just as a sufficient number of days will turn a baby into an old man, so the cumulative changes
of enough sunrises and sunsets will change a country village into the greatest concentration of
humanity since history began. This has happened in New York City, and New York is still
growing (Duffus "Charting the New York of the Future").
The rise of the modern skyscraper in New York was an essential element in the changing urban landscape of the 1920s. These buildings, grand in scale and utopian by design, looked unimpeded towards the future. They were architectural displays of a particular vision of America – sturdy, immobile and theoretically unaffected by the changing world around them. The skyscraper was built to alter the sky, not the street; only the first two or three floors were designed for the local pedestrian. The larger structure was for the benefit of the skyline – it existed only in the imagination for those at street-level. Skyscrapers demanded speculation from urban spectators, a certain faith in the beauty and strength of the structure.

Whereas these tall buildings began dotting the urban landscape as early as the nineteenth century\textsuperscript{2}, most notably in Chicago, it wasn’t until after World War I that the sheer display of scale in the form of the skyscraper became the primary means through which New York communicated the idea of the American city. New York, as Le Corbusier famously put it, was the “vertical city”. The skyscraper shifted its dimensions, affecting both urbanism and the literal shape of urban space. Le Corbusier described this transformation in his New York travel journal: “A thousand feet of height looked at from the streets, or appearing as an ineffable spectacle from the plains of New Jersey, above the Palisades – the cliffs along the Hudson River – that is the scale [italics added] of the new times” (LeCorbusier: 45). As the architect W.A. Starrett wrote in his autobiography in 1928, the skyscraper is “essentially and completely American, so far surpassing anything ever before undertaken in its vastness, swiftness, utility, and economy that it epitomizes American life and American civilization, and, indeed, has become the cornerstone and abode of our national progress” (qtd. in Leeuwen: 4).
Starrett was one of many who celebrated the skyscraper as the essential icon of the new American city. Throughout the 1920s (a decade often referred to as the “age of the skyscraper”), tall buildings were overwhelmingly heralded as the unique contribution of American architecture. In 1926, an exhibition devoted exclusively to the skyscraper opened at the Corona Mundi International Art Centre in Manhattan. According to an account in the *New York Times*, the exhibit was the first of its kind where “the public was invited to attend to judge for itself whether the skyscraper was of the detriments to our growing life, as recently alleged, or a phase of art comparable to the Pyramids or the architectural creations of Greece and Rome” ("Skyscraper City of Future Shown"). The tone of the exhibit, featuring Hugh Ferris and many of New York’s prominent architects, was decidedly geared towards the latter option. The skyscraper was a form to be celebrated as distinctly American, with its most ambitious manifestation in New York.

We might assume that the public had already made up its mind. Hugh Ferriss’ drawings had by that time became iconic representations of the urban future. The first images of the Empire State Building, published years before the building was complete, were Ferris’ fantastical representations. Utopian and yet possible, expressive and yet realist, Ferriss’ pencil-drawn renderings were displayed in museums and published in popular magazines throughout the 1920s and 30s. His proscriptive drawings made sense of the potential shape of the American city in ways much more powerful than written commentary or even actual examples of finished buildings. Ferris intended the texture of his drawings, with their heavy shadows and dramatic lighting, to soften the technological aesthetic of modernity. In the catalog of his 1932 exhibit at the Roerich Museum, his doctrine is stated thusly: “The
recognition, preservation and encouragement of human values in an age increasingly mechanistic” ("Architectural Design Show"). By emphasizing spectatorship in the representation of skyscrapers, Ferris managed to exhibit the grandiose on a human scale. In his depiction of the Empire State Building that appeared in the New York Times (Poore), the perspective originates from a pedestrian’s position at street level and is directed upwards. The dramatic lighting starts low and fades away as it approaches the top of the building shrouded by the night sky. The result is a picture of a grand building of unprecedented scale, softened and made comprehensible by the humble texture and perspective of the drawing.

Even those skeptical of the potentially dehumanizing scale of the skyscraper city concluded it to be inevitable and consequently took comfort in Ferriss’ work. According to one critic, “That Mr. Ferriss’ metropolis or something less lovely, is in store for us, can hardly be denied. Monster cities and buildings are already here. They are being built by forces not yet under control. The task is to subdue them…[and] Mr. Ferriss has contributed something to the fulfillment of that goal” (Duffus "The Metropolis of the Future: Mr. Ferriss Considers the Problem Created by the Skyscraper": 10). Ferriss rendered the skyscraper a functional aspect of continued urban centralization and successfully articulated the popular desire to embrace the American skyscraper as a vision of the future. While some viewed skyscrapers as excessive symbols of capitalism, most wanted to believe that this peculiarly American form could be a lasting contribution to modern life. One critic referred to Ferriss’ drawings as “a gorgeous feast…appealing as a work of art, [and] magically stirring as a prophecy” (Guerard). From these prophetic works, Ferriss managed to distill the skeptical American desire for a skyscraper future into a palatable aesthetic style.
But representations of the skyscraper future were already familiar to most spectators through cinema. Ferris’ aesthetic was reminiscent of the foreboding urban landscapes of Fritz Lang’s *Metropolis* (1927) and King Vidor’s *The Crowd* (1928). In each of these films, the city’s immensity and its resulting claustrophobia, is highlighted through darkly lit, expressionist design. Distinct from Ferris’ optimism, the metaphor of verticality in *Metropolis* encompassed the themes of social inequality and mechanization. High above the city, the leisure class basked in the sun, while down below the laborers toiled. In *The Crowd* also, the relentless ant’s eye views of the skyscrapers are part of the titular crowd that serves to alienate the protagonist, John Sims. The skyscraper is the visual reminder of Sims’ insignificance. Its towering form preexists, and thus actively negates, the act of spectatorship. Instead of each building emerging out of an anticipatory gaze, the buildings crowd in and overwhelm the senses to communicate a future that has already arrived.

But not all cinematic representations of skyscrapers were so bleak. Musical representations often highlighted the speculative qualities of the city. In most New York musicals, skyscrapers were heralded as an ecstatic monument to progress, or what Scott Bukatman called a “delirious urban celebration.” For example, in Lloyd Bacon’s *42nd Street* (1933), skyscrapers literally dance to their own success. In Mervyn Leroy’s *Gold Diggers of ’33* (1933) and Busby Berkeley’s *Dames* (1934) and *Bright Lights* (1935), the tall buildings figure prominently in musical numbers and serve to metaphorically couch the success of the stage stars. Bukatman makes the argument that the musical numbers featuring New York’s skyline create a unique relationship between the city and spectatorship. “As with Times Square, Broadway, or the movies themselves, the numbers represent an oasis within which
spectacle can be indulged, consumed, and played with” (158). Emerging in the midst of the depression, these cinematic spectacles compelled viewers to look beyond the present city and towards the city of the future – one that could dance and sing with potential. This was a city in play. Bukatman describes this musical city as having a “creative geography,” wherein the characters could enter “into an integrated, syncopated, and carefully synchronized environment in which work is either replaced by play or transformed into a kind of play” (162). Different than the spectator described in the last chapter, who desired an immediate engagement in the rhythms of the city, the musical constructed a spectator that could watch play unfold within a speculative landscape. The play discovered in the musical film was in watching the city transform from a spatial or temporal distance. Similar to what R.L. Duffus, writing for the New York Times, called “a better city to live in,” the “syncopated city” was in the future tense. “It is too late to plan the city that is,” according to Duffus. “The more glorious city of the future,” he declared, “is within our grasp if we wish to reach out for it” ("Charting the New York of the Future").

The best example of “reaching out” for this city of the future within cinema can be found in the 1930 musical Just Imagine! In what the New York Times called “a beautiful production,” this little known musical version of Lang’s Metropolis represents New York City fifty years in the future (Hall). In this version, a man falls asleep in 1930 and wakes up fifty years later only to discover a place where names are replaced with numbers and babies are ‘born’ from vending machines. And the city has become a familiar futuristic vision (based on Hugh Ferris’ drawings) where traffic is split into nine vertical levels, buildings extend miles into the sky, and airplanes are more popular than cars. But the city is more reminiscent of
According to James Sanders: “Where Metropolis seems inspired by Lower Manhattan, with its angular streets and closely packed towers, Just Imagine!’s city suggests midtown, its layout of buildings and avenues more regular and widely spaced” (pg#). Indeed, the skyscrapers in this elaborately designed set (which was nominated for an academy award for ‘Interior Decoration’) appeared always to be at a distance from the characters. They were explicitly removed from the characters and appeared to be behind a proscenium so as to draw attention to the practice of viewing.

This was a practice to which most urban spectators were familiar. As movie theaters transformed from nickelodeons to palaces in the 1920s, the containment of the cinematic spectacle became part and parcel of the urban fabric. In many ways, the movie palace was the architectural equivalent of the musical. It was celebratory and speculative, and it transformed urban play from the mobile gaze of the body and lens to the stationary practice of the imagination. These fantasy structures built in exaggerated scale were grandiose containers for the cinematic image. Roxy Rothafel, the man known as the high priest of New York’s movie palaces, helped design one of the largest movie theaters in the city, the Roxy (1927). This theater, which he dubbed the “Cathedral of the Motion Pictures,” included a “set of tower chimes, a grand dome encircled by a spotlight gallery, and pulpits alongside the stage, reached by curving golden stairways suspended below them” (Naylor: 109). The majority of these structures were premised on anachronistic designs, ironically, built to house the very symbol of modernity. With their grand cathedral-like architecture, movie palaces employed the cinematic image in the service of the city image. In other words, they were not solely built to enhance the cinema; in very important ways, these structures allowed the cinema to directly
enhance the city. Movie palaces were more about the city that housed them than the spectacles they housed.

**The City’s Invisible Foundation**

Just as spectators were introduced to the grandeur of the distant spectacle in movie palaces, they were comforted by the intimacy of the surrounding empty space. After the 1912 Titanic disaster, radio made the transition from a little noticed amateur’s hobby to a clear necessity in the modern landscape. According to an article in the *New York Times* published on April 26, 1912,

> Night and day all the year round the millions upon the earth and the thousands upon the sea now reach out and grasp the thin air and use it as a thing more potent for human aid than any strand of wire or cable that was ever spun or woven. Last week 745 [sic] human lives were saved from perishing by the wireless. But for the almost magic use of the air the *Titanic* tragedy would have been shrouded in the secrecy that not so long ago was the power of the sea…Few New Yorkers realize that all through the roar of the big city there are constantly speeding messages between people separated by vast distances, and that over housetops and even through the walls of buildings and in the very air one breathes are words written by electricity (qtd. in Kern: 67)

Living amongst the invisible whirring of electrical messages was part of the parlance of modern life. Unlike other elements of the urban environment, like crowds of people and the congestion of buildings that were increasingly associated with crime and danger in the popular press, the crowding of invisible messages on radio waves carried redemptive possibilities.

Radio’s emergence as a popular medium brought the invisible to the forefront of everyday life and significantly altered how the city could be imagined. Many developers and
planners began to conceive of the city as a network – placing less importance on the center and more on the hubs surrounding it in a radial fashion. As early as 1896, immediately following Marconi’s transatlantic wireless transmission, “hams” or amateurs began filling the newly discovered ether with information. But it wasn’t until Lee DeForest’s 1907 invention of the Audion tube (the first radio receiver) that this two-way communication device was reconceptualized as a broadcast technology. DeForest immediately began broadcasting from New York City and Paris even though very few people actually possessed the technology to receive the signals. Years later, after broadcasting caught on, DeForest recalled that through his accomplishment he had “unwittingly… discovered an invisible Empire of the Air” (qtd. in Barnouw: 15). An absolute mania pervaded America: people rushed to buy receivers as transmitter towers cropped up throughout the country (Douglas). Broadcasts, originating primarily in New York, redefined the physical limits of the American city by adding the invisible ether to its potential landscape.

Utopian discourses surrounding radio broadcasting forcefully emerged in the 1920s. An article in *Collier’s* claimed that radio would become “a tremendous civilizer” bringing “mutual understanding to all sections of the country, unifying our thoughts, ideals, and purposes, making us a strong and well-knit people” (qtd. in Douglas: 54). A writer for *Radio News* recounts her experience living in a farmhouse hundreds of miles from New York City:

> But out under the old gnarled apple trees…we sat one evening in listened to the New York Philharmonic orchestra play the Beethoven Fifth Symphony; and we heard Roxy and his gang put over a good show at the Capitol Theatre. The horny hands of the farm women, used to all labor and no amusement for the last half century, were still and awed. It was as though the Magic Carpet of Baghdad had come to life and transported them to Gotham (Frederick).
Radio was considered the great conqueror of space with promise to unite a city, a nation, and perhaps even the world. However, there was still no viable way to create a national broadcast. Stations were not powerful enough, and it was unclear how to strengthen or even to connect them. Despite what some feared was a technological impossibility, the battle for national radio raged throughout the 1920s.

Local stations, broadcasting to individual cities throughout America, had been in existence for some time when the practical steps towards establishing national radio began. After World War I, there was no centralized control of the radio business. Privately owned stations existed all throughout the country, with large companies like General Electric (GE), Westinghouse and AT&T, controlling most of them. Yet there was not a real leader in the industry. However, because the British Marconi Company then controlled the largest segment of wireless related patents, the American government felt it necessary to intervene in the emerging industry. In 1919 it urged the establishment of the patent pool Radio Corporation of American (RCA) in order to ensure that American firms could control wireless technology.

A series of conferences were held to establish legislative proposals for the future of wireless. While the first two, held in 1922 and 1923, were unsuccessful, by the third, the issue of “interconnection” became central. The possibility of establishing “super-power” broadcasting towers that reached across states and perhaps the entire country was quickly deemed technologically impossible and ultimately undesirable. But by supplying “quality” programs to rural locations through networks, radio could bring “high” urban culture to the country without erasing the geographical distinctiveness of rural areas. One of the
subcommittees of the Third National Radio Conference reported that “improvements in programs is essential.” Such improvements would result from interconnecting “broadcasting stations, bringing the programs of the larger centers of art, music, and events of public interest to the more remote broadcasting stations” (Smulyan: 39).

The promise of connectivity without centralization was the single most influential factor in determining the shape of radio broadcasting in the United States. Accordingly, this promise was equally influential in the framing of urban experience. Hugh Ferriss exemplified this utopian imagination. In his drawings of the “Metropolis of Tomorrow,” the city is divided into multiple centers. These “centers” function as broadcasting stations, each emanating out to its proximate cluster of buildings, and each connected through a singular network. Ferriss’ drawings reflected the distinctly American push away from the “super-power” centralization of European cities. The American city was being built on a networking model that deemphasized the center while placing attention onto the circulation of information.

The social scientists Lazarsfeld and Kendall, in their 1948 study conducted at the University of Chicago’s National Opinion Research Center, concluded the following about the impact of radio: it “is not a single, isolated experience such as seeing a Broadway play or taking a vacation. It is woven into the daily pattern of our lives year in and year out” (44). The “Metropolis of Tomorrow,” like the new medium of radio, is everywhere and nowhere at the same time. While Ferriss’ city can be partially viewed from a distant parapet, the bridges between the centers remain invisible. And while radio could be experienced in a single instant, its origin and perpetual stream of information remained inconceivable. In each
instance, space itself, or the invisible material that composes it, is central to the form of the medium. By the late 1920s, ether, and by extension the concept of the network, was an important building block in the popular imaginings of the American city.

An “Imaginary” Metropolis

A First Impression of the contemporary city – let us say, the view of New York from the work-room in which most of these drawings were made – is not unlike [this] sketch. This, indeed, is to the author the familiar morning scene. But there are occasional mornings when, with an early fog not yet dispersed, one finds oneself, on stepping onto the parapet, the spectator of an even more nebulous panorama. Literally, there is nothing to be seen but mist; not a tower has yet been revealed below, and except for the immediate parapet rail (dark and wet as an ocean liner’s) there is not a suggestion of either locality or solidity for the coming scene. To an imaginative spectator, it might seem that he is perched in some elevated box to witness some gigantic spectacle, some cyclopean drama of forms; and that the curtain has not yet risen (Ferriss The Metropolis of Tomorrow: 15).

In this dramatic opening passage from Metropolis of Tomorrow, Hugh Ferriss describes the experience of looking out over New York City through the early morning mist. Like a theatrical spectacle, the city from afar is a “nebulous panorama,” a scene yet to take form. But when the curtain rises, what is uncovered is a sea of towers, a mass equivalent to the most dramatic stage set or cinematic projection. In the drawing shown here, Ferriss represents the act of viewing the city, as if to suggest the city, like the stage set, exists primarily in the context of spectatorship. The act of spectatorship is highlighted by the easel and canvas in the foreground, as if to imply that the city exists to be represented, that the city is composed in the process of viewing. The “imaginative spectator,” Ferriss writes, is watching from an “elevated
box” – a metaphor suggestive of a movie palace as he awaits the start of the “gigantic spectacle.”

This process-oriented approach to the built environment can be seen in a great deal of Ferriss’ work, perhaps explaining why he chose to draw buildings instead of build them. While trained as an architect, he worked only as an architectural renderer, a job title he created when he wrote *The Encyclopedia Britannica* entry in 1929 entitled “Rendering, Architectural” (Ferriss "Rendering, Architectural"). Even though Ferriss never actually designed a building, he was a significant figure in the development of American cities and architecture. Soon after graduating with an architecture degree from Washington University, Ferriss took a job in the New York office of Cass Gilbert in 1912 drawing details of the Woolworth Building, then under construction. Fancying himself more a draftsman than an architect, Ferriss began working freelance making drawings of New York street life. In August 1914, his sketch entitled “The *Vie de Boheme* in Washington Square” was published in *Vanity Fair*. A self-proclaimed visionary, Ferriss was more concerned with imagining the city in drawings than he was with designing one of its individual elements in space.

According to Carol Willis, Ferriss “sees mass and outline rather than fussy detail. He sees the play of light and shadow and feels, perhaps more than any other artist in America, the sense of bigness, the vast strength and size of America’s modern architecture” (151). Precisely through working with pencil and paper and not brick and mortar, Ferriss found his niche in New York’s world of architecture. He saw himself as more than just the producer of blueprints for future buildings. His drawings were intended to be a combination of the actual and the imaginary, a representation whereby mass is in dialogue with space. The underlying
truth of a building, Ferriss wrote in 1926, “is that it is a Mass in Space.” “He conceptualized buildings as a solid mass from which details slowly surfaced,” according to Willis. “Whereas another artist might first sketch lines and then shade individual areas, Ferriss usually darkened the general form, and then, working like a sculptor carving from a block, would create highlights and details with an eraser. He likened the process to observing a building emerge through a lifting fog” (151).

The architectural critic Douglas Haskell observed in 1930 that American urban architecture is preoccupied with the study of the ‘mass.’ Ferriss’ city was not composed through the accumulation of disparate structures, but it was instead composed of individual structures carved from a singular space. Like a sculpture, Ferriss’ city began as one solid mass; its empty spaces intentionally carved away by the artist. Just as radio proved the existence of invisible mass called ether, Ferriss’ city promoted the invisible materiality that connected its structures. This was the stability of the future looking American city. *The Metropolis of Tomorrow*, Ferriss’ best-known publication, was devoted to communicating this idea.

*Metropolis of Tomorrow* is divided into three sections: “Cities of Today,” “Projected Trends,” and “An Imaginary Metropolis.” It is in the last section where Ferriss fully explores the possibilities of new technologies on the future city. He theorizes scale and invisibility in the image of the city. It is here that the act of imagining the city to come develops into a necessary element in imagining the city that is.

In the opening passage of this final section Ferriss revisits the theme of the theater curtain:
Let us return to the parapet which provided us with our original bird’s eye view of the existing city. It is again dawn, with an early mist completely enveloping the scene. Again, there lies beneath us, curtained by the mist, a Metropolis – and the curtain, again, is about to rise. But, in this case, let us have it rise, not on the existing city, but on a city of the imagination (The Metropolis of Tomorrow: 109).

Looking down upon the city once again, after describing the face of the present city in previous sections of the book, Ferriss asks the reader to envision the “city of the imagination” – the face of the future city. In the center of this planned metropolis lies the “Civic Circle” – “which, with its parks, playgrounds and areas for open-air gatherings and exhibitions, is the focal point to which the radial avenues lead” (The Metropolis of Tomorrow: 138). Along the circumference of the circle, there are three main hubs, each with a very specific purpose. The Business Center, the Art Center and the Science Center are skyscraper clusters that house each of their titular activities and functions. To Ferriss, “Each of these tower-buildings houses all the facilities for the day’s work; containing, in addition to the offices themselves, the necessary post office, bank, shops, restaurants, gymnasiums and so on. Each is, so to speak, a city in itself” (The Metropolis of Tomorrow: 128). However, the ideal urban dweller Ferriss envisions in his city would, as a matter of necessity, frequent all of these spaces in order to fully realize the potential of urban life. The three centers are not meant to be separate; they are, for Ferriss, complimentary parts of a whole.

Ferriss’ city was not intended to be experienced in a singular take; it was not be subsumed into a particular moment of Gestalt. The experience of the city was premised on the connectivity of its parts. While each center remained separate, in that it was functional and self-sustaining, only in the correspondence of centers did the metropolis emerge. This multi-nucleated city was different from the dominant strains in urban planning at the time.
Patrick Geddes’ work and much of the Chicago School’s emphasis on the concentric circle model was concerned with outward growth from an existing center. Spatial proximity was necessary for a functional city. While eventually this model changed to allow for the growth of individual hubs to exist within the larger metropolis, at all times the hubs needed to overlap or coincide.

In Ferriss’ metropolis, it is the distance between centers that renders the whole functional. Therefore, as none of the individual centers could, in isolation, compose the city, it was the space between centers that took priority. It is in these “empty” spaces where one could obtain the unobstructed view of the individual centers. Ferriss envisioned the space between centers as a significant aspect to the future city’s material. On the surface, Ferris’ position was quite similar to that held by other prominent architects, namely Le Corbusier. However, Le Corbusier’s contention that cities were in need of open space was premised on the assumption that empty space was, in fact, empty. “WE MUST BUILD ON A CLEAR SITE!” he exclaimed in *The City of Tomorrow and its Planning*. “The city of today is dying because it is not constructed geometrically” (232). While Ferris shared certain of Le Corbusier’s inclinations towards modern planning, Le Corbusier continually emphasized the top-down approach to the urban form. The geometry, rather than the perspective, is what mattered to him. Ferris’ city, on the other hand, was immersive – the empty space was a tactile material through which each spectator viewed the world.

The assimilation of “empty space” into the structural mass of the city is premised on a long social and scientific debate concerning the existence of ether. In 1898, the American philosopher Hirom M. Stanley pondered the significance of space itself, concluding that space
is “not full of things, but things are spaceful” (qtd. in Kern: 154). From the advent of radio transmission in the late 19th century, vibrant scientific and philosophical dialogues emerged around the topic of space. Stanley’s adjectival form of the word opposed predominant thinking on the subject; most 19th century physicists couldn’t concede that space was itself a dynamic substance, with properties capable of altering the objects around it. The notion of ether, a medium that exists within space, then emerged as the dominant explanation for the mysterious potential of the invisible environment. For Ferris, the space between things, the space across which spectatorship happens, is necessary to the experience of objects. Elements of the city are composed of the space that surrounds them, in that elements of urbanism (buildings, streets and people) are unrealizable outside of the ability to view them. This is why Ferris felt so strongly about maintaining open space in the city. Currently, he argued, there was not enough airspace for the pedestrian to actually view his environment:

The fact is that in the general run of cities, the tall individual skyscraper, however well designed can very seldom be individually seen. That is to say, juxtaposition is so close that only bits of the structure can be seen at one time by the pedestrian. Only by craning the neck does one see the whole of the tower; and then, of course, one sees only a ridiculous distortion. But in the city, now before us, each great mass is surrounded by a great spaciousness; here, we may assume, the citizen’s habitual prospects are ample vistas. Without altering his upright posture, his glance may serenely traverse the vista and find at its end a dominating and upright pinnacle (The Metropolis of Tomorrow: 110).

Spaciousness allows vision. The structuring metaphor of radio, the redemptive possibilities of invisible material, ironically, created a paradigm wherein the city could be rendered visible – ultimately setting the stage for a more humane, “complete” access to the city.

Ferriss’ future city did not have a centralized locus of power. It was the combinatorial effect of the networked hubs that allowed the city to emerge. This is made clear in the
epilogue to The Metropolis of Tomorrow, where Ferriss discloses that his ideas of the networked city were influenced by a “curious inscription” he discovered. “The manuscript was partly mutilated,” explains Ferriss, “it may have been of quite ancient origin. Was it simply a curio? Or did it contain a clue? The author did not actually comprehend…yet he secured the copy which he now, at the last moment, includes – leaving it to whatever attention the chance reader may be inclined to give…” (The Metropolis of Tomorrow: 142).

The manuscript in question, entitled “Clue,” includes the following text: “The CITY could be made in the image of MAN who is made in the image of.” Interspersed between the words there are two small images, each composed of a triangle embedded within a circle. Corresponding with the tips of the top triangle (which relates to the city) are the words: “its sciences,” “its arts,” “its business.” The bottom triangle (which references man) states the following: “his thoughts,” “his feelings,” “his senses.” There are a couple of noteworthy elements in this simple diagram that Ferriss places in the epilogue of his book. The design of the phrase suggests that the viewer read this text in a loop, implying that man is made in the image of the city, and so on. Man is composed within a triangle of qualities, none taking precedence over the other. The essence of man is his thoughts, feelings and senses. This combinatory image of man runs contrary to the Cartesian grid-plan favored by so many urban planners at the time – a plan whose hyper-rational layout reinforced the distinction between mind and body. Yet Ferriss then suggests that man is “made,” not in the image of God, but in the image of the city – that man and his environment are engaged in a continuous feedback loop, each mediating the other. It is useful to quote Ferriss in length:

Architecture influences the lives of human beings. City dwellers react to the architectural forms and spaces which they encounter: specific consequences may be
looked for in their thoughts, feelings and actions. Their response to Architecture is usually subconscious. Designers themselves are usually unconscious of the effects which their creations will produce...Our criterion for judging this self-conscious Architecture will be its effect on human values: its net contribution to the harmonious development of man. We hope that eventually it will not only adequately meet the demands of our physical welfare, but will also serve in actualizing whatever may be man’s potentialities of emotional and mental well-being (The Metropolis of Tomorrow: 142).

After asserting the responsibility architects should bear, he presents the following questions:

Who, indeed, can specifically define these potentialities – and what architects can prepare contributory or evocative designs? It may well be that at the present moment there are none; nor will there be, until architects have begun to call into their draughting rooms the scientist, the psychologist, the philosopher... (The Metropolis of Tomorrow: 142).

By metaphorically inviting “experts” to participate in the production of the city, the city might reflect a human face, ultimately creating the feedback loop for which Ferriss longed. In the “Metropolis of Tomorrow”, there is a necessary correspondence between the qualities of man and the qualities of the city, each organically constructed to meet the needs of the other.

Ferriss asks how one can define the human potentialities of the city? And he succeeds in answering his own question by assimilating the metaphor of the new medium of radio into his design. Whenever a new medium is introduced into the culture, it is shaped to meet the desires of those who would use it. This is particularly true of radio. Implicit in that medium are the traces of the triangular qualities of man Ferriss is so eager to integrate into the design of the city. By modeling the city from an existing communication medium, the space uses the same qualities that infuse the medium. The network of centers (or stations) that serve to define the whole is precisely the model that radio struggled with as it entered the broadcast era in the late 1920s. The issue of networking, how to connect large geographical distances,
had become a question, not only of technological advancement, but also of human interaction. The fate of the future city, destined to become a chaotic megalopolis unless the newly discovered ether was utilized to connect people across space, was fundamentally indebted to the parallel technological advancements in radio broadcasting.

A “Real” Metropolis

Like Ferriss’ dream of absolute connectivity within the city, the lead architect of Rockefeller Center, Raymond Hood, understood the massive new development as “a city within a city:” (Hood) free standing hubs connected by invisible ether to manifest a whole.⁵ According to a promotional book: “As each individual structure will harmonize with the architecture of the group, so also will the decorations fit into an inclusive ornamentative plan to tell, in the symbolic language of the arts, a connected, understandable story” (Rockefeller Center: 5). Rockefeller Center, or what was until 1932 called “Radio City”, was conceived as a single narrative, connected through a complex network of buildings and spectacles.

At a ceremony marking the completion of Rockefeller Center on November 1, 1939, the master of ceremonies declared that they were “dedicating a self-contained city whose structural form [had] finally emerged” (The Last Rivet: 45). Rockefeller Center, a project spanning eleven years from groundbreaking to completion, is the most elaborate production of a permanent networked city ever attempted. This combination of offices and entertainment establishments marked the first structural implementation of radio form to urban space. According to the architect Rem Koolhaas, Rockefeller Center embodied the essence of what he called Manhattanism – New York’s propensity towards unscripted urban montage.
“Rockefeller Center is the most mature demonstration of Manhattanism’s unspoken theory of
the simultaneous existence of different programs on a single site, connected only by the
common date of elevators, service cores, columns and external envelope” (170). Lacking a
traditional center, this mélange of skyscrapers, theaters and shops avoids blending into the
surrounding urban setting through a loosely conceived network that unites its individual
structures. Koolhaas describes this paradox as “the maximum of congestion combined with
the maximum of light and space” (173). Through the accessibility of “empty” spaces within
the confines of the larger development, the spectator in the Center views individual buildings
while at once maintaining an orientation towards the networked whole.

The significance of Rockefeller Center for American urbanism cannot be ascertained
simply by viewing its final form; rather, the site’s relevance rests in the long development
process that led to its current structure. Throughout the many years of its design and
construction, the physical plans of the site seemed in constant flux. But the concept of the
development remained unchanged from the beginning – its essential debt to an existing
cultural form.

John D. Rockefeller, Jr. leased several blocks of land in midtown Manhattan from
Columbia University for the explicit purpose of relocating the existing opera house to “an
ideal city unit in the midst of New York” (“Architects Picked to Plan Rockefeller Center,
Which May Have Opera House as a Nucleus”).6 He dreamt of an opera complex that would
reinvigorate the art form. Not surprisingly, Rockefeller’s idea generated an underwhelming
amount of corporate and public support, and he was forced to reconsider the plan. Eventually,
after months of negotiating, Rockefeller chose to realign the project with a medium decidedly
more modern. With the enthusiastic support of RCA, the project turned towards radio.

During a radio broadcast, his son, Nelson Rockefeller, the decision to highlight radio in the design of the Center was significant:

Since he had the property, there was only one thing for Father to do – develop it. The opera was “out” as a nucleus for development, and the question was left – was there anything that could take its place? The answer was – radio. Opera was the great old art; radio the new – the latest thing in this contemporary world of ours, the newest miracle of this scientific era, young and expanding (The Last Rivet: 17-18).

For Rockefeller, radio best embodied the cultural and technological potential of America. In addition to the economic promise of the new industry, radio provided the structuring metaphor for the complex – self-contained urban structures networked around a central square. Rockefeller Center was the first high profile development that self-consciously integrated an existing medium – not just as part of its content (businesses, shops), but as part of its physical design. One might look to the Times Building (1904) as an example of another structure tied to an exterior media format, but the extent to which the Times Building was constructed with the newspaper in mind is quite different. The Times Building was built to house a company, not reproduce the form of the newspaper. Another relevant project might be the Chrysler Building (1930). This top of the building was a literal representation of an automobile’s grill. Whereas the building was an explicit reference to an external cultural phenomenon, this was only a superficial representation. Rockefeller Center, throughout its extended planning and building process, more closely resembled the media it invoked.

In fact, what is known today as Rockefeller Center was originally to be called “Radio City.” For Rockefeller and his team of architects and developers, this was exactly what was required to infuse the space with popular appeal. “Here, in midtown New York, would be the
headquarters of modern technology and the new home of radio, the common man’s friend. Science, Progress, and Democracy – such were the powerful symbols which RCA’s Radio City bestowed upon Rockefeller’s projects” (Karp: 27). Once the idea of a radio city was introduced to the public, speculative musings in newspapers and magazines proliferated.

Raymond Hood, the most prominent architect on the Rockefeller Center team, set the tone for the public’s speculation. In a 1929 interview “A City Under a Single Roof,” he explained that the future city was to embrace the skyscraper as the primary method of interconnection in the urban network. The future city was to be “founded on the principle that concentration in a metropolitan area…is a desirable condition. The Unit Building, covering three blocks of ground space, will house a whole industry and its auxiliary businesses…The first ten floors house stores, theaters and clubs. Above them is the industry to which the Building is devoted” (Tisdale). Essentially, Hood wanted to create, in a fashion represented in Ferriss’ “Imaginary Metropolis,” skyscraper clusters perfectly spaced throughout Manhattan. In his plan “Manhattan 1950,” Hood rendered this scheme in a series of models and drawings. It consisted of 38 “mountains” (or skyscrapers) positioned every ten streets on a grid. This “New Scale” of the city, as Hood called it, was the perfect combination of pragmatism and idealism needed to realize the networked city of the future. His plans for Radio City consisted of constructing one of these “mountains” as a prototype for his grand design.

Because of Rockefeller’s reputation for philanthropy and Hood’s increasingly high profile in the project, many expected Radio City to be an exciting representation of the media’s future. But when the initial plans were unveiled on March 5, 1931, the public was
shocked by how corporate (and soulless) the project appeared. The *New York Herald Tribune* condemned the plans: “The crux of the business is that Radio City is ugly. Its exterior is revolting and dreary” (qtd. in Karp: 27). The public generally met the project with scorn – Rockefeller’s project became fodder for cartoonists and Broadway plays. For example, in 1933, the Broadway comedy *As Thousands Cheer* made fun of Rockefeller with a skit depicting him attempting to sell the property to his father. Throughout the remainder of the project’s development it endured constant scrutiny from the mainstream press – newspaper stories appeared detailing the projects’ financial troubles. After RKO filed for bankruptcy insurance in 1933, and RCA appeared to be in the throes of financial turmoil, the ideological foundation of the development seemed to be collapsing.

With brewing economic troubles, much had changed in the project’s planning by the end of 1931. Rockefeller began looking outside the United States for investors and found quite a bit of interest. British and French syndicates played a huge role in reinvigorating the project, each of them leasing buildings and instilling the project with the international appeal needed to boost domestic confidence ("Rockefeller City Adds French Unit"). It was not that foreign companies were eager to have a presence in New York; they wanted specifically to be involved in New York’s entertainment center. Having a presence in the radio nexus of America was an attractive selling point for entertainment companies wanting to compete with the US stronghold. This international interest drastically boosted domestic confidence in the development ("Rockefeller Name for Radio City Units").

But while wrangling over financial backing was in progress, construction on the overall project continued. In February of 1932, as the new British Empire Building was going
up, the name of the project was officially changed to Rockefeller Center. However, the name Radio City was not entirely abandoned. The most spectacular of the project’s buildings maintained the titular connection to the medium. On December 27, 1932, Radio City Music Hall opened its doors. A project headed by Roxy Rothafel, Radio City Music Hall was intended to be the largest theater in the world. Roxy boasted of his theater in a promotional flier: “In grandeur of conception, in glory of planning, in perfection of fulfillment nothing like Radio City has ever been dreamed” (qtd. in Koolhaus: 180). Its stage was to measure 110 feet across with a 50-foot revolving section in the middle. Electrical elevators on either side of the stage were to transport actors and animals to and from the wings in the quickest time possible. Its auditorium was to seat over 6000 people. Everything about the Music Hall was hyperbole. Even its design was supposed to represent the most grandiose of landscapes – a sunset. This motif is described nicely by Rem Koolhaas in Delirious New York: “The sunset theme is established through a series of consecutive plaster semi-circles that diminish toward the stage to create a vaguely uterine hemisphere whose only exit is the stage itself” (179). Unlike the very literal Beaux Arts style of most of New York’s movie palaces, the Music Hall, through its relative abstraction, redefined the architecture of fantasy. Without resorting to representationalism, the fantasy image was built directly into the structure of the grand auditorium. The most sublime of natural landscapes were now possible in New York’s new mediated environments. According to Roxy, “a visit to Radio City Music Hall is as good as a month in the Country” (“Debut of a City”).

The essential element to the theater’s interior design was its invocation of radio, or “visual jazz” as one critic called it. The semi-circles radiating from the stage was an
architectural display of the technology that defined the complex. A promotional book describes the interior this way: “It is a space that seems to pulsate and throb, the feeling of life and motion intensified by the ceiling’s unique design: eight enormous arching bands that seem to radiate from the stage like waves from a giant source of light” (qtd. in Karp: 85).

Ultimately, Radio City Music Hall was based on a machine aesthetic, consistent with radio. The interior designer Donald Deskey had set out to make the space “completely and uncompromisingly modern in effect” (Karp). He used industrial materials, aluminum statues, designed gun-metal mirrors and lighting fixtures made from steel, chrome and bakelite. Every aspect of the theater was designed based on its relationship to modern technology.

“America was the first country,” according to Pierre Francastel, “to devise a new architecture based on the technological imperatives of the machine” (110). The Music Hall was conceptualized as the culmination of this American machine fetish. It was built to display the potential of the city as manifested in the new media.

Rothafel’s futuristic conception of Radio City Music Hall was challenged only by his nostalgia for the old theatrical tradition. He had made a name for himself in the New York theater world by establishing the movie-plus-stage-show format wherein silent films were coupled with vaudeville acts to compose the evening’s entertainment. This formula led him to become the most successful movie theater manager in the country. But when Rothafel was asked to take charge of the new theater in Rockefeller Center, he saw it as a return to the old style theater. He believed that the movie-plus-stage-show format he had invented was doomed because of the coming of sound pictures. “Talkies” would be able to sustain themselves without assistance from live performances, he thought. His new innovation was to
establish a “super variety show” to fit within his “super theater.” “Talkies” would be relegated to the smaller, 3500-seat “New Roxy Theater” that was located just a block south on Sixth Avenue, but still part of the complex.

The opening night gala at Radio City Music Hall would quickly reverse Roxy’s dream of a pure variety theater. On December 27, 1932, 6000 people showed up to witness the six-hour live stage extravaganza that included choral singing, skits, dramatic vignettes, comic routines, and of course the “Rockettes.”

The “super-vaudeville” to which Roxy aspired was a total flop – the audience didn't have the patience for the saccharine nostalgia of the long-winded performance. Within two weeks the production had lost $180,000. In desperation, RKO (the company that controlled the theater) switched back to the movie-plus-stage-show format, essentially condemning the New Roxy Theater to a long twilight existence until its demolition in 1954. The movies had won out. Despite Roxy’s nostalgic desire to reinvigorate vaudeville, the spectacle of the motion pictures could not be removed from the spectacle of the Music Hall. Its size and grand design, cinematic from its inception, was consistent with the cinema’s connection to speculative architecture. The Music Hall was to be a national symbol of the kind of architecture capable of containing the cinematic image. This was, from the beginning, part of the logic of the development – to use the mass media contained within its borders to communicate the promise of the space.

And this is precisely how radio functioned within the complex as a whole. By May 1933, the “Radio City” portion of the project was completed. Of this, the 70-story RCA Building was its centerpiece. According to one commentator, the RCA building was “the dominating vertical note of the development. The open spaces provided by the promenade
and the Forum will allow passersby on Fifth Avenue to have an unobstructed view of the imposing tower and the great eastern entrance at street level” (Rockefeller Center: 16). Like in Ferriss’ metropolis, the spectator gazes upon the main structure from the surrounding open space. The RCA Building is equivalent to one of Ferriss’ “centers” - the slender vertical tower broadcasts the idea of the city within a city.

Indeed, the RCA Building became the literal origin of most national radio broadcasts. According to a promotional book:

The Radio Corporation of America and the National Broadcasting Company will occupy more than one-third of the office and studio space in the RCA Building. Twenty-six broadcasting studios in this building will be supplemented by six audition rooms. One studio, the largest in the world, will be more than three stories high. The others will have a height of two stories. All the studios will be electrically shielded and provided with suitable lighting facilities for television. Many of them will have observation galleries for visitors” (Rockefeller Center: 16).

From the inside, the building functions as New York’s predominate origin of radio (and later television) waves. Audiences could gather around the studios and watch as the broadcasts originated. From the outside, it served as the central antenna-like tower, figuratively allowing for the surrounding buildings to communicate through the ether. As Rem Koolhaas famously observed: “Rockefeller Center is the first architecture that can be broadcast” (172).

This quality permeates every façade of the RCA building. Art objects celebrating the connections between the new development and new media were sprinkled throughout the space. On the east facade of the RCA Building, Lee Lawrie’s sculpture is a grandiose salute to the industry. Entitled, *Genius, Which Interprets to the Human Race the Laws and Cycles of the Cosmic Forces of the Universe, Making the Cycles of Light and Sound*, the long-bearded Zeus-like character is shown transmitting what can only be construed as light and sound from
his fingertips. In a curiously classical celebration of the modern, Lawrie intends RCA to be the genius – the only conduit between the ether and the infinite information stream that travels within it.

Another sculpture over the 49th Street entrance of the RCA building attempts to visually represent the inchoate technology of television. Leo Friedlander’s work, entitled *Transmission Receiving an Image of Dancers and Flashing It Through the Ether by Means of Television to Reception, Symbolized by Mother Earth and Her Child, Man*, is actually composed of two sculptures, separated by three windows. On the left, a goddess figure (Transmission) holds her right hand up to a dancer in motion. On the right, a similar goddess figure (Reception) is presenting a miniature version of the dancer to a woman and her child (as the title suggests, mother earth and man). Transmission and reception are female figures that, in a sense, give birth to the image. The work ultimately suggests that the image, until RCA benevolently delivered it to mankind, was inaccessible. As one approaches the entrance on 49th Street, the sculptures are positioned to each side of the entrance. Centered over the door are three non-descript windows. The sculptures frame them and draw attention to the empty space in the middle. The sculptures highlight the invisible space where the image is being flashed through the ether. The ether then is linked to the building’s unremarkable fenestration, ultimately suggesting that even the most banal spaces are packed with invisible images in transit.

The art ornamenting the facades throughout the complex is anything but subtle. Even Rockefeller himself found most of the art in Radio City “gross and unbeautiful” (Krinsky). But the public, overwhelmed by the grand development, liked Rockefeller Center “art work
and all” (Krinsky). Despite the cultural derision only a short time before the opening, Rockefeller Center was for most New Yorkers a welcome celebration of a lucrative medium and the “unbeautiful” art was warmly received as a kind of victory stele – in celebration of architecture’s domination of media. The historian Kenneth Frampton summarized this well when he referred to the center as “the new Babylon born of euphoria” (Frampton).

Rockefeller Center, Inc. described the complex, without irony, in equally elevated terms:

Rockefeller Center is not Greek, but it suggests the balance of Greek architecture. It is not Babylonian, but it retains the flavor of Babylon’s magnificence. It is not Roman, yet it has Rome’s enduring qualities of mass and strength. Nor is it of the Taj-Mahal, which it resembles in mass composition, though in it has been caught the spirit of the Taj – aloof, generous in space, quieting in its serenity (Rockefeller Center: 38).

Through this hyperbolic language, the passage makes clear the earnest, yet grandiose intentions of the Center. By comparing it to classical architectural monuments, this new monument of corporate consequence embodied the cultural significance of the past, done not through the mediation of history, as all these other examples imply, but through the mediation of corporate mass media. Radio was to take the place of history; in the design of Rockefeller Center, the medium was indeed the message – the theoretical and real radio waves within the complex were at the core of the development’s urbanism. Amongst the tall buildings and entertainment complexes, Rockefeller Center ultimately put radio broadcasting on display. According to the promotional book, “Rockefeller Center will be a beautiful entity in the swirling life of a great metropolis – its cool heights standing out against an agitated man-made skyline” (Rockefeller Center: 38). As the sinking of the Titanic in 1912 demonstrated, the notion of electrical messages swirling through the invisible spaces of the city at a constant rate
was a promise of the future’s stability. The secrets of the sea were conquered; the distances between people were made insignificant. Within the perpetual motion of radio technology, the city could be quieted, slowed to the point where it was accessible to the spectator. Rockefeller Center, through the logic of the network, attempted to do just that – it “promise[d] a significant contribution to the city planning of an unfolding future” (Rockefeller Center: 38).

**Within the Unfolding Future**

Opening just before the completion of Rockefeller Center, the 1939 New York World’s Fair amplified the formal trends attempted in that development. Conceived during the height of America’s depression, the fair’s theme, “Building the World of Tomorrow,” was pointedly directed toward reconfiguring the sightline of the American urban spectator away from the immediately proximate in such a way that Grover Whalen, the president of the World’s Fair Corporation, referred to as “project[ing] the average man into the World of Tomorrow” (Affairs: 13). The Fair was meant to be a burst of optimism at a time when most people were feeling disenchanted and disengaged from the country’s future. From the first announcement of the Fair’s theme in 1936, Whalen’s goal was to give the future over to the “average person” by making its vision simple, streamlined and accessible through consumption. In the Fair’s official guidebook, Whalen wrote “this is your fair, built for you, and dedicated to you” (qtd. in Susman: 18). According to historian Warren Susman, no previous fair had developed such rhetoric of popular appeal. The Fair’s planners wanted “the World of Tomorrow” to be void
of pretense and abstractions. The future was to be presented entirely from the raw material of
the familiar.

As a means of achieving this familiarity, the Fair showed particular emphasis on
process over product. Even though the future at the Fair was reducible to consumer products,
each of the technological displays emphasized the familiarity of the machine so as to make the
social ramifications of the technology less frightening. In all cases, the technology was in
service to the human: from the highway that could rescue the urban dweller from congestion
to Elektro, the Westinghouse robot who could perform everyday menial tasks. The world of
tomorrow was not on display as an object of curiosity; it was a consumer intervention in a
very real world of today. It was simple and easy to understand. In fact, the future was far less
complex than the present. According to Grover Whalen, “simplicity must be the keynote for a
perfectly ordered mechanical civilization” ("Floating Sphere to Dominate Fair").

Distinct from Chicago’s 1933 “Century of Progress” exposition, the New York Fair
was not intended to be a far off fantasyland; the world of tomorrow was possible with the
technology of today. “The world of tomorrow,” whispered the announcer in the popular
Futurama exhibit, “seen from the world of today.” According to Henry Dreyfuss, the designer
of the Fair’s “Theme Center,” the city presented at the Fair was “not some dream city of the
future, but a dream city of tomorrow morning, a place to live and work that uses only
materials and devices that are at our command today" ("Magic Carpet to Take Visitors into
the World of Tomorrow"). Speculations were only as powerful as they were grounded. The
familiar position of the spectator (we learned from Ferris) was essential to imagining the
future. So the “materials and devices” to which Dreyfus refers, surely included technologies
of commerce and industry, but it also included technologies of spectatorship. It is the case that organizing the conditions through which one looked at the future was central to the speculative architecture at the Fair.

This was demonstrated in a number of ways. The most immediate was the Fair’s general layout. The centerpiece consisted of three central structures: the perisphere, the trylon, and the Helicline; or, in other words, a sphere, an obelisk and a spiral staircase connecting them. The combination of these structures, known as the “theme center” became the literal and symbolic center of the Fair. All of the other buildings and exhibits radiated outwards from it, creating an orderly distribution and circulation of buildings and people (Santomasso). Whalen sought to communicate order, unity, and a comprehensive urban experience through the unifying force of consumer technology. “The visitor to the Fair was to be thrust into the full-blown Age of Consumerism and Age of the Machine” (Santomasso: 29). In some ways, little had changed since Burnham tried to build an experience of a whole city into architectural form. But in New York, the parts were not meant to collide into a singular experience of the city; rather, each sector was to be a unique and compartmentalized manifestation of urbanism, always networked to a distant symbol of the whole. The 610-foot trylon became the literal and figurative manifestation of this. According to Dreyfus, the trylon was the “voice of the fair.” It was the tallest structure on the grounds and it housed a broadcast station and radio antenna – making it visible and audible from every location.

As television broadcasting was introduced at the Fair, the promise of radio waves undoubtedly rested with each visitor. The first public television event took place at the Fair on April 30, 1939, with a telecast of President Roosevelt delivering the opening remarks. The
prospect of pictures traveling through invisible space made the presence of radio waves in the city that much more apparent. The Trylon served as a constant reminder to the Fair’s visitors that the surrounding space was not empty.

These themes became explicit in the Fair’s two most popular exhibits, both of which were immersive representations of the city of tomorrow: Democracity and Futurama. Democracity was housed inside of the 160-foot Perisphere and was a vast representation of a clean, perfectly organized city of sectors (set in the year 2039), where industry, commerce and housing were spatially separated and connected by vast highways. According to the writer David Gelernter, “in the future you would no longer have to live in a city just because you worked in one. You would live in the countryside or in ‘garden apartments’ around the city’s rim. Factory workers would live in green towns just like everybody else. You would drive to work, or to sprawling green parks in the countryside, not on packed city streets but on landscaped highways.” Gelernter concludes that “Democracity’s utopian World of Tomorrow amounts, in essence, to the modern suburbs” (Gelernter: 71). But while there are obvious similarities to what would become suburban sprawl, there exists important differences as well. Every ‘sector’ of Democracity had a direct and essential tie to the city. Modern suburbs require no speculation from the spectator; in fact, we might say that suburban form actively resists it. Modern suburbs are increasingly self-contained, and their dependence on the central city increasingly disparaged. In Democracity, however, like in Rockefeller Center and in Ferriss’ “City of Tomorrow,” the spectator, regardless of how remote her position, is reliably referred back to the “city” through projection or broadcast.
This practice of spectatorship was present not only in Democracity’s dijective abstraction, but in the exhibit as well. As spectators entered the Perisphere, they were guided over the city on what the *New York Times* called “a magic carpet.” “The traveler on the magic carpet will lose all sense of size and shape,” according to the *Times*, “he will be flying in space. Above him will be the heavens and firmament. Below him on either side is a city – Democracity, the city of tomorrow morning” ("Magic Carpet to Take Visitors into the World of Tomorrow"). Dreyfus likened the experience of being inside of the Perisphere to the experience of floating through the ether, with no conception of space and time. In this sense, Democracity was to be seen from the perspective of radio waves. The city of the future was presented to spectators as something accessible through the fantastic, yet familiar experience of the ether.

Futurama, the Fair’s most popular exhibit was presented in a similar manner. Only this time, spectators “flew” over the world of tomorrow in moving chairs. As the centerpiece of the General Motors exhibit, Norman Bel Geddes designed the world of 1960 that, not surprisingly, was organized around vast highways and the precipitous growth of the automobile’s popularity. In 1960, according to Bel Geddes, the city “has been designed for communal use and for the means of transportation which the community uses above all others – the automobile” (Geddes: 219). While the exhibit covered a vast world beyond the city, it had a distinct rhetorical focus on urban life. When the spectator first entered the Futurama exhibit, they were thrust into moveable chairs that “flew” them over pastoral landscapes to the city of tomorrow. At the ride’s conclusion, the chairs entered into open air where spectators found themselves in the midst of the Fairgrounds. They were, according to the *New York
“at an intersection of the metropolis of tomorrow, life size” ("Fair Visitors 'Fly' over U.S. Of 1960"). Immersed within the city, the spectator was meant to conclude that this form of urbanism was the culmination of technological progress. Returning to the familiar pedestrian perspective, the spectator was invited to consider the vast scale of this 1960’s city.

The city is spread out over a much larger geographic area than other models of the networked city, including Democracity and Ferriss’ “City of Tomorrow.” Highways, instead of radio waves, facilitate the separation of sectors. According to the promotional film, To New Horizons, released by General Motors in 1940, “residential, commercial, and industrial areas, all have been separated for greater efficiency and convenience,” with each city block “a complete unit in itself.” Like Raymond Hood’s “city within a city,” the city in Futurama was modular. Each unit was entirely self-contained, yet dependent on the whole. The actual position of the specific parts was of little consequence, because the urban highways would render proximate even the most distant regions.

The depiction of the city in Futurama complicated previously held assumptions about the city. No longer tied to a pedestrian scale, urban boundaries could spread well outside the traditional urban/suburban lines. It was difficult to ascertain where the city ended and the country began. Bel Geddes proposed that, “one must take into account the great popular impetus from the center outward. Great possibilities for the city lie in the land beyond it; the problem is to make that land accessible, to preserve it from exploitation that defeats its own purpose - in other words, to find a fruitful relation between city and country. Such a relation is a problem of approaches - a problem of communication (Geddes: 207). The Futurama exhibit featured in miniature, an entire American landscape, including farms, small towns, industrial
centers and amusement parks, networked together with an intricate superhighway system. This highway, promising travel from the East to West coast in 24 hours (wherein the speed and distance between cars was regulated by radio waves), could render the entire nation into a kind of urban network. Every city and town, every forest, and every river could be another functional aspect of a well-planned network of sites and resources. The narrator in To New Horizons boasts: “over space, man has begun to win victory.” Now, from the safety of his vehicle, he can ride in the ether across the vast expanses once only available to the invisible messages of radio. The speculative architecture of projection and broadcast could become “actual” through the new highway system. Instead of a visual or aural connection to the spectacle-at-a-distance, the city and nation could congeal into a consumable experience for the spectator through physical travel and presence. According to Bel Geddes:

Already the automobile has done great things for people. It has taken man out beyond the small confines of the world in which he used to live. Distant communities have been brought closer together. Throughout all recorded history, man has made repeated efforts to reach out farther and to communicate with other men more easily and quickly, and these efforts have reached the climax of their success in the twentieth century. The increasing freedom of movement makes possible a magnificently full, rich life for the people of our time. A free-flowing movement of people and goods across our nation is a requirement of modern living and prosperity (Geddes: 10).

For Bel Geddes, the automobile was the functional manifestation of radio waves. Free-flowing people along highways, like the orderly transportation of messages through the ether, became his practical model for the city of tomorrow.
Conclusion

Despite the success of Futurama, the 1939 World’s Fair turned out to be a financial failure. Whalen was removed from his position as president at the close of the season because he failed to bring in the crowds he promised. The board decided to extend the Fair another season as means of recouping some costs. The banker Harvey Dow Gibson was appointed as Whalen’s replacement and was given the charge of saving the corporation from bankruptcy and returning a profit during the coming season. He failed on the first count, but nonetheless was able to make the Fair profitable in 1940 by rearranging the message to appeal to rapidly changing American culture.

As the war in Europe began in earnest, Americans grew increasingly concerned over their impending involvement. And even though the managers decided not to broadcast news of the war at the Fair, it was certainly on people’s minds. Gibson responded to this perceived change in the culture by radically altering the Fair’s theme. “The World of Tomorrow” became “For Peace and Freedom.” The social issues, international in scope, that were highlighted during the first season were replaced by pure entertainment and a folksy celebration of the American way of life. Gibson believed that America wanted to escape into fantasy, not speculate about reality. As a result, there were few things that stayed the same between 1939 and 1940. The Soviet Pavilion became the “American Common,” and the Consumers Building became the “World of Fashion.” In one of the most telling changes, the Fair’s entertainment area was renamed “The Great White Way” – an obvious reference to Broadway. Gibson sought to realign the Fair with a kind of urban playfulness that was more visceral than cerebral. The speculative architecture at the Fair would seem to have been
recast as a celebration of the here and now; the eager longing for the City of Tomorrow was giving way to the demand for the city of today.

The space between the two seasons at the Fair was a turning point in urban spectatorship. On one side was the culmination of decades of speculative architecture that celebrated the play of the imagination, and on the other was the beginning of a realized city that left little to the imagination. The consumable urban experience cultivated throughout the 1930s incorporated the potentialities of the invisible ether and the distant promise of the visible skyline into the very fabric of the city. The 1939 World’s Fair brought that scale into focus for an American public eager to confront the problems of urban life. The idea of the future became an important weapon against the realities of the present. But this began to change with the 1940 World’s Fair. As the war rendered the future unpredictable and menacing, the present began to take on a much more appealing face. The imaginative expanse of the American city through the speculative medium of ether would not satisfy the increasing American desire for control. And as the war came to an end, Americans were eager to start their lives in a comfortable and reliable present. Play, regardless of how ordered, grew increasingly distant from the consumable experience of the American city. After the War, the cultural fascination with the future, space travel and the nuclear age looked outside of the traditional urban framework. The city, as a result, gave way to functional solutions justified by the emerging technologies of computation. As urban experience became associated with crime, disease, and ethnic otherness, and as middle class white spectators fled the inner cities in great numbers, American sought highly predictable, calculable, and reproducible solutions to the “urban problem.”
Works Cited


The picture shown, originally created as an illustration for a *McCall’s Magazine* article called “The Lure of the City”, was later displayed in the 1925 Whitney Biennial as one of four of Ferriss’ urban depictions at that show. This particular drawing was part of a section called “The Image of Urban Optimism.”

It took the invention of steel reinforced frames and the electronic elevator for buildings to rise above a certain number of stories.

The move to decentralize radio was by no means universal. A point of comparison is the Soviet Union, where a centralized radio better met the ideological needs of the government. In 1928, the Soviet Commissar for Education Anatoli Lunacharsky said this of radio: “We must gradually conquer the radio waves both inside and outside our country to promote our goal of creating a new arena in which our voice must resound and our truths ring out, and where a heightened class struggle will take place. We support and proclaim the principle of class struggle across the radio waves.” Streaming Audio archive, http://www.nic.funet.fi/pub/culture/russian/voices/realaudio/.


At the project’s beginnings, Hugh Ferriss, along with John Wenrich, worked on creating its renderings. However, Ferriss left the project early on, so his immediate influence on the final design is not obvious.

The property was leased for $90,000,000 for twenty-four years, or a yearly rental of $3,750,000, with a privilege of three renewals of twenty-four years each.

20% of the rentable area in the entire development was leased to the National Broadcasting Company, the Radio Corporation of America and affiliated interests.

At the time of the theater’s opening, the famous dancing girl troupe was actually called the “Roxyettes.” The name was shortened soon after opening night at the Music Hall.