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From Berlin to Broadacres: Central European Influence on American Visionary Urbanism, 1910-1935

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FROM BERLIN TO BROADACRES: CENTRAL EUROPEAN INFLUENCE ON AMERICAN VISIONARY URBANISM, 1910-1935

by

MARGARET E. HERMAN

A dissertation submitted to the Graduate Faculty in Art History in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

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This manuscript has been read and accepted for the Graduate Faculty in Art History in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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THE CITY UNIVERSITY OF NEW YORK
Abstract

FROM BERLIN TO BROADACRES: CENTRAL EUROPEAN INFLUENCE ON AMERICAN VISIONARY URBANISM, 1910-1935

by

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Advisor: Dr. Kevin Murphy

In the 1920s and 1930s, Eliel Saarinen, Richard Neutra, and Frank Lloyd Wright each designed plans for real and imagined American cities. Saarinen’s Chicago and Detroit plans of 1923-1924, Neutra’s Rush City Reformed of 1926, and Wright’s Broadacre City of 1935 are stylistically unique but all contain a similar fascination with hypothetical transportation networks and high-speed expansion that reflect a common relationship to the development of urban planning as a discrete field in Berlin and Vienna around 1910.

This dissertation will highlight several features of turn-of-the-century Central European planning that played an outsize role in the development of these visionary responses to machine-age American urbanism, including suburban extension and infrastructure projects, municipal planning exhibitions, and a model of metropolitan expansion propagated by Otto Wagner. It will also root Saarinen’s, Neutra’s, and Wright’s plans in their immediate context of interwar Chicago and Los Angeles, where the effects of the car and associated changes to the cityscape provided a rich backdrop for futuristic design. Finally, the dissertation will examine what these urban plans reveal about the perceptions of the new American car culture among modern architects.
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INTRODUCTION

In his 1943 treatise, *The City: Its Growth, Its Decay, Its Future*, Eliel Saarinen wrote, “But [urban] planning is more than dreaming. Planning is that conceiving faculty which must recommend ways and means of transmuting the possibilities or impossibilities of today into the realities of tomorrow. It must be concerned with the welfare of future generations, and it must find the solutions to satisfy this concern. In this spirit must planning be understood.”¹ For more than twenty years before Saarinen wrote this statement, the architect, along with Richard Neutra and Frank Lloyd Wright, developed urban plans that connected the present reality of congested American cities to a future image of ever-expanding metropolitan development that embraced population growth and utilized the most advanced transportation and communication networks to create comprehensive and comprehensible cities.

As the consequences of urbanization became more apparent in Europe and America at the turn of the twentieth century, by 1910 the relatively new field of planning began to propose a wide array of solutions. In the 1920s, many architects on both sides of the Atlantic turned to visionary planning, for two very different purposes. European planning was largely concerned with responding to post-World War I housing shortages, evident in the functionalist planning of the 1927 Weissenhofsiedlung in Stuttgart, Germany, or in the highly utopian City for Three Million or Plan Voisin for Paris by Le Corbusier of 1922 and 1925. In machine-age America, meanwhile, the recently-immigrated Eliel Saarinen of Finland and Richard Neutra of Austria, and later Frank Lloyd Wright, designed plans that were rooted more in concerns over the development and rapid popularization of the automobile, and the continued concentration of tall buildings in American cities. The focus of this dissertation will be on these latter plans –

Saarinen’s Chicago and Detroit plans of 1923-1924 (Figures 1 and 2), Neutra’s Rush City Reform of 1926 (Figure 3), and Wright’s Broadacre City of 1935 (Figure 4) – and a transatlantic conversation between the American and Central European planning fields that deeply informed them.

Saarinen’s schemes for Chicago and Detroit envisioned broad boulevards and waterfront plazas in both cities, with complex multilayered highways connecting major arteries with massively over-scaled parking garages intended to accommodate future population growth. Although Neutra’s Rush City and Wright’s Broadacre City were more imaginary in their conception, based respectively on a streamlined techno-futurism and a rural horizontality, they too contained hypothetical transportation networks and an emphasis on high-speed expansion that nonetheless incorporated astute projections of future population growth patterns and technological advancements. Although these projects were produced in direct response to the perceived problems of 1920s America, the exchange in which they are rooted actually occurred around 1910 between the cities of Chicago, New York, Berlin, and Vienna, surrounding a series of international expositions on urban planning organized by Werner Hegemann, the publication of Daniel Burnham’s Plan of Chicago and Otto Wagner’s recent infrastructure projects for Vienna, and a planning competition for Greater Berlin.2

Although the term “visionary” is imbued with a host of methodological problems, it is by now the standard term employed within architectural and urban planning history to describe unbuilt proposals like the ones under examination in this dissertation, and will be used throughout the following chapters. The term has typically been utilized by historians so flexibly

that its meaning has become obscured. According to the Oxford English Dictionary, the word “visionary” is defined as: “given to fanciful and unpractical views; having little regard to what is actual or possible; speculative, dreamy;” “utopia,” stemming from the peace-loving communitarian island culture described by Thomas More in 1516, is defined almost identically as “a plan for or vision of an ideal society, place, or state of existence, especially one that is impossible to realize; a fantasy, a dream.”³ Despite the OED’s view of visionary ideas being complete fantasy, on the order of utopia, the term “visionary” as used here will encompass a somewhat more complex definition. It will generally take on an essence that is similar to the word “prevision,” defined as “an instance of foresight; a prophetic or anticipatory vision or perception.”⁴ Consequently, “visionary” will also be used synonymously with “forward-thinking,” to clarify this anticipatory aspect and its connection to the realities of 1920s American urbanism. Saarinen’s, Neutra’s, and Wright’s plans for American cities were not completely outside of history or context like More’s Utopia; even though many of their architectural forms and models of infrastructure far outpaced reality, all three architects performed a wide range of qualitative and quantitative analyses of contemporary cities in order to project current population and urban growth patterns into the future.

Within the confines of architectural history, the term “visionary,” conflated with “utopia,” has been applied since the 1960s and 1970s to a variety of historical periods and architectural styles. Ulrich Conrads referred to examples of utopian planning from the early twentieth century as “the architecture of fantasy,” while Robert Fishman similarly aligned the

work of Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier in a book on “urban utopias.”\textsuperscript{5} Dolores Hayden wrote about American socialist utopias of the nineteenth century, while Jean-Claude Lemagny employed the term “visionary” to describe an even earlier phenomenon, the eighteenth-century revolutionary architecture of Etienne-Louis Boullée, Claude-Nicolas Ledoux, and Jean-Jacques Lequeu in 1968.\textsuperscript{6} While all of these books acted as highly valuable counterpoints to the traditional hierarchies of architectural history wherein built works were prized over imaginary ones, they tended to oversimplify the role of these projects within the careers of the architects who produced them, and too often separated them from the very real historical contexts in which they emerged.

Only since the 1990s have architectural historians utilized more precise terminology and fully embedded visionary architecture and urbanism into the longer cultural traditions to which they belong. These latter studies include works like Christian Thomsen’s \textit{Visionary Architecture: From Babylon to Virtual Reality} of 1994 and Terence Riley’s perceptive introduction to \textit{The Changing of the Avant-Garde: Visionary Architectural Drawings from the Howard Gilman Collection} of 2002.\textsuperscript{7} Thomsen’s formulation of visionary architecture is especially relevant to the way the term “visionary” will be used throughout this dissertation, and is based on his rejection of the traditional division between architectural reality and fantasy. Rather than seeing visionary plans as outside of history, apart from the norms of the day, Thomsen contended instead that the


dreams inherent to visionary architecture and planning “express the Zeitgeist of the current avant-garde.” Thomsen argued that throughout history, visionary thinking often arose during periods of crisis, and thus served a highly specific function to break convention and articulate a path forward: “[A]rchitectural fantasies are among those creations of the human mind that attempt to link today with tomorrow, and suffuse the present with a taste of the future.” This linkage between today and tomorrow is perhaps the most significant feature connecting Saarinen’s plans for Chicago and Detroit, Neutra’s Rush City, and Wright’s Broadacre City.

The purpose of this dissertation is three-fold: first, it will provide a much-needed reconsideration of urbanism as a critical factor in the careers of Saarinen, Neutra and Wright; it will examine how these visionary projects reflect the impact of the internationalization of planning and its development into a scientific, technologically-oriented field; and finally, it will work to highlight a key moment in the development of an American car culture, a moment in which the car and high-speed, complex infrastructure systems represented a means of recovering civic identity in the face of urban congestion, rather than the impediment to community life they came to symbolize later. Despite their largely imaginary forms, all three projects were viewed by their architects as hypothetical solutions to the problems of real cities.

Although the literature on American urban planning history of the 1910s-1920s is extensive, it has been focused on aspects of planning of somewhat less concern to architectural historians, including the small-scale garden suburbs of Clarence Stein and the Regional Planning Association of America, the bureaucratic operations of Robert Moses, and the more utilitarian

8 Ibid., 10.
9 Thomsen, Visionary Architecture, 7, 9.
transportation planning of the Regional Plan of New York and similar attempts in Los Angeles, St. Louis, and elsewhere.\(^{11}\) Studies connecting architecture with urbanism in the 1920s have likewise been primarily restricted to New York City.\(^{12}\) Furthermore, despite the clearly generative role their visionary urban projects played within their architectural careers, specific studies of Saarinen, Neutra and Wright have too often minimized their urban planning work and essentially decontextualized it from the wider transatlantic field in which they were all engaged.

The cutting off of these architects and projects from their contemporary context has also prevented historians from viewing them as part of a much larger web of professional connections and shared experiences. For example, both Saarinen and Wright attended the 1910 Universal Planning Exhibition in Berlin and were likely exposed to the work of Wagner, who exerted a deep influence on the younger Neutra in Vienna. Neutra would subsequently work for Wright in 1924 before moving to California, and Saarinen, by then based in Michigan, is known to have visited Wright at Taliesin in Wisconsin in the late 1920s.\(^{13}\) This simplified explanation of the myriad points of contact among these architects reveals a number of questions that will be explored further in the chapters that follow. First, why were Viennese and German models significant for Saarinen, Neutra and Wright? What is the specific visual evidence of this


influence in their visionary proposals for American cities? How can these proposals be situated within the discourses of American city planning in the 1920s-1930s? And finally, what can these plans tell us about the early perceptions of the automobile, before the more drastic post-World War II interventions of highways into center cities? In different ways, Saarinen, Neutra and Wright all presented visionary models that expressed a faith in the possibility of the car to support America’s seemingly unlimited population growth while retaining a civic culture, whether that culture echoed the City Beautiful, turned starkly futuristic, or reverted to an essentially agrarian way of life.

This dissertation will consist of seven major parts. First, this introduction will define the term “visionary urbanism,” and examine some of its manifestations in the late nineteenth century. From the Ringstrasse development in Vienna, to plans for new urban rail systems in Central European cities, to World’s Fairs, new skyscrapers, and the automobile in America, modern technology and high speed became increasingly associated with a futuristic, progressive view of the city and the architecture built within it. Chapter 1 will root Saarinen’s, Neutra’s, and Wright’s projects more specifically in relation to the development of urban planning as a field in Central Europe. Emphasizing in particular theories of transportation planning, the chapter will discuss the ways in which wholly modern ideas about circulation, urban extension, and the accommodation of population growth were propagated by figures like Camillo Sitte and Otto Wagner in Vienna, and by several competitions and exhibitions held in Berlin. Chapter 2 will align these concepts with parallel themes in American urban planning that emerged over the next two decades, forming a more immediate backdrop to Saarinen’s, Neutra’s, and Wright’s plans developed in the post-World War I period. The chapter will highlight the planning debates that arose with the advent of new modes of transportation like electric rail and especially the car in
the 1910s-1920s, and the resulting congestion that made planning ever more urgent. Because Chicago and Los Angeles featured prominently in the three architects’ personal experience, those two cities will be the primary sites for this study of a high-speed planning discourse related to car culture. However, New York City will also be scrutinized for the important role it played as a restricted, skyscraper-ridden foil against which Saarinen, Neutra, and especially Wright reacted in their urban visions for America. Chapters 3, 4, and 5 will contain detailed analyses of Saarinen’s Detroit and Chicago civic center projects, Neutra’s Rush City, and Wright’s Broadacre City, situating them firmly within this historical context. These chapters will trace shared connections and themes and describe how these projects make clear a belief in the transformative power of automobile-oriented infrastructure. Finally, the conclusion will relate the plans, which are largely reflective of a period of visionary optimism about the car, to later developments, considering in particular the interventions of Robert Moses and the critical interrogation of the car’s effect on central cities that followed.

All three architects were affected by the urban settings where they lived in the early twentieth century, but also by the vast disconnect they saw between their abilities and their struggles to find work and make a career within the mainstream structures of American architecture and planning during the 1920s. As relative outsiders to the profession during this period, Saarinen’s, Neutra’s, and Wright’s hugely ambitious visions for the future city of the Midwest and West functioned as creative outlets to generate ideas, and as promotional materials to garner clients and publicity. Using the definition of “visionary” outlined above, and expanding on Thomsen’s articulation of the ties between contemporary context and visionary thinking, this dissertation will explore the ways in which the embodiment of progressive,
technology-focused, high-speed futurism seen in all of the plans studied here shaped the development of early car culture within the fields of American architecture and planning.

In both America and Central Europe, the linking of modern technology to a positive, progressive view of city planning had a history dating back to the mid-nineteenth century, and largely coincided with the rise of urban reform movements on both sides of the Atlantic. The rest of this introduction will examine several broad features of late nineteenth- and early twentieth-century urbanism that made outsize contributions to the type of comprehensive, futuristic urban design seen in the later plans by Saarinen, Neutra, and Wright. In Austria and Germany, these included a push for urban extension, an obsession with efficient circulation, and ultimately the development of urban planning as a distinct scientific field, while in America, a wide variety of social reform efforts, utopian theories, and technological innovations added further fuel to the development of a visionary conception of urbanism. For Saarinen, Neutra, and Wright, this was a conception that argued that the inevitable population growth and continued popularity of cars in the future city should be embraced, and not restricted, through an assortment of high-speed, high-tech, decentralized solutions.

It was in Central Europe that urban planning first developed as a scientific field by the turn of the twentieth century. The need for organized planning was made urgent in cities like Berlin and Vienna by an extremely rapid and comparatively late industrialization process. In Vienna, heavy industry developed on the outskirts of the city. Peasants throughout the empire were freed from their feudal obligations in 1848, and with the help of new railways connecting city and province, began to urbanize in huge numbers. Thanks to this shift from the country to the city, the population of the inner city and suburbs of Vienna grew from 431,000 in 1850 to 810,000 in 1890, while in the outer industrial districts of the city the population grew from
67,000 in 1850 to 600,000 in 1890. At the beginning of the twentieth century, Vienna had more than two million inhabitants, and served as both the economic and administrative engine of Austria-Hungary. 

Berlin also experienced enormous population growth in the second half of the nineteenth century, particularly after German unification, growing to around 1.6 million residents by 1890. Berlin’s growth rate was faster than Paris, Vienna, or nearly any German city except the new centers of heavy industry in the Ruhr. The economic growth that occurred in this period, in which Germany became a major industrial and military force in Europe, led to over 15.5 million people moving to cities between 1890 and 1910. By 1910, 60 percent of the German people lived in towns, and more than 20 percent of people lived in cities larger than 100,000 people, compared to only 4.1 percent in 1871. As the urban theorist Karl Scheffler would write in 1920, Berlin became in the post-unification period of 1879-1914 “a colonial city whose suddenness of development had more in common with American cities than with the old metropolises of Europe, recklessly expanding, violent and established in a kind of no-man’s land, far from the terrain of European culture.” Although this statement seems to overstate Berlin’s isolation from the rest of Europe, it gives some idea of the shocking shift that had occurred there.


since the nineteenth century. During this period, both cities experienced a hyper-concentration of commerce and density of population in the urban core that resulted in slower circulation throughout the city; these issues focused the attention of government officials on urban planning. ¹⁸

In Vienna of the 1850s, though, circulation problems created by urbanization and industrialization were only just becoming apparent; the old central section of the city and its fortified walls dating to the medieval period could no longer contain the masses pouring in from the countryside. Over the course of the next fifty years, three major urban planning interventions served to catalyze the visionary trend that would emerge in fuller force in the first decade of the twentieth century. The Ringstrasse building projects of the 1860s-1880s, the Competition for the General Development Plan of Vienna of 1893, and the Vienna Stadtbahn system of the mid-1890s represented vast changes in both the physical and conceptual landscape of the city. For Austrian architects and theorists of urbanism, these shifts were potent symbols of the new modern world. For those with visionary tendencies, like Otto Wagner, the transformations to the cityscape of Vienna deeply informed their desire for unlimited expansion.

The development of the Ringstrasse zone was a response to urbanization initiated by Emperor Franz Josef in 1857. The project would replace Vienna’s old city walls with a new boulevard, monumental public works, and housing to accommodate the industrializing and rapidly expanding city. To accomplish this massive building project, the emperor established a City Expansion Commission, which ultimately decided to remove the fortifications constricting the old city from growth. The commission, funded primarily by private-sector land and building speculation, decided to leave the historic center intact, completely destroy the fortifications, and create a new “ring road” zone (Ringstrasse) that would connect the inner and outer segments of the city.

the city. From the 1860s to the 1880s, a series of independently conceived monumental building projects were developed to fill this broad circular avenue, integrating a wide assortment of cultural institutions, government buildings, apartment houses, parks, and new streets that resulted in a complicated dialogue between the old and new Vienna (Figures 4 and 5). The buildings of the Ringstrasse were designed in an extraordinarily eclectic range of historical styles, which included the Neo-Gothic Town Hall and Votive Church, the Neo-Renaissance Museum of Applied Arts, and the Greek Revival Parliament Building, among many others.

Politics were a critical part of the development project, as noted by Carl Schorske and Harry Mallgrave. Hapsburg Austria’s political fortunes fell dramatically as Prussia became the leading power in Europe after unifying the other German states and defeating France by the early 1870s. Yet despite the political disarray in which the city found itself, Vienna’s cultural sphere was characterized by a certain optimism and aesthetic excess. Mallgrave thus viewed the monumental Ringstrasse building projects as an attempt to compete with the rest of Europe, and especially Berlin, through a “Second Renaissance,” while Schorske saw a paradox between Vienna’s vibrant cultural life and its constrained political ambitions in the late nineteenth century. For the liberal middle classes in particular, the Ringstrasse projects became symbolic of a bid for power in Viennese society. As important as these political aspects were, it was the radical change in Vienna’s physical environment over the second half of the nineteenth century.

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20 These buildings include, among others, the Academy of Fine Arts, the Austrian Parliament Building, and Vienna’s city hall. See Blau, “The Historical City,” 52. For more detail on the public works carried out during the Liberal and Christian Socialist municipal administrations see Paul Kortz, *Wien am Anfang des XX. Jahrhunderts* (Vienna; Verlag von Gerlach und Wiedling, 1905-1906), 2: 61-67.

that left an indelible impact on those architects like Otto Wagner who turned to a more visionary conception of urban development in the decades that followed.

In Berlin, changes to the cityscape were driven less by the destruction of the old than by the creation of the new, specifically in the drive towards extension planning as the city’s method of controlling growth.\(^{22}\) Extension plans, typified in the Hobrecht Plan of 1862, were primarily concerned with practical questions of traffic flow, land development, and municipal bureaucracy, rather than any unified aesthetic system. In 1858, the Prussian government asked the police authorities in Berlin to produce a plan for the large-scale extension of the city. The plan was designed by James Hobrecht, an official in the police building department, and consisted of a *Bebauungsplan* (Physical Development Plan) for Berlin’s future that was published in 1862 and remained in force until 1919 (Figure 7).\(^{23}\) The underlying assumption in the plan was an anticipation of growth to four million inhabitants, a number that must have seemed absurd, but perhaps inevitable given past growth.\(^{24}\) This was not a state-mandated building code, but rather a pure street plan, in which Hobrecht designed a skeletal series of vast streets between twenty-five and thirty meters wide, interspersed with public squares. In theory, this frame was supposed to be subsequently filled in with narrower side streets and more generous green spaces when the plan was put into place, but in reality these additions fell by the wayside.\(^{25}\) Hobrecht’s plan did however accommodate existing roads and property lines wherever possible, but contained little if any regulation of private land. This led to enormous land speculation, and construction of

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buildings geared towards making profit, not artistic statements.\textsuperscript{26} Ernst Bruch criticized the plan in a series of articles he wrote in the \textit{Deutsche Bauzeitung} in 1870, arguing for the state’s responsibility and control over major traffic thoroughfares in the city, leaving only the side streets to developers.\textsuperscript{27} Because of this tendency towards speculation, and the influence of private developers over a relatively weak municipal government, the Hobrecht plan was largely seen as a failure.

Tensions arose between Berlin and the surrounding municipalities, rural districts, and communities due to rapid suburban growth in the 1880s and 1890s that grew out of the problems with speculation and inflated land values in the central areas. Towns like Charlottenburg and Spandau, as well as some of the rural districts directly adjacent to Berlin, began growing more quickly than the city itself.\textsuperscript{28} From the 1890s forward, Berlin more seriously considered annexation of these communities, for the city to accommodate the growing population while maintaining a cohesive identity, and for the suburbs to secure better utility and communication services.\textsuperscript{29} In comparison to the fairly disjointed Hobrecht plan, German planning now turned to comprehensive decentralization as the solution to these problems with speculation and inflated land values.\textsuperscript{30} Competitions were held to plan new areas of cities like Cologne and Düsseldorf.


\textsuperscript{28} Matzerath, 297.

\textsuperscript{29} Ibid., 303.

after old fortifications were removed, and to annex outlying towns and villages. Joseph Stübben and Karl Henrici won the top prize at the 1881 competition for the extension of Cologne with a plan for a Ringstrasse with streets branching off. Their project was distinguished for its concern given to meshing the newly built up area with the structure of the existing city, especially through improvements to the city’s transit system. According to Brian Ladd, this drive towards the expansion of German cities exemplified urban planners’ desire to solve the problems of hygiene, traffic congestion, and social life of the modern industrialized city, representing “an attempt to make the best of the apparent loss of any effective social and geographical unity in the cities.”

This last idea, about the desire not just for decentralization but for a conception of the metropolis centering simultaneously on the anticipation of enormous population growth and retention of civic identity, is a key part of the later moves toward visionary urbanism in the U.S.

Viennese planning in the late nineteenth century also experienced an impulse towards comprehensive planning, symbolized by the city’s 1893 competition for a new regulatory plan (Regulierungsplan). This impulse arose for a number of reasons, and was expressed in several different ways. Despite the opening up of the Viennese Ringstrasse, the administrative and physical separation of the old central city and rapidly developing suburban periphery that accompanied industrialization had become by the late 1880s a major obstacle to full-fledged modernization. Throughout the larger metropolitan area there were streets that went unpaved, a lack of proper sewage and other utility systems, and disorderly transportation networks.

Visually, the cityscape was a chaotic jumble of form and style after three decades of speculative

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33 Blau, “The Historical City,” 53.
34 Ibid., 72.
development governed only minimally by state building codes.\textsuperscript{35} Meanwhile, the urban congestion and disorganized separation of residential, commercial and industrial functions that were hallmarks of late-nineteenth century Vienna created modern anxieties and frustrations like commuting that were increasingly felt by even the uppermost echelons of society. In December of 1889, the Vienna City Council voted to expand the municipal borders and incorporate forty-three suburban villages into what became known as Greater Vienna, an action that went into effect at the start of 1892.\textsuperscript{36}

To an even greater degree than in Germany, in Austria the incorporation of Greater Vienna and the idea of metropolitan expansion were emblematic of a marked theoretical shift towards comprehensive planning around 1890, which is to say, towards a conception of planning that would account for the future growth of the whole metropolis. Comprehensive planning in Vienna was rooted in two big ideas: first that the explosive rate of population growth of the late-nineteenth century would continue well into the future, and secondly that planning should reflect the organization of the city as a biological organism, an organism that operates as a system whose parts function as a larger whole.\textsuperscript{37} These ideas formed the underlying framework for new theories of zoning and technical infrastructure that rationally organized the entire metropolitan area into different functional roles while maintaining, a fully connected urban quality.\textsuperscript{38} How these ideas are manifested in the especially influential theories of Camillo Sitte, Josef Stübben and Otto Wagner will be discussed in more detail in Chapter 1.

\textsuperscript{35} Banik-Schweitzer, “Urban Visions, Plans, and Projects, 1890-1937,” in Shaping the Great City: Modern Architecture in Central Europe, 1890-1937, edited by Eve Blau and Monika Platzer (Munich: Prestel, 1999), 59. There were apparently few building regulations in late 19th c. Vienna; the state or an agency would issue loose guidelines under which various property owners could reach unique decisions and styles.


\textsuperscript{37} Blau, “The City as Protagonist,” 72. See also Baumeister; Collins and Collins, Camillo Sitte, 44-46.

\textsuperscript{38} Banik-Schweitzer, 60-61; Blau, “The City as Protagonist,” 17; Collins and Collins, Camillo Sitte, 44-46.
The expansion of Vienna inspired the city council to commission an international competition for a general development plan (Generalregulierungsplan), inclusive of the new suburban areas, that would feature a host of improved utility and infrastructure systems. The competition program was adopted by the council on May 6, 1892 and published in the journal of the Austrian Association of Engineers and Architects that month.\textsuperscript{39} The competition was publicly announced in October of 1892, with submissions due the following year.\textsuperscript{40} The competition brief for the General Development Plan gave primacy to issues of circulation and sanitation, calling for new ideas about public transportation, modernization of the street plan, and a system of controlled expansion according to new zoning rules based on functional divisions throughout the city.\textsuperscript{41} In comparison to earlier attempts to manage Vienna’s growth, the development plan competition for the first time conceived of the city in its entirety, arguing for the installation of various transportation and utility networks; the competition called for an analysis of the city in terms of its constituent parts in order to, as Eve Blau puts it, “reassemble those parts rationally into a (theoretically) infinitely extendable urban grid.”\textsuperscript{42} In addition to the hygienic and rational street layout required by the competition brief, the two winning projects for the development plan, by Josef Stübben and Otto Wagner, both highlighted communication and transportation

\textsuperscript{39} Zeitschrift des Österreichischen Ingenieur- und Architektenverienes 22 (1892): 340-44.
networks across the metropolitan area.\textsuperscript{43} The broad scope of Wagner’s 1893 project for a new development plan of Vienna anticipated many of the proposals in his 1911 \textit{Die Grossstadt} article described in the next chapter, particularly with regard to traffic, block planning, the height of buildings, the creation of squares, and the role played by monumental buildings. Wagner emphasized the necessity of public rail transportation (both elevated and underground), as well as radial and ring street organization, seeking to accommodate growth while preserving the essential character of Vienna as an urban center. Wagner’s plan additionally foreshadowed the deep interest in high technology, in multi-level and multi-functional transportation systems, and in hyper-efficient circulation within the city that appear in a more exaggerated, visionary form in 1911.

Wagner in his 1893 plan (Figure 8), in contrast to those of his competitors, designed a comprehensive solution to the problem of the modern metropolis that could be applied to virtually any city, not just the specific context of 1890s Vienna. In the report, he complained about the eclectic historicism that had run rampant throughout the city, preferring instead an approach focused on efficient circulation via straight streets, interrupted occasionally by monuments and squares, which would meet the needs of modern times.\textsuperscript{44} Rather than a grid system, however, Wagner based his plan for future urban growth on radial traffic patterns, placing successive new ring-road systems around the existing city as the metropolis expanded outward. Public buildings and transportation facilities would be situated at intersections between the radially-extending streets and the new ring roads, which would, according to Wagner,

\textsuperscript{43} On Stübben, Collins and Collins, \textit{Camillo Sitte}, 45-50, 348-350. Wagner’s scheme was published twice: once privately at his own expense, on 1 March 1894, and again in the \textit{Zeitschrift des Osterreichischen Ingenieur- un Architekten-Vereins} 9 (1894): 128-130.

guarantee equal distribution of goods and services to every district of the growing city and reduce the burden on the central core. Instead of illustrating how industry, residences or offices would be integrated, Wagner gave primacy to transportation as the function that could unite the greater metropolitan area into a single unit. Stating that “our realism, our traffic, and modern technology imperatively demand the straight line,” Wagner’s streets were intended to lead to every destination in the shortest possible time. Even as Wagner ridiculed in his report the “painterly effects” of urban design propagated by Sitte, the architectonics of the plan itself in fact combined the two concepts of extension planning – engineering and biological systems – with a volumetric understanding of the city found within the latter theorist’s City Planning According to Artistic Principles. Later it will become clear that this is only one of several ways in which the typical dichotomy of Sitte/Wagner fails to capture the complexity of their urban visions, especially their common interest in efficient circulation as a condition of modern life.

Despite the contrast with his own work, Josef Stübben in Deutsche Bauzeitung wrote that Wagner “shares with Semper the conviction that architecture is called upon and is capable of dressing the recognized modern needs of the present in the appropriate aesthetic form.” Yet neither Wagner nor Stübben’s plans were adopted, and instead a new bureau of development was created within the city building office in 1894. This office drew on the winning projects, as well as the concept of a three-dimensional building fabric probably rooted in Sitte’s theories, to prepare a relatively workable plan that anticipated Vienna doubling in size by 1950.

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46 “Erlauterungs-Bericht” for the master plan: Graf, Otto Wagner, 1:87-121. Translated in Mallgrave, 26.
an over-scaled, massively expanding city permeated the plans of even the most bureaucratic sectors of the planning community.

In America, meanwhile, the image of metropolitan expansion that became such a potent concept for planners by the 1920s, stemmed not from wholesale urban intervention as in Berlin and Vienna, but from a rather different set of visionary frameworks and a broad movement for urban social reform that had emerged as early as the 1860s. In America, immigration from Europe and migration within the United States from rural farms to cities contributed to the massive population growth in places like New York, where infrastructure, utility services, and housing development could not keep pace. Living conditions were poor, and social reformers began to view urban density as a key part of the problem. Tenement housing was one arena that social reformers tackled with some success by the turn of the century, and the publication of books like Jacob Riis’ *How the Other Half Lives* in 1890 led to a number of legislative ordinances meant to regulate tenement design. Many other campaigns for parks, playgrounds and other solutions for urban congestion were implemented throughout American cities like Boston, New York, Chicago, Kansas City, and many others. An American city planning movement as such would not fully cohere separate from these piecemeal social reform efforts until the publication of the far more comprehensive urban designs by planners like Daniel Burnham and the first national conferences and exhibitions on city planning that took place in 1909 and 1910 in New York City, Washington, DC and Rochester. Yet the broad push to improve urban life for residents of America’s largest cities at the turn of the century was a key underlying factor to the design and reception of Saarinen’s, Neutra’s, and Wright’s respective

52 Scott, *American City Planning*, 1-46 has a broad overview of reform movements in a range of American cities.
plans a few decades later, however much these aspects were somewhat deemphasized by all
three architects in favor of a technological, futuristic focus on high-speed automobile
transportation to create an efficient, decentralized American city.

The traces of “the visionary” in America that would most inform Saarinen, Neutra and
Wright in their plans included nineteenth-century utopian social reform literature, the 1893 and
1904 World’s Fairs, the striking advances in transportation technology, and most significantly,
the rapid popularization of the automobile after World War I. To varying degrees, these
American elements all had a clear impact on the three architects, and on the reception their
projects received in the architectural press in the 1920s and 1930s.

The utopian and progressive social reform literature of the late nineteenth century
affected Frank Lloyd Wright in particular. Although there have been many studies of utopian
cities and communities, their focus has primarily been on their progressive social and economic
values rather than their relation to the history of technology or city planning. This visionary
tendency developed in literature and occasionally in real communities circulated widely within
popular culture well into the twentieth century, and can be seen in several specific examples of
futuristic communications networks or transportation methods. For Wright, Henry George’s
Progress and Poverty (1879), which advocated Jeffersonian-style democracy based on a single
tax, and Edward Bellamy’s Looking Backward (1887), a utopian novel about the future city,
were likely influential. George discussed an ideal society that was not simply theoretical, but

53 The following sources have been helpful in this analysis of what I am calling “visionary urbanism”: Ruth Eaton,
Planning & Building in Modern Times (New York: F.A. Praeger, 1962); Christian W. Thomsen, Visionary
55 Henry George, Progress and Poverty: An inquiry into the cause of industrial depressions and of increase of want
with increase of wealth…the remedy, 1879 (New York: Robert Schalkenbach Foundation, 1955); Edward Bellamy,
influence of George and Bellamy, and other utopian thinkers, see Frank E. Manuel and Fritz Manuel, Utopian
actually based on the California of his youth, a state of small farmers, independent business owners, and diffused population not threatened by the “dangers of progress.”  

George saw in the early society of California the absence of fixed social classes, freely available land, and relative equality in the distribution of wealth as the hallmarks of American democracy.  

Edward Bellamy in his 1888 bestseller *Looking Backward* advocated similar values for America from the view of Boston in the year 2000, but focused on the economic and industrial innovations that would allow for improved labor conditions and a more prosperous democratic society. Bellamy did not discuss automobiles specifically, yet he created a decentralized city built around new technologies like telephones and pneumatic tubes for package delivery that would eliminate the need for a traditional downtown. Bellamy’s novel, and its increasing popularity among architects and planners around the turn of the century, brought attention to other, lesser-known utopias that similarly explored fantastical modes of transportation and infrastructure. Mary Griffith’s *Three Hundred Years Hence* of 1836 had predicted new forms of mechanized vehicles, while Bellamy’s contemporaries Chauncey Thomas and Sylvester Baxter also integrated cars, multi-level streets, and separate pedestrian walkways into their visions of the future.  

As John L. Thomas has argued, the popularity of these utopian proposals reflected a widespread feeling of shock towards the social problems associated with industrialization.

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Thomas, 139-140.  


John L. Thomas, 136.
These books provided an alternative model of America’s development that contained both an assurance of traditional values and a view towards new possibilities. Chapter 5 will argue in more detail that Wright’s Broadacre City should be fully embedded into this history of futuristic city planning, and not solely viewed in relation to the rural, back-to-the-land, Jeffersonian tradition which has marked too many studies of that project.

Another visionary tendency that ran through the late nineteenth century and helped create an appetite for big ideas regarding technology and city planning was the world’s fair or international exposition. Fairs in London, Philadelphia, and Paris had been significant sites for technological innovation earlier in the nineteenth century. But it was the World Columbian Exposition of 1893 in Chicago that played an outsize role in the history of visionary American urban planning. The architectural and urban planning scholarship on the 1893 Columbian Exposition is extensive, and ranges from biographies of its principal organizer Daniel Burnham, studies of its international influence on architecture, and explanations of its impact on the Neoclassical, Haussmann-style American planning movement known as City Beautiful.\(^1\) On a local level, the fair’s design and siting were early signals of a dramatic shift in Chicago’s transportation infrastructure that changed the face of the lakefront. These extreme alterations to the geography of the city, which included a landfill process to create public parks along the lake, new rail lines and rail electrification, and eventually a regional freeway system, were still in progress when Eliel Saarinen entered the Tribune Tower competition in 1922, and subsequently designed his own urban scheme for lakefront Chicago.

In the late nineteenth century, Chicago’s lakefront was cluttered with an assortment of docks, rail yards, and small industry. Miles of working-class housing, unpaved streets, factories and packing plants stretched out to the south and west of the central Loop. The city was congested and dirty, but also in the midst of a great transformation based around efficient new factory production and business practice, skyscraper building, and a general increase in the speed of life.\textsuperscript{62} According to Arnold Lewis, many European visitors to Chicago in the late nineteenth century saw the increasingly hectic pace of life in the Loop area in the context of contemporary theories of neurasthenia, as described by the German philosopher Max Nordau. In the 1890s, Nordau described the ill effects of modern cities on human life, which he argued had resulted in higher rates of crime, mental illness, and suicide.\textsuperscript{63} The 1893 Columbia Exposition was, in some sense, an attempt to regulate not only the form of lakefront Chicago, but also the social aspects of urban life. Physically, the fairground was organized into groups of buildings, the main section of which was called the “White City” for the white-stucco Beaux-Arts design of the monumental exhibition halls set within an integrated whole of broad boulevards, landscaped plazas, and water features.\textsuperscript{64} Daniel Burnham and his colleague Edward H. Bennett would extend many of these interventions into the Chicago urban landscape in their 1909 plan (Figure 9), whose influence spread widely around the world. In Chicago itself, it was soon realized by some that the spectacular undertaking in Jackson Park, and the elevation of subway lines that carried 23 million passengers to the fair, were indicative of a forward-looking spirit of Chicagoans

themselves. This claim gives an interesting window into how those involved in the decades-long work of remaking lakefront Chicago perceived their project.

Large-scale shifts in the technologies of communications, business, and transportation were developed around the turn of the twentieth century that also contributed to the idea of visionary planning. The telecommunications innovations theorized by Bellamy became a reality by the late 1890s, and were an important factor, along with electric rail and the automobile, in first encouraging a concept of urban decentralization around the turn of the century. Historians of technology such as Thomas P. Hughes have discussed the impact of electrification of transportation and communication networks on American and European cities. Electrification in large part underpinned the advances in “scientific management,” or Taylorism, and made possible the growth of modern manufacturing, new types of office spaces, and ultimately the mass production assembly line techniques popularized by Ford Motor Company in the first decade of the twentieth century.

The most significant innovation for the purposes of this study was the development of the automobile. This topic has been studied extensively within the field of urban planning history; however, most studies have been concerned with political or sociological issues, rather than with the implications of the technological aspects for architecture and urban design with which this dissertation is concerned. All three architects were impacted by the popularization of the car generally, and by its specific effects on the urban landscapes of Detroit, Chicago and Los Angeles, as will be shown in later chapters. The impulse towards high-speed decentralization via

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new forms of infrastructure displayed in Saarinen, Neutra and Wright’s projects were rooted in
tendencies actually occurring in these cities throughout the 1920s.

The impact of the car on American culture was significant from the very beginning of the
twentieth century. There are many studies that trace the invention and development of cars from
a manufacturing and technology standpoint, but it was their popularization among the American
public, planners, and architects that will be emphasized throughout this dissertation.67 In
comparison to Europe, the diffusion of cars into American society was extremely pervasive for a
number of reasons, including the general standardization and mechanization of industrial
processes during the nineteenth century, an abundance of natural resources resulting in low costs,
and higher per capita incomes.68 By the early twentieth century, the reception of automobiles was
further accelerated by increasingly cheaper production methods and better roads, and marked by
a decided optimism and faith in the car to solve the congestion and pollution problems caused by
older forms of transport.69 After 1919 the General Motors Acceptance Corporation was founded
and it became normal to finance automobile purchases using consumer credit; car ownership
multiplied, reaching over 26.7 million vehicles registered and production totaling around 5

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million cars per year in from 1927 to 1929.\textsuperscript{70} James J. Flink pointed out that most observers at the turn of the century assumed that traffic would become more efficient because cars were both more flexible than fixed-rail streetcars, and took up less space than horse-drawn carriages.\textsuperscript{71} Meanwhile, the business community viewed the automobile as a means of improving material progress and prosperity, despite the uncertainty it raised about the functioning of downtown commercial districts.\textsuperscript{72} Businesses and the public generally accepted the automobile and its associated changes with few questions.

Two major problems did arise with the rise of the automobile as the dominant form of transportation, parking and road building. The sheer number of cars entering center cities created even more congestion and wear on existing roads. Saarinen’s, Neutra’s, and Wright’s urban design projects all contain futuristic, virtually unbuildable solutions, but perhaps paradoxically, these solutions were fully embedded in and responsive to the contemporary infrastructure issues evident in American cities like Chicago and Los Angeles. The storage of cars became a significant architectural design problem for central business districts, as described by contemporary commentator Harold F. Blanchard, and played a role in both Saarinen’s plans for lakefront Chicago and Detroit, and Wright’s Broadacre City.\textsuperscript{73}

Blanchard’s article on parking garage design is important because it highlighted the parking garage as a typology separate from office or factory buildings, and illustrated several built examples that may have served as models for designs found in Saarinen and Wright’s projects (Figure 10). The article gives a fascinating picture of how cars actually used garages in

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\textsuperscript{70} National Automobile Chamber of Commerce, \textit{Facts and Figures of the Automobile Industry} (annual editions, 1925-1930). Cited in Flink, \textit{America Adopts the Automobile}, 460-461.
\textsuperscript{71} Flink, America Adopts the Automobile, 455-458; McShane, Along the Asphalt Path, 120-122.
\textsuperscript{73} Harold F. Blanchard, “Ramp Design in Public Garages,” \textit{Architectural Forum} 35 (Nov. 1921): 169-175.
\end{flushleft}
this relatively early period of their history, with design based primarily on ramp steepness and size of a car’s turning radius, as well as cost effectiveness. Sloping-floor garages, for example, were more functional but also more expensive because of the special steelwork and concrete forms required throughout the building.\textsuperscript{74} The goal of all garages was to maximize space and efficiency of traffic movement, but this was accomplished in a variety of ways. Blanchard discussed the Commodore-Biltmore Garage in New York, one of the first to contain a uniform floor layout and a dual ramp system, important innovations that would allow for a larger number of cars and quicker load-in and load-out processes. The LaSalle Street Garage in Chicago, on the other hand, contained both a ramp and elevator system depending on whether heavy or light traffic was entering or exiting at different times of the day.\textsuperscript{75} Blanchard also illustrated a concentric ramp design in the Eliot Street garage in Boston, an especially important precedent because of its intriguing formal relationship to one of Wright’s experiments in automobile-oriented architectural design, the Gordon Strong Automobile Objective of 1924-1925. This lookout point made up of a circular ramp appeared again in the model for Broadacre City. In the Eliot Street example, the garage’s concentric ramp system allowed for continuous motion and no conflict in the stream of traffic going up and down, though the ramps themselves took up a significant amount of space.\textsuperscript{76} Given Wright’s prolific reading of city planning journals throughout the 1920s, it seems likely that he may have been aware of this concentric garage in designing the 1925 Automobile Objective project.

From the earliest part of the twentieth century, congestion was rampant in the central business districts of large cities like Chicago and New York, yet despite myriad transportation infrastructure projects like subways and bridges, to a certain extent these innovations just

\textsuperscript{74} Blanchard, 174.
\textsuperscript{75} Ibid., 171-173.
\textsuperscript{76} Ibid., 172.
encouraged more people to come downtown.\textsuperscript{77} It was for this reason that ideas about reducing downtown population density, especially via automobiles, came to the forefront among urban planners.\textsuperscript{78} Road improvements and road construction had already become a significant issue as early as the 1880s, though, with Frederick Law Olmsted’s designs for the Boston parkway system. In 1881 Olmsted developed roads that separated through traffic from local traffic and used the links between different parts of his system as parks themselves, creating an organic whole he called the “Emerald Necklace.”\textsuperscript{79}

In the early twentieth century, as cars entered public life to a much greater degree than ever before, city governments began to make drastic changes to urban street systems, including road paving and widening. As Clay McShane has argued, these improvements played a large role in facilitating the increased speed and efficiency of automobile transportation.\textsuperscript{80} In central cities, however, these improvements also tended to create further congestion, an issue discussed during the 1910s by the New York Times after traffic increased with the widening of Fifth Avenue.\textsuperscript{81} These technological improvements to roads would ultimately allow for the high-speed thoroughfares of the 1920s. The development of highways in America has been covered

\textsuperscript{77} Roy Lubove, \textit{Community Planning in the 1920s} (Pittsburgh, 1963), 107-127.
\textsuperscript{81} \textit{New York Times}, March 27, 1913, cited in McShane, \textit{Along the Asphalt Path}, 217.
extensively by urban historians, but less so in relation to how architects have perceived cities, a topic that will be explored later in this dissertation.\(^{82}\)

The architectural and urban design responses to the car examined in the following chapters were to a great extent tied to the city planning profession’s reaction to the automobile’s popularization, although there are some key departures that will be mentioned. In general, planners sought to enable decentralization through the utilization of cars. John Nolen, for example, wrote, “The future city will be spread out…It will be regional, it will be the natural product of the automobile, the good road, electricity, the telephone, and the radio, combined with the growing desire to live a more natural, biological life under pleasanter and more natural conditions.”\(^ {83}\) Although there was some criticism raised regarding cars and planning, such as Werner Hegemann’s comment at the 1915 National Conference on City Planning that cars reinforced class divisions between the wealthy and the poor, most city planners assumed a rather laissez-faire attitude to these issues.\(^ {84}\)

By the 1920s, urban planners were interested primarily in solving urban problems via bureaucratic solutions. Mark S. Foster and Mel Scott contend that for most planners, issues of practicality trumped visionary ideas, and in general, planners did not perceive just how dominant the car would become in relation to public transportation.\(^ {85}\) This was evident, for example, at the 1922 and 1923 national planning conferences, when the well-known planners Daniel Turner and George A. Damon both emphasized the significance of street railways in easing congested areas.

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\(^{82}\) T. Lewis, *Divided Highways* and Foster, *From Streetcar to Superhighway* are good overviews of the role highways have played in American life. See also, Barrett, *The Automobile and Urban Transit*, 142-150.

\(^{83}\) Quoted in Foster, *From Streetcar to Superhighway*, 143; see also 138-145; and Foster, “City Planners and Urban Transportation: The American Response, 1900-1940,” *Journal of Urban History* 5 (May 1979): 365-396.


\(^{85}\) Foster, “City Planners,” 377; Scott, *American City Planning*, 251-252.
of the urban plan.\textsuperscript{86} On the other hand, Robert Moses took advantage of the bureaucratic system in his projects for parkways on Long Island in the 1920s and throughout New York City over the next several decades.\textsuperscript{87} As the head of the Long Island State Park Commission, Moses guided the development of Jones Beach State Park in 1923, and in 1925 designed the Southern State Parkway to improve access to this and other Long Island parks from New York City. Robert Caro described Moses as a forceful advocate for automobile travel, even if, as Caro saw it, Moses neglected mass transit and manipulated the legislative process in order to accomplish his goals.\textsuperscript{88} Kenneth Frampton has argued that two underlying themes governed Moses’ fascination with urban highway infrastructure – first, the idea of “universalizing” the concept of the garden city, and second, to replace rail transportation with the “egalitarian destiny” of the private automobile.\textsuperscript{89} Although Moses was not concerned with developing comprehensive urban planning schemes such as the ones described in this dissertation, his large-scale interventions into the urban landscape already evident in the 1920s reveal important similarities to Frank Lloyd Wright’s highway plans in Broadacre City.

Visionary planning schemes that did exist were thus principally left to architects and others engaged with but outside the planning profession. A variety of car-centered plans were proposed during the 1910s, including elevated highways that were free of pedestrians and other slow-moving forms of transport. One such plan published in the New York Times would have

\textsuperscript{86} Daniel Turner, “The Fundamentals of Transit Planning for Cities,” \textit{Proceedings of the 14\textsuperscript{th} National Conference on City Planning} (Springfield, MA, June 5-7, 1922), 104; George A. Damon, “Inter and Intra Urban Transit and Traffic as a Regional Planning Problem,” \textit{Proceedings of the 15\textsuperscript{th} National Conference on City Planning} (Baltimore, April 30, May 1-2, 1923), 47.

\textsuperscript{87} Caro, \textit{The Power Broker}. For more on New York State parkways, see: Jay Downer, “Parkways and Superhighways,” \textit{American Society for Municipal Improvements} 36 (1930): 49-52; Gilmore Clark, “Our Highway Problem,” \textit{American Magazine of Art} 25 (November, 1932), 285-290; McShane, \textit{Along the Asphalt Path}, 222.

\textsuperscript{88} See Caro, \textit{The Power Broker}, 152-156 for a description of Moses’ goals for improving automobile transportation on Long Island.

run the length of Manhattan through the second story of existing buildings, another would have created a 100-foot wide avenue cutting through the block between Fifth and Sixth Avenues in midtown, while the New York Auto Dealers Association proposed pedestrian overpasses as a solution to automobile congestion already obvious on Manhattan’s streets. In contrast to futuristic ideas like this, the response of municipal engineers to the demands of automobile traffic was primarily via ad hoc, organic planning procedures, focused more on incremental changes like repaving, street widening, and bridge construction, than on visions of the distant future. Indeed, Lewis Mumford would write in 1927 that “the multiple-decked highways and aerial perspectives that lazy imaginations conjure up” would only serve to increase the congestion typical of central business districts. Projects like Saarinen’s for Chicago and Detroit, however, with impossibly large parking garages and high-speed freeways, were actually far more pragmatic than they are usually given credit for, in fact taking real traffic problems and statistically-driven population projections into account.

In the 1930s, highway building and government funding of roads was seen as a way out of the Great Depression, which may have helped promote cars even further over street railways and other forms of public transit. However, by the early 1930s, some urban planners like Harland Bartholomew and Miller McClintock had already turned away from decentralization as a wholesale solution; they began to see it as generally problematic for the central urban core that

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91 See for example, George Norton, “The Engineer and City Planning,” *American Society of Civil Engineers Transactions* 86 (1923), 1333-1337.


remained. In 1932, Harland Bartholomew, who had once been a proponent of decentralization, argued that America needed “a real effort to prevent [the] endless spread of population with its concomitant disintegration of the larger central areas of cities.”

This perhaps reveals again the divergence of architects, designing fantasy projects for decentralized cities, from urban planners dealing with the bureaucratic realities. However engaged in 1920s urbanism Frank Lloyd Wright’s *Broadacre City* was, it was already behind the current in 1932-1935.

As many scholars have observed, the car’s rapid rise to dominance over mass transportation should be firmly situated within a larger American tradition, the association of mobility, individuality, and decentralization with democratic values. These values are also connected with futuristic, visionary conceptions of the American city. As early as 1901, in fact, the urban reformer Frank Parsons imagined that in the future, “no respectable family will be without its automobile or flying machine, and motor bicycles will be thick as mosquitoes on the Jersey coast. The country will be covered with a network of magnificent highways.” There is extensive literature on the association of mobility and American values of democracy and individuality, especially as it relates to suburbanization. Kenneth Jackson in particular wrote at

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95 Flink, America Adopts the Automobile, 456.


length on suburbanization in his book *The Crabgrass Frontier*, arguing convincingly that this tendency to spread residential development outward actually predates the rise of the automobile.\textsuperscript{98} Jackson argued that rapid increases in urban population resulted in a strain on city services that helped create a desire on the part of many people to move into less-congested, outlying areas. Additionally, land availability, construction technology that made housing cheaper, the relative wealth of the population, and government subsidies all contributed to making single-family housing the dominant housing type to which Americans aspired.\textsuperscript{99} Cheap housing and new transportation and telecommunications technology made this dream possible.

Robert S. Lynd and Helen M. Lynd found evidence of this by the late 1920s, noting the symbolic value of the car in their classic studies of “Middletown.”\textsuperscript{100} They wrote that for average Americans, automobiles served as “their great symbol of advancement…Car ownership stands to them for a large share of the ‘American dream’; they cling to it as they cling to self-respect.”\textsuperscript{101} From the vantage point of the 1960s and 1970s, historians and critics took a more dramatic and often negative view of the impact of cars on American urban life. Lewis Mumford wrote in 1964 that the car “appeared as a compensatory device for enlarging an ego which had been shrunken by our very success in mechanization,”\textsuperscript{102} while James J. Flink went even further and claimed, “motoring [itself] had a hedonistic appeal rooted in basic human drives.”\textsuperscript{103} Both of these comments, however biased, maintained the view of geographical mobility and individuality as core values of American culture. The car did not create suburbanization; rather, its rapid

\textsuperscript{102} Mumford, The Highway and the City, 244-245.
\textsuperscript{103} Flink, *America Adopts the Automobile*, 100-3, 107-112.
adoption over the course of the early twentieth century simply reflected a new degree of a longer tradition of American expansion. The chapters that follow will show how the visionary projects developed by Saarinen, Neutra, and Wright in the interwar period were highly engaged with these wholly American ideas about car ownership, even as they retained links to the planning traditions of Austria and Germany.
CHAPTER 1

The Development of Urban Planning in Berlin and Vienna, 1890-1914

The history of urban planning as a discrete profession in Central Europe arose in the second half of the nineteenth century in response to dramatic industrialization and subsequent population explosion throughout the region. Although many different cities in Germany and Austria began to strain against the shackles of the medieval city form, the capital cities of Berlin and Vienna became especially rich sites for architectural and urban design experimentation geared toward modernization of the metropolitan core. The exact manifestations of this experimentation at the end of the nineteenth century ranged widely in both cities, consisting of highly regulated extension plans, technological innovations in public transportation, international competitions and exhibitions, and endless theorizing on how cities should operate.

In Berlin, for example, following James Hobrecht’s plan of 1862, there were attempts to make transit circulation more efficient and a series of texts on the benefits of decentralization, while Vienna was more overtly physically transformed, first with the continued development of the Ringstrasse and later by the new rail system (Stadtbahn). Throughout this period, architects and planners wrote extensively on contemporary global cities, they proposed solutions, and they explored the nature of modernity itself. By 1910, several international competitions and publications were held that highlighted models for visionary urbanism characterized by modern high-speed infrastructure and unlimited growth; these models would prove appropriate for machine-age America.

Although a large group of German and Austrian architects, engineers, and planners played a role in the debates over what modern cities should look like and how they should function, in this chapter the discussion will be restricted to those individuals and events with an
outsize contribution to the visionary, forward-thinking urbanism that emerged around the turn of the twentieth century, and its subsequent internationalization in the interwar years. This diverse and often divergent group includes, among others, Camillo Sitte, Josef Stübben, Adolf Loos, Karl Scheffler, and especially Otto Wagner. Despite their differences on a range of issues, it was their combined belief in efficient urban circulation and in the role of comprehensive planning to meet both contemporary and future needs of the ever-expanding metropolis, which deeply influenced Eliel Saarinen’s projects for Chicago and Detroit, Richard Neutra’s Rush City Reformed, and Frank Lloyd Wright’s Broadacre City.

The introduction began by examining the nineteenth-century Central European city and some of the ways urban planning as a field responded to the effects of industrialization, and it explored how cities like Vienna and Berlin became associated not with history but with modernity. This chapter will analyze the contemporary discourses out of which the concept of “visionary planning” arose in the first place, highlighting the key plans, images and competition projects that illustrate this turn toward the future. It will be structured around the two cities of Vienna and Berlin, which, in their excessive modernization and extraordinarily quick population growth in the second half of the nineteenth century, played significant roles in stimulating the widespread, visionary image of the modern metropolis that developed just prior to World War I.

The debates engendered by the rapid industrialization of Vienna and Berlin, and by the attempts to mitigate its effects on the central city, were illustrated in the professional tools this new scientific field created for theorizing and publicizing its ideas. These tools – the treatise or handbook, the journal, and the public competition – became central to the project of modern planners around the turn of the twentieth century. Before discussing Central European planning
projects and theory as they relate to the exchanges of 1910, it is critical to understand the texts and competitions that form its foundation. In Germany, the engineer Reinhard Baumeister’s 1876 text *Stadt-Erweiterungen in technischer, baupolizeilicher und wirtschaftlicher Beziehung* (*City Extensions in their Technical, Regulatory, and Economic Aspects*) was a manifesto on the more practical aspects of planning like technology, law, and economy; it emphasized the concept of extending cities horizontally as a means of accommodating population growth.¹ Josef Stübben’s 1890 *Der Städtebau* (*City Planning*) integrated the planning of housing, public buildings, and circulation into a comprehensive metropolitan whole.² In Austria, Camillo Sitte’s *Der Städtebau nach seinen künstlerischen Grundsätzen* (*City Planning According to Artistic Principles*) of 1889 was far more concerned with aesthetics and urban design of public spaces, although he also found efficient circulation to be a key element of the modern city.³

Journals specifically dedicated to urban planning also began around the turn of the twentieth century, most significantly *Der Städtebau*, which was published by Camillo Sitte and Theodor Goecke in Berlin in January 1904 and considered itself the first planning publication for a general audience.⁴ Its founders were partly motivated by the hope that this journal would ensure the primacy of “artistic” tendencies in urban planning, rather than the more bureaucratic, technical elements. In the preface to the first issue, Sitte and Goecke declared, “Every Science has always tried to establish absolute clarity with regard to the aims of the entire spectrum of its activities, to reveal the historical development of its field, to assemble everything which will aid

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² Josef Stübben, *Der Städtebau* (Darmstadt: Bergstrasser, 1890).


in the promotion of its further development and to establish appropriate boundaries with related disciplines.”⁵ Sitte and Goecke considered planning as a field to be both an art and a science separate from other areas of engineering or architecture, and drew contributions for the journal from a wide variety of practitioners.

These treatises and journals were not isolationist in their character, and they often responded both directly and obliquely to planning developments, as well as literature and cultural theory, from elsewhere in Europe and America. The planners of Central Europe were most certainly aware of Baron Haussmann’s interventions in Paris, of the British Garden City practitioners, and of America’s City Beautiful movement.⁶ The Spanish journal _La Ciudad Lineal_ began publication in Madrid in 1897, and _The Garden City_ and _The Town Planning Review_ appeared in London in 1904 and 1910, all with a somewhat international readership. Additionally, intellectual debates about the very nature of the modern city, and especially its psychological effects, had gained prominence since the late nineteenth century through the writings of Charles Baudelaire, Georg Simmel and August Endell.⁷

Finally, 1910 represented a high water mark of international planning competitions and exhibitions, a feature of Central European planning that was rooted in nineteenth-century practice. As Anthony Sutcliffe and Brian Ladd have noted, Austria and Germany were uniquely positioned to translate their practice of holding public competitions for major public buildings to the purposes of city planning.⁸ Vienna, for example, held a series of competitions in 1860s and 1870s for the development of monumental buildings for the Ringstrasse circling the central city,

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while in Germany, Cologne used the competition system to develop an extension plan in 1881. Starting in the 1890s, certain influential competitions, including the 1893 Competition for a Plan for Vienna and the 1908 Competition for Greater Berlin, began to emphasize a distinctly more futuristic and technologically oriented tone. Although many of the entries in these latter competitions were quite visionary, they should be seen as having emerged from long-standing practices.

The increasingly internationalized field of urban planning was far from unified in its attitude towards modern cities. The economist and sociologist Werner Sombart, for example, wrote about the “material culture of modernity,” which he saw as a key feature of modern capitalism. He explicitly connected modernity with the metropolis, but saw in both a lack of genuine culture, a feature he associated with Americanism. In a comparison between Berlin and Vienna, however, Sombart viewed this modern Amerikanismus as a marker of Berlin’s superiority to the Austrian city. The term Amerikanismus held undesirable connotations of rapid urban expansion and a degenerating effect on national culture, and was correlated with modern Berlin in particular. Although few architects (aside from Behrens, Berlage, Wagner, and Loos) actually spent time in America prior to World War I, those who did typically limited themselves either to New York City or to the world’s fairs, and brought back mostly negative viewpoints about the aesthetic, mental, and cultural life of urban America. These views tended to reinforce

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9 Ladd, Urban Planning and Civic Order in Germany, 97-99.
11 Lenger, Werner Sombart, 165. For a study of the history of the image of America in German cultural life, see the catalog by Becke Sell Tower with an essay by John Czaplicka, Envisioning America (Cambridge, MA: Busch-Reisinger Museum, Harvard University, 1990).
Central European critics’ concerns about the adverse physical and psychological effects produced by their own modern cities.

In both Berlin and Vienna in the 1890s, the development of new technologies indelibly changed the human experience of the city, through new tools of infrastructure and communication. Berlin in particular became known as an “elektropolis,” for the way in which electrification made possible economic growth. The Siemens Company built a model electric railroad in Berlin in 1879 for the International Trades Exposition, and an intercity railway began service in 1882, but it was only after the municipal takeover of the privately held streetcar franchises in the 1890s that a true metropolitan transportation system became possible. By the turn of the century, streetcars were electrified throughout Germany, and the first section of an underground subway opened in 1901, connecting Charlottenburg with Berlin’s central business district. These radical changes in transportation methods led to fundamentally different relationships between home and work, and between individuals and the city as a whole. Commutes were shorter, cultural and social life was made more accessible, and the middle classes, with their increasing demands for urban space, became more willing to live in peripheral

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*Cited Sources*


Anthony Sutcliffe has argued that the middle classes in particular helped promote the extremely rapid expansion of German cities in the 1890s, with their increasing demands for urban space and a new willingness to live in outlying areas: Sutcliffe, “Germany: From Town Extensions to Comprehensive Urban Planning,” 28.
areas. The sheer pace of the improvements to technology and transportation, due in part to the transfer of engineering knowledge from America, clearly had an impact on architects and planners looking towards the future.\textsuperscript{17} As will be discussed later, the more imaginative strands of Central European urbanism that appeared around 1910-1911 in the Greater Berlin Competition, the International Planning Exhibition, and published by Otto Wagner, seem to speak directly to the dramatic possibilities of high-speed transportation and communication networks for the future metropolis.

Berlin’s transportation and technological innovations were put on display in the German Municipal Exhibition, which ran from May through September of 1903 in Dresden. It was just prior to this occasion that Georg Simmel delivered his lecture “The Metropolis and Mental Life,” regarding the negative psychological experience of the individual in the modern city, yet the General Municipal Exhibition took a far more optimistic view of urbanism.\textsuperscript{18} The exhibition highlighted the most advanced lighting equipment, street construction methods, and underground utilities, and prominently displayed maps and plans illustrating the extension of various German cities.\textsuperscript{19} This was a celebratory exhibition of modern planning that combined both aesthetic and technical concerns, and should therefore be seen as a counter to the predominantly anti-urban ideas of German theorists like Simmel, and the later garden-city planners. In this way, the exhibition can also be seen as a predecessor to the exhibitions held in Berlin and Düsseldorf from 1910-1912.

\textsuperscript{17} For the American context, see Carl Condit, \textit{The Port of New York}, vol. 1 (Chicago: University of Chicago Press, 1980-1981). For the Berlin/NYC exchanges with regard to engineering, see Kleihues and Rathgeber, eds., \textit{Berlin/New York: Like and Unlike.}


Technology and transportation similarly played a significant role in Vienna during the 1890s. Along with the Ringstrasse development of the 1860s, and the Competition for a General Development Plan of Vienna in 1893 already mentioned, it was the building of the Stadtbahn (municipal railway) beginning in the 1890s that would prove most formative for the sense of dramatic change manifested in the high-speed infrastructure and unlimited-growth models taken up in an explicitly visionary manner around 1910. Otto Wagner, who became a professor at the Academy of Fine Arts in 1894, had included in his winning proposal for the general development plan a number of perspectives integrating a new metropolitan rail system into the existing cityscape (Figure 11). On the strength of these illustrations, Wagner was subsequently awarded the commission to design the stations and related infrastructure. From 1894 to 1908, Wagner designed more than forty rail stations and was also involved in the planning and placement of viaducts, tunnels and bridges (Figures 12 and 13). He wanted to create stations that could serve as focal points of circulation throughout the city.

R.E. Petermann wrote in 1908 about the significance of the metropolitan railway system and other highly advanced technology to the modern experience of Vienna. It allowed for distinct districts to arise in peripheral areas of the city, which were made easily accessible from the central city not only via the new rail lines but also through other highly advanced transportation and communication technology that developed during the 1890s, including a telephone network extension, the electrification of tramways, and in 1899, the first exhibition of

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22 R. E. Petermann, Wien im Zeitalter Kaiser Franz Josephs I (Vienna: R. Lechner, 1908), 111. See also Frisby, “The City Designed,” in Cityscapes of Modernity, 187, on the acceleration of circulation within the city.
automobiles. Just as in Berlin, all of these networks allowed for an acceleration in the speed of communication and transport within the city. Vienna could decentralize yet maintain a common urban identity carried by the lines of the railway extending outward from the central core. Wagner’s railway system helped make over the eclectic nineteenth century city into an endlessly expanding metropolis.

Several of Wagner’s Stadtbahn stations, such as the Wahringerstrasse, were situated at complicated transportation convergence points; in each case the architect adapted the station and infrastructure design to its site and integrated old and new modes (i.e. bus, tram and rail) into a multi-layered high-speed circulation hub. Wagner’s design also contained infrastructure regulating the Wien River and Danube Canal along which two of the rail lines were situated. For these waterways Wagner designed a lock and weir at Nussdorf that eliminated the risk of flooding and allowed for the canal to be used as a harbor. In his discussion of the system, Harry Mallgrave finds the Nussdorf lock’s engineering and decorative aspects fairly conventional in relation to contemporary examples like the Helsinki-Saint Petersburg railway structures, drawings of which were recently published in the Allgemeine Bauzeitung in 1889. The Stadtbahn stations themselves have also been closely analyzed; Eve Blau, for example, argues that Wagner’s monumental, classicizing station buildings link both “city and railway, [and] mediate the passage from street to train [and…] from pedestrian to metropolitan pace and scale.” Each element thus reflects Wagner’s successful use of advanced infrastructure technology to develop a comprehensive, citywide system that indeed runs according to this

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23 Petermann, Wien.
“metropolitan pace and scale.” Both the 1893 plan and the Stadtbahn system attempted to accommodate enormous future growth through urban extension and high-speed infrastructure. Wagner would take up these ideas in a more cosmopolitan, if theoretical, way in the next decade; Saarinen, Neutra and Wright would do something similar in their American projects of the 1920s and 1930s.

Having introduced some of the physical and conceptual changes that occurred in the cities of Vienna and Berlin over the course of the nineteenth century through the mid-1890s that set the scene for the visionary planning exhibitions of around 1910-1911, the following section will examine the theories and texts developed in both cities from in 1889 through 1911 that advanced the early twentieth-century conception of the modern metropolis, and more specifically on the later projects for American cities. The often-competing and overlapping ideas of theorists, planners and architects in both Vienna and Berlin will be explored. The writings and projects by Camillo Sitte, Otto Wagner, and Adolf Loos in Vienna, and by A.E. Brinckmann, Karl Scheffler, and Peter Behrens in Germany, were especially important to the conceptualization of contemporary urbanism in Central Europe at the turn of the twentieth century; these ideas were as influential for younger local architects like Richard Neutra as they were for foreign visitors like Eliel Saarinen and Frank Lloyd Wright.

Although his early educational background was largely in the arts and crafts, Camillo Sitte resolved, much like Wagner would, to devote his career to the problem of the modern industrialized city. In his seminal 1889 text on city planning, Sitte argued for the idea that architects should design forms appropriate to modern life, and wanted to use older urban examples, like those of medieval Italy, to take up questions of beauty, of historical tradition, and especially of philosophies of perception. Sitte discussed Lucca, Vicenza, and the Piazza San
Marco in Venice for their public spaces intended to promote pleasant experiences. Despite the myriad scholarly claims for him holding solely a romantic, historicist, picturesque worldview, Sitte was very much interested in drawing these examples into the context of modern urban and traffic planning. Sitte drew circulation diagrams, and promoted the idea of “turbine plazas” with public spaces in the middle, enclosed by street facades like a public living room (Figures 14 and 15). These plazas, for the user, would help preserve psychological comfort and personal wellbeing amid the urban traffic. From these plazas, he wrote, “…the most favorable condition results, namely, that from any point within the plaza no more than one single view out of it is possible at a time, hence there is only a single interruption in the enclosure of the whole.”

Several scholarly interpretations of Sitte have developed in recent decades, most focusing on the theorist’s romantic, historicist tendencies. David Frisby studied Sitte in the context of a late nineteenth-century debate between Sitte and Josef Stübben over “straight or crooked streets.” Brian Ladd’s work has focused on the relationship of Sitte to contemporary discourses on aesthetics, and Sitte’s writings on how historical buildings and monuments fit into the cityscape. Ladd argues that in comparison to the priority given to traffic circulation and the needs of the entire city by a planner like Josef Stübben, for example, Sitte’s was a “backward-looking aesthetics… attacked after the turn of the century as an effort to negate the aesthetic and functional unity of big cities by designing them with forms borrowed from smaller, pre-industrial towns.”

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30 Ladd, Urban Planning and Civic Order in Germany, 111.
31 Stübben became a sought-after extension planner during the 1890s, designing plans for cities like Vienna, Brussels, Naples, Basel, Warsaw, Helsinki, Düsseldorf and Cologne: Stübben, Der Städtebau; Ladd, Urban Planning and Civic Order in Germany, 98-99. On Sitte, see Ladd, 137, and Barbara Miller Lane, “Changing Attitudes to Monumentality: An Interpretation of European Architecture and Urban Form,” in Growth and
historicism, other scholars have set him in opposition to Otto Wagner, usually as a way to argue for Wagner’s modernity – especially Wagner’s break with past modes of urban design. Indeed, Sitte criticized the straight streets and uniform architecture of Wagner’s 1893 submission to the competition for a General Development Plan of Vienna in a series of articles in *Neues Wiener Tagblatt* in 1893-1894. Setting himself in contrast to both Wagner and Josef Stübben, Sitte was interested less in the accommodation of metropolitan expansion through uniformity than in the individual aesthetic and psychological experience of a modern city.32

In his chapter on the theoretical responses to the Vienna Ringstrasse, Carl Schorske viewed Sitte’s and Wagner’s criticism of the 1860s-1870s developments as fundamentally opposed. In Schorske’s assessment, Sitte found the Ringstrasse to be a “betrayal of tradition” to the requirements of modern life, while Wagner critiqued the “masking of modernity and its functions behind the stylistic screens of history.”33 Like Frisby, Schorske described Sitte’s focus on squares, on “rehumaniz[ing] urban experience,” and on pedestrian rather than vehicular circulation, as nineteenth-century ideals against which Wagner’s planning theory reacted.34 Even scholars like Renate Banik Schweitzer, who did see similarities in their interests in designing “cityscapes” in comparison to more engineering-oriented German town planners, argued for a distinct contrast in what the two urbanists imagined the effects of their respective cityscapes would be. According to this model, Sitte was concerned with the city having an “uplifting educational effect,” while Wagner imagined rapid communication of information, advanced hygienic standards, and all the possibilities for consumption offered by urban concentration.35

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33 Schorske, *Fin De Siècle*, 62.
34 Ibid., 68-72, 97.
35 Renate Banik-Schweitzer, “Urban Visions, Plans, and Projects, 1890-1937,” in *Shaping the Great City: Modern*
a formal level too the planners have often been set as polar opposites, with Sitte’s planning characterized as romantic, organic, and historicist, and Wagner’s as vast, technologically-modern and linear.\textsuperscript{36}

In some more recent analyses, however, this tendency towards a sharp dichotomy has lessened, especially in the work of Eve Blau. Blau made a clearer argument about Sitte’s and Wagner’s shared conception of the city as a “cultural artifact” that should be considered as a “three-dimensional architectonic unity,” a unity that brings traditional ideas about urbanism into congruence with modern urban life.\textsuperscript{37} This common idea about city planning meeting modern needs of circulation and hygiene infuses both of their theoretical frameworks, even as their unique responses differ in their definitions of urban space: Sitte worked generally within the containable dimensions of existing cities while Wagner imagined an ever-expanding metropolis.

Despite their differences with regard to the scope of these urban centers, Sitte was in fact quite interested in issues relating to efficient circulation, sanitation, and comprehensive planning theory that is more typically associated with modernists like Wagner, and in fact the two were more similar than most historians have asserted. For this reason, Sitte should be seen as a critical background figure in Wagner’s shift towards visionary planning which was so influential on the later projects studied in this dissertation. Even though he entirely neglected the potential of rail or automobile traffic in his discussion, Sitte highlighted the problems of grade crossings typical of the grid plan that force carriage traffic to slow down. According to him, in “the narrow alleys of the old part of town, crowded with traffic as they are [the driver] can proceed quite nicely at a

\textsuperscript{36} Charles S. Maier, “City, Empire, and Imperial Aftermath: Contending Contexts for the Urban Vision,” in \textit{Shaping the Great City}, 28.

trot... [since] a street seldom crosses there, and even simple street openings are relatively infrequent.” For pedestrians also, “every hundred steps they have to leave the sidewalk in order to cross another street” and “miss the natural protection of uninterrupted house fronts.”

The idea of uniformity is thus embedded within Sitte’s theory of city planning, though with obviously different formal ramifications than in Wagner’s 1893 plan. The fact that he focuses on carriages and pedestrians doesn’t take away from the central idea about speed, about circulation, and about the city, however related to historical models, meeting the needs of contemporary life.

Another Viennese architect and theorist of urbanism around the turn of the twentieth century who played an integral yet often-overlooked role in the turn towards visionary, technologically-advanced conception of cities is Adolf Loos. Although he is more typically known as an architectural theorist, Loos made several contributions to the development of visionary planning in Central Europe and later in America. Although he never designed a visionary urban plan per se, his writings on the relationship of contemporary urban architecture to historical precedent and on his travels to America in the 1890s and the new building technologies he saw there, provided an intellectual basis for the early twentieth-century turn away from historical architectural forms, and gave Central European designers an idealized insider view of the high-technology, high-speed, expansive urban culture of American cities. The young architect Richard Neutra in the 1910s would be deeply affected by Loos’ writings about his experiences as a poor immigrant in the slums of New York, and thus hold greater esteem for cities of the American West.

Loos arrived in America in 1893, and for the next three years traveled between New York City, Chicago (at the same time as the World’s Fair), Philadelphia and St. Louis, working in a

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variety of menial jobs, including as a dishwasher and draftsman.\textsuperscript{40} To a large extent, the architect perceived America as an idealistic, democratic haven for futuristic technology and monumental urban architecture. In the view of Manfredo Tafuri, “America, seen and praised by Loos [in 1890], is a country with two faces: the one which shows a capacity to absorb and recreate on a gigantic scale the European ideology of Order, of Form outside time – the U.S. of the Columbian Exposition – and the one which complies impartially with the laws of everyday existence.”\textsuperscript{41} Neutra wrote also that Loos “saw that his Americans were, in general, of excellent human material, if one forgets about so-called education and culture and those things which are given an exaggerated importance in European countries. … All these people were acquiring an open-mindedness and turning, unburdened by any deformity of historical origin (that in the old world, with its ancient political geography, had poisoned their blood…) towards realism and freedom.”\textsuperscript{42} In his monograph on Loos, Benedetto Gravagnuolo stated that in these texts, the America Loos describes is one imagined through the framework of German theoretical categories, that is, “the desire to be American reveals itself as a desire for a return to the original clarity of German \textit{Kultur}.” For Loos, the positive aspect of American democracy was rooted in its extension of the process of “\textit{Kulturentwicklung} (becoming civilized) from the city to the country, that is, in the surmounting of old hierarchies and cultural barriers between different living conditions.”\textsuperscript{43} Ultimately though, even as Loos, in his essay “The Shoemakers” (1898) quoted a passage from Walt Whitman’s \textit{Leaves of Grass}, he remained a world apart in his

\textsuperscript{40} See accounts of his travel in an article from the column \textit{Wie Wir Leben (Etikettefragen)} in the review “Das andere” (1903), repr. In Adolf Loos, \textit{Sämtliche Schriften} (Vienna, 1962), 215-251, and in Neutra, “Ricordo di Loos, in \textit{Casabella}, 48, cited in Gravagnuolo, 42. The effect of Loos’ stay in Chicago and St. Louis was first stressed by Neutra in “Amerika,” in \textit{Neues Bauen in der Welt} (Vienna, 1930).


\textsuperscript{42} Neutra, \textit{Ricordo di Loos}, 46, cited in Gravagnuolo, 42.

\textsuperscript{43} Gravagnuolo, 44.
ideologies from the Jeffersonian-style democratic values that inflected the work of American architects like Louis Sullivan and Frank Lloyd Wright.\textsuperscript{44}

It should be obvious that a large part of Loos’ fascination with American life was centered on technology and its potential to develop a new style of urban architecture. Much of his late 1890s writing is concerned with a critique of historicist architecture, and in particular the rote copying of past forms that he found rife throughout Vienna. “Potemkin City” in 1898 concluded that recent architectural practice, and especially the \textit{Ringstrasse} development, had created the basis for incorrect readings of the city, the construction of a false text.\textsuperscript{45} Loos saw a dichotomy between the modern infrastructure of the \textit{Ringstrasse} and the historicist architecture lining it, writing, “Whenever I stroll along the Ring, it always seems to me as if a modern Potemkin had wanted to carry out his orders here, as if he had wanted to persuade somebody that in coming to Vienna he had been transported into a city of nothing but aristocrats.”\textsuperscript{46} He looked to America for examples of modern design principles, writing in 1908 that it was the American worker, the “man in overalls” rather than the artist, whose products were “in the style of their time.”\textsuperscript{47} In Loos’ view, American cities were characterized by an incredibly high rate of economic growth centered in the metropolis, which seemed to guarantee freedom from the nostalgia and cultural prejudices that had accumulated in old Europe. This growth also served to


\textsuperscript{46} Loos, “Potemkin City.”

break down the traditional divisions between rural and urban modes of life.\textsuperscript{48} Loos’ embrace of American technology as manifested in American cities reflects a view that technology could represent the possibilities of modernity. As Gravagnuolo put it, for Loos, “‘Things’ become the mirror of a civilization.”\textsuperscript{49} The tall buildings and high technology of American infrastructure could perhaps provide a model for ideas about metropolitan growth in Central Europe.

From his time in America, Loos probably drew most directly not from the 1893 Chicago World’s Fair but rather from the enormously advanced technologies of new building types found in each city. Cast-iron facades had inhabited New York’s commercial districts since the 1850s, but perhaps more influential were the minimally-decorated, stripped down, iron- and steel-frame Chicago-school skyscrapers constructed just prior to the 1893 Fair, like Burnham and Root’s Rookery building and William Le Baron Jenney’s Second Leiter Building, among others. Loos also wrote an essay admiring American bathroom technology, and the resulting state of American hygiene that far outstripped Europe’s. For Loos, a plumber was “the pioneer of cleanliness,” and he argued that only when Austria had improved its own bathroom facilities and procedures would it “[achieve] a level of culture equal to that of other Western countries.”\textsuperscript{50}

Taking up Loos’ project of analyzing American technology is a book by Richard Neutra from 1927 that will be explored in more detail in Chapter 4. \textit{Wie baut Amerika} examined the technological potential of the new construction systems by defining a rigorous compositional system connected to the production capacity of the local building industry.\textsuperscript{51}

\textsuperscript{49} Gravagnuolo, 47-48.
\textsuperscript{51} See Neutra, \textit{Wie baut Amerika}? (Stuttgart, 1927). See also Erich Mendelsohn, \textit{Amerika, Bilderbuch eines Architekten} (Berlin, 1926).
Viennese architecture over the next decade, most clearly stated in his polemic against the decorative aspects of the Secession style, his 1908 essay “Ornament and Crime.”\(^5\) Loos never designed an abstract model of an ideal expanding city like Wagner did, which can perhaps be attributed to a distaste for utopia. Nevertheless, the two architects pushed similar agendas about the significance of technology in modern urban design, and the cosmopolitan quality of new forms.\(^6\) Loos’ deeply felt first-hand experience of America, and his fascination with the use of technology in building and infrastructure he found there, had a powerful impact on a younger generation of Viennese architects.

In the context of these various tendencies, from the more comprehensive conception of Vienna created after the incorporation of its suburbs, to the romantic yet proto-modernist views of Sitte, to the relative break from historicism put forth by Loos and others, Otto Wagner was transformed via his theoretical texts from a key figure in the internationalization and transformation of Viennese city planning into something rather more visionary. In addition to the physical intervention into the city of Vienna that Wagner was able to execute with his \textit{Stadtbahn} projects, Wagner’s 1896 book, \textit{Modern Architecture}, and his short 1911 tract, “The Great Metropolis,” asserted to a worldwide audience his views on architecture’s relationship to history and to technology, a relationship integral to a new model of large-scale, high-speed, metropolitan expansion.

While in 1893 Wagner proposed that the beauty of the cityscape arose not from a harmonious combination of heterogeneous parts but rather from the merging of these parts into a


\(^6\) See Otto Wagner’s lecture delivered in Budapest in 1915 in which he stated: “The artistic expression of architectural works must be similar in every center of culture, since the way of life and the system of government are similar. If we accept this argument, we should realize that a national style cannot exist” (published as Otto Wagner, “Udvozlet a Magyar epitomuveszeknek,” \textit{Vallalkozok Lapja} 51 [22 December 1915], cited in Akos Moravanszky, \textit{Competing Visions: Aesthetic Invention and Social Imagination in Central European Architecture, 1867-1918} (Cambridge, MA, 1998), 239-240. Translated in Blau, “The City as Protagonist,” 11.
comprehensive whole, by 1896 he argued that the visual experience of modern times had itself changed. The human eye had become accustomed to viewing the city on a larger, straighter, more uniform scale.\textsuperscript{54} In 1911, Wagner would conclude, “Art must therefore conform its city plan to the needs of the mankind of today.”\textsuperscript{55} In both the 1896 book and his 1911 text, Wagner showed himself to be an advocate of metropolitan expansion, in stark contrast to the de-urbanization and decentralization propagated by the British garden city theorists.\textsuperscript{56} Rather than attempting to limit growth, urbanism on this model, which includes the later work of Eliel Saarinen, and in more imaginary ways, of Neutra and Wright, tried to reorganize the city order to improve communication and decrease traffic density. Renate Banik-Schweitzer has termed Wagner’s form of urbanism “decentralized concentration,” to which I would add a preoccupation with accommodating expansion via high-speed transportation networks.\textsuperscript{57} Wagner’s theory of urbanism emerged in a period of such radical population and technological growth that his confidence in continuous large-scale metropolitan growth is hardly surprising.

Wagner’s book \textit{Modern Architecture}, which was almost immediately translated into multiple languages and subsequently reprinted with additions in 1898, 1902, and 1914, was essentially a textbook for architecture students, a fact that speaks to Wagner’s vast influence on the younger generation at the School of Fine Arts.\textsuperscript{58} The book is made up of five chapters with different themes. The first chapter “The Architect” is an introduction to the profession, while “Style” explores Wagner’s rejection of eclecticism and passion instead for architecture that

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\textsuperscript{55} “‘The Development of a Great City’ by Otto Wagner: Together with an Appreciation of the Author by A.D.F. Hamlin,” \textit{Architectural Record} 31 (1912): 489.  
\textsuperscript{56} Ebenezer Howard, Garden Cities of To-morrow, 1898 (Cambridge, MA: MIT Press, 1965; Raymond Unwin Town Planning in Practice: An Introduction to the Art of Designing Cities and Suburbs, 1909 (New York: B. Blom, 1971)  
\textsuperscript{58} Wagner, \textit{Modern Architecture}. Wagner’s original text was translated into English and known to Wright and the Chicago architects within a couple of years – see Mallgrave’s introduction, 44.
reflects modernity. The next chapter, “Composition,” describes basic design principles and concludes with several practical tips for architecture students. “Construction” is a more polemical argument for Wagner’s theory of modernism, while the last chapter on “The Practice of Art” covers a range of issues, including presentation techniques, the relationship of hygiene with modern architecture, and urban design.  

Three major topics arise again and again in Modern Architecture: a desire for simplicity in the accommodation of modern needs, the artistic and ethical problems of stylistic eclecticism, and the demand for a new style based on contemporary technologies and construction methods. Although the book is therefore rather broad, the messages it promotes about architecture and urban design with regard to historicism and to engineering reflect the intellectual and stylistic shifts evident in Wagner’s work, from the neoclassical 1880 “Artibus” project, to the mid-1890s rail stations, and to the simplified interior of steel and glass in his 1904 Post Office Savings Bank.

In an 1897 review of Wagner’s book that reinforced the perceived distinctions between Wagner and Sitte’s urban design theory, Karl Henrici argued that Modern Architecture “suffers from a certain one-sidedness insofar as it focuses almost exclusively upon the technical achievements of the modern period, on the anticipated ever increasing perfection of modern means of transport and upon metropolitan life.” Henrici believed that this focus on technology had already been put into play by American architects, and that giving such primacy to it reveals a lack of concern on Wagner’s part for forms that express the “soul of the people (Volksgemüth).” By “soul of the people,” Henrici was referring to a homegrown, German

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59 Two more chapters were added to the 1914 edition, “The Promotion of Art” and “The Criticism of Art,” though neither is very significant to the book’s major arguments. See Mallgrave, introduction to Modern Architecture, 29.
60 Mallgrave, introduction to Modern Architecture, 29.
62 Ibid.
understanding of the city, an idea that was antithetical to one of Wagner’s central themes, that of a cosmopolitan modernism. Wagner viewed modern urban life as characterized by abstraction, by dynamic and efficient circulation, and by monumentality, a diverse set of features tied together by their universal, rather than local or national, quality. Just as Adolf Loos would argue in 1908 in “Ornament and Crime” in regards to modern architecture, Wagner saw the modern city as an international phenomenon, rooted neither in a specific place nor a specific historical context. For this reason, as will be discussed later, it was the Grossstadt - the Great Metropolis - that held his attention, rather than the national context of Austria-Hungary. As Eve Blau has put it, “Wagner’s deracinated ‘cosmopolis’ [was a] utopia that existed principally in the ideological force-field defined by the opposing claims of supranational empire and self-determining peoples which polarized Austro-Hungarian political life in the period preceding WWI.” Though operating in a far different political, social, and technological environment, the projects of the 1920s-1930s at the center of this dissertation should be seen as similarly conflicted about site, place, and cultural specificity in creating a visionary American urbanism.

Wagner’s deep-seated belief in the cosmopolitan quality of modernism is further reflected in another obsession in Modern Architecture, the relationship of architecture to history. Wagner viewed the repetitive, eclectic copying of historical styles as the dominant thread of late-nineteenth-century architecture. Eclecticism was defined by Wagner in the introduction to his Sketches, Projects and Executed Buildings as representing “untruth and inauthenticity, false

63 Loos, “Ornament and Crime,” in The Architecture of Adolf Loos (London, 1897); Wagner, Modern Architecture. This point is also made by Blau and Platzer in Shaping the Great City, 131.
65 Wagner, Modern Architecture, 93, and elsewhere. Mallgrave views Wagner not as an innovator but as an heir to debates, sparked by Heinrich Hübsch, Friedrich von Gärtner, and Leo Von Klenze, among others, concerning the creation of a new architectural style in Germany in the late nineteenth century. See Mallgrave, introduction Wagner, Modern Architecture, 14.
pathos and empty phrase-making.” In contrast, the modern age was characterized by “realism,” eclecticism’s opposite. In his intellectual turn away from historical eclecticism and towards the needs of the contemporary world, Wagner was likely influenced by a wide variety of sources, including recent discussions of aesthetics, empathy theory, and the evolution of architectural styles over time by Gottfried Semper, Robert Vischer, and Heinrich Wölfflin, among others.

The German-speaking world was almost certainly aware of the radical technological experiments of Gustave Eiffel and Victor Contamin at the 1889 Paris World Exhibition, as well as other French experiments with form. Although Wagner’s critique was not so much of history per se but of the perceived failures of stylistic eclecticism as an architectural language, by 1896’s *Modern Architecture*, Wagner stated that we “must become fully aware that the sole departure point for our artistic work can only be modern life.” Wagner’s desire to break with the past is thus connected to a desire to break with a formal language that holds no relevance for modern man or for modern metropolitan life.

As Wagner stated in his chapter “Construction,” modernity in architecture meant utilizing modern construction methods and materials, creating building types appropriate to modern life, and designing buildings with a clear accord between interior and exterior; Wagner called for an architecture that would reveal the truth of its construction. His discussion of architecture and engineering forms the third major theme of *Modern Architecture* that is critical to Wagner’s interest in urbanism and eventual turn to visionary planning. From the 1890s onward, Wagner attempted to bring the engineer and artist-architect together in his projects, arguing that the

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67 See Mallgrave’s introduction to *Modern Architecture* for a lengthier discussion, 23-25.
68 Wagner, *Modern Architecture*, 109. Iain Boyd Whyte argues that for Wagner, history was about a “discourse with the masters of the past, and with their solutions to comparable questions.” See Whyte, “Vienna Between Memory and Modernity,” in *Shaping the Great City*, 125.
design of urban infrastructure in particular should reflect the monumentality of new materials and construction technologies. Wagner’s stations and bridges designed for Vienna signaled this interest. The *Stadtbahn* station at Unter-Döbling of 1895, for example, uses an iron supporting screen as a decorative motif, with geometric patterns evoking monumental classical arches.

Wagner fine-tuned his association of art, engineering and modern urban life in the chapter “The Practice of Art,” where he worked through the relationship between art and city planning. Even as he committed himself to a cosmopolitan modernism, Wagner laid down a specific critique of the city of Vienna, stating:

> The outrageous accumulation of rubbish, cultures of bacteria, an unprecedentedly shabby street appearance, the blockage of passageways, and hygienic practices that cannot be sufficiently condemned are but a small part of the grievance. The much too sharply cambered surface of the streets, which greatly narrows the pavement; our unfortunately much-varying levels; the utter ‘disorder’ of our housing alignments; wooden telegraph posts facing every which way; poles for the overhead lines of the electrically powered vehicles arranged completely haphazardly, as is the track system of the same; and the equally confused distribution of gas lamps – all combine with innumerable sheds and other buildings standing on the street to produce a positively chaotic picture.

He stated that although city planning had primarily been concerned with practicalities, art was needed to fully resolve this disorder. Wagner wrote: “Art will appear more determined and claim its rights only where its creation is an end in itself. This will result in traffic, economic, and sanitation demands being precisely defined and specified, and the architect exploiting these premises artistically when implementing the city plan.”

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72 Wagner, Modern Architecture, 115.
73 Ibid., 103.
straight versus curved lines in the cityscape, and the effect of various street forms; he attempted to justify the use of straight streets in particular, stating: “The busy man, whenever possible, moves in a straight line, and that the person in a hurry is surely annoyed by the smallest time-consuming detour. The last decades have even carried the banner ‘Time is money.’” Wagner seems not to have considered that straight lines could also be somewhat inefficient, as in a grid plan. This association of straight lines and speed would be further developed in August Endell’s *Die Schönheit der grossen Stadt* (The Beauty of the Great City) in 1908. Just as Wagner had described in *Modern Architecture*, Endell called on his earlier essays on modern architecture to analyze the new image of the metropolis. He wrote, “The straight line is not only mathematically but also aesthetically valued above all others… The straight line gives the feeling of speed: lesser speed the wider and shorter the line is, greater speed the thinner and longer it is.”

For Wagner and Endell, the rapid pace of individual and vehicular circulation within the city served as a metaphor for the speed and high-tech nature of modern life.

This concept of movement throughout the city which Wagner viewed as a hallmark of modernity was in fact not so different from Sitte’s arguments; both were concerned with designing urban spaces that reflect the modern need for efficient circulation, even if their specific sources and solutions to this problem were different. In *Modern Architecture*, however, Wagner departed substantially from Sitte in his discussion of modern transportation options, especially trains. He explored the pros and cons of elevated and underground train systems, favoring the latter because it “has almost no effect on the image of the street; it is more easily accessible,”

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74 Ibid., 110.
76 Endell, *Die Schönheit der grossen Stadt*, 119.
though he noted the high cost and its relative unpleasantness for the traveler. Wagner described the visual effects of the use of new materials in bridge design as well, emphasizing the relationship of the bridge to the cityscape, and the role of the architect in monumentalizing and making artistic the “brutish appearance of the new material – iron” on these utilitarian structures. The artist-architect should be responsible for shaping the views from each bridge, “offer[ing] the person approaching it the necessary aesthetic preparation” by richly articulating entry points and railings. The project for the Ferdinandsbrücke competition that Wagner illustrated in 1905 clearly reveals these interests. The bridge proposal, visibly displaying half of its construction, appears to represent a compromise between the architect and engineer. From the massive pylons that maintain a balanced spatial relationship to the surrounding buildings to the ring-bearing putti seated on top of the iron-frame construction, art seems to triumph but never completely deny the engineering aspects of the bridge (Figure 16). The monumentalization of complicated multi-level infrastructure on display in these illustrations seems to prefigure the projects of the Italian Futurists as well as the high-speed visions of Saarinen, Neutra and Wright.

Fritz Neumeyer has referred to Wagner’s Ferdinandsbrücke as an urban “viewing platform,” an idea that gets to the heart of the architect’s highly visual conception of metropolitan modernity. For Wagner, the most basic optical, perspectival, human experience of the city was transformed by modernity to one of constant motion. As he wrote in Modern Architecture, this acceleration of human speed within the metropolis actually changed how the eye perceived buildings and streets: “the modern eye has lost the small, intimate scale, has accustomed itself to fewer varied images, to longer straight lines, to more extensive surfaces, to

77 Wagner, Modern Architecture, 111.
78 Ibid., 113.
larger masses.” He focused specifically on the consequences of this for large apartment blocks, calling for a shift away from elaborate, eclectically historicist facades and towards a more reduced, abstracted decoration more easily grasped by humans in motion. Wagner’s articulation of new modern techniques of perception should be linked to his urban planning designs as well. It was the hurried, anonymous, aspects of human experience in the modern city Wagner highlighted in his expanding plan for Vienna and the Stadtbahn of the mid-1890s; he would return to this view in the Grosstadt project of 1911.82

German planners and architects also contributed theories about the future metropolis in the first decade of the twentieth century, including Karl Scheffler, A.E. Brinkmann, and Peter Behrens. All three translated the concepts found in Otto Wagner’s Modern Architecture of 1896 to the German context in their focus on architectural uniformity in urban design, and on an almost Baroque creation of broad avenues and monumental vistas. These ideas were meant simultaneously to reflect modern life and to meet the needs of the future city. In 1903, Scheffler connected architectural uniformity within the city with democratic ideals, writing, “The old city image corresponded to different social conditions. The democratic present with its egalitarian tendencies with the demand for concentration prohibits the picturesque building design of the Middle Ages.”83 This is similar to Wagner’s fascination with the contrast between anonymous exteriors facing the city, and intimate, comfortable, interior design.84 Scheffler’s observation was more fully developed in later texts, especially in Berlin: Ein Stadtschicksal (Berlin: A City of Destiny) in 1910, and in Die Architektur der Grossstadt (The Architecture of the Metropolis) in 1911.85

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82 Frisby, “The Metropolis as Text,” 26. Frisby relates this to Simmel. See also Beatriz Colomina, Privacy and Publicity (Cambridge, MA, 1994) on perception.
In the 1910 piece, Scheffler criticized Berlin’s “barbaric monumentalism,” calling again for uniformity in design, while in 1913 he delved deeper into what this new urban model might actually look like. In the later text, Scheffler more concretely theorized an ideal city, a new urban model based on a central business district dominated by high-rise office buildings; he stated that “the concentration of business life could never be strong enough” in this innermost zone of the metropolis.

A.E. Brinckmann was an art historian whose 1908 text, Platz und Monument (Plaza and Monument) responded to both Camillo Sitte’s and Otto Wagner’s urbanist models in the stress given to the “straight line and right angle [as] the principal elements of architecture,” and to the creation of picturesque views along broad avenues. Brinckmann conceived of urban planning in three dimensions, and like Sitte emphasized the visual and formal relationships between dwellings, the street, and the city as a whole, though he would criticize Sitte’s romantic tendencies in favor of what he viewed as a more practical reliance on regularity in planning. Despite his general lack of concern for either the civic functions of public spaces, or the technical problems of infrastructure and urban expansion, Sitte’s and Wagner’s interest in circulation nevertheless situates them both, conceptually if not formally, as precursors to Brinckmann’s theories of urban design.

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88 In an article titled “The City of the Future,” however, Brinckmann did view the city as a reflection of contemporary social and political goals: “What we need to awaken is the understanding of architectural expression... Then it will be easy to represent the character of our civilization, ideas and the efforts of the citizens in architectural form.” Brinckmann, “Die Stadt der Zukunft,” Die Bauwelt 1, no. 70 (1910): 4. Translated in Sonne, “Greater Berlin,” 108.
Around 1910 more and more information, both firsthand and not, about the New York City skyscraper landscape had reached Berlin, leading to numerous debates over the potential of tall buildings to solve some of Germany’s urban problems. The general feeling towards skyscrapers was negative, with most writers viewing them as aesthetic threats to the Berlin skyline, despite the technical achievement of their construction. Peter Behrens was one of the few Germans to get firsthand experience of America, in a visit of 1911-12, and subsequently entered the discourse over the applicability of skyscrapers to the European context. Behrens held a longstanding interest in the city, as is evident in a 1910 plan and text, “Kunst und Technik,” though he wouldn’t expand on his views until a lecture at the 1914 meeting of the Werkbund that related in large part to Scheffler’s 1913 text on the metropolis, and also to Wagner’s *Die Grossstadt* article of 1911 described below. Behrens highlighted the idea of high-speed circulation within the city, stating: “Hurry is the elementary basis of our work, but it has not yet become a cultural form mastered by art.” He went on to argue that urban design should reflect this tendency of modern life, comprising broad, straight, streets, a reduced, clear layout of the city plan, and a uniformity in building design, a principle that would accommodate modern man’s rapid pace and inability to absorb the details of buildings. Behrens felt that “the medieval picturesque idyll will not serve as an aesthetic ideal worth emulating, rather the axial ensembles of the Baroque age will seem to have more in common with contemporary

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architecture.” Richard Pommer has related Behrens’ view of the city both to Riegl’s rejection of Semper’s supposed materialism, and to the classicizing formalism of Wölfflin.  For Behrens, the architect would be the primary arbiter of urban design, an idea that presages Wright’s view of the architect as the senior authority in Broadacre City.

After the turn of the twentieth century, a new urgency for urban planning solutions arose in both Berlin and Vienna, as the flaws of late-nineteenth century planning were exacerbated by continued population growth. This urgency is reflected not only in the theoretical tracts already discussed, but also in actual, forward-looking plans for both real urban expansion and imaginary cities. The planning competition for Greater Berlin of 1908-1910, which led to the 1910-1911 International Planning Exhibition in Berlin, as well as Wagner’s Die Grossstadt project 1911, would play crucial roles in spreading the concept of visionary, high-speed infrastructure and city planning to architects around the world; they would especially impact the futuristic American plans of Neutra, Saarinen and Wright.

Given the general inadequacy of Berlin’s 1862 Hobrecht plan to create a truly effective extension plan, by the early 1900s, a campaign arose among reform groups and the two local architects’ associations calling for a more effective metropolitan plan. At a 1906 meeting, the Berlin architects Emanuel Heimann, Albert Hofmann and Theodor Goecke argued that a single, integrated development and transportation system could level out the inflated land values that characterized contemporary Berlin. The following year, the Vereinigung Berliner Architekten and the Architekten-Verein zu Berlin established the Ansiedlungsverein Gross-Berlin (Association for the Development of Greater Berlin), chaired by Otto March. This joint


94 Pommer, “More a Necropolis than a Metropolis,” 28. On uniformity, see Peter Behrens, in Alfred Dambitsch, ed. and Berliner Morgenpost, Berlins dritte Dimension (Berlin, 1912), 9.
association issued a set of guidelines that called for the administrative coordination of the entire region and a planned decentralization out to a ring of new settlements built on state-acquired land, to be served by an improved transportation system; all were to be accomplished in an “artistic manner.”

The Competition for the Development of a Basic Plan for the Construction of Greater Berlin was officially launched on October 15, 1908, inviting plans for both the existing city and its suburbs extending as far as Potsdam that would accommodate future population growth to at least five million inhabitants. The competition’s intention was to bring every aspect of the city under the control of urban planners, attempting to find “a broad and consistent solution both as regards the demands of transportation and as regards those of beauty, hygiene, and economic efficiency.” Moreover, the designs were to consist of three essential planning types: a basic building plan for a residential area of about 1200 square miles, a partial plan for a central city neighborhood, and suggestions for individual construction projects. The plans were to present

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solutions for specific contemporary problems, including the living conditions of the lower classes, the creation of green spaces, and the alleviation of congestion downtown. Finally, the competition brief called for a rationalization of the railway system and its eight large terminals.

On March 19, 1910, the jury announced its decision on the winning entries among the 27 competition designs. They awarded two first prizes, a third and a fourth prize, and selected four designs for acquisition. The award-winning projects were all by architects and planners working in Berlin, probably due to the local knowledge required by the competition, and the fact that although it had encouraged international submissions, the competition brief was only published in the German-speaking areas of Europe.

Many different themes emerged in the submissions to the competition for Greater Berlin, particularly a widespread emphasis on a uniform modern style and on decentralized expansion. Joseph Brix and Felix Genzmer’s first-prize entry was sponsored by the Elevated Train Corporation, and illustrated a rail line tunneling under a redesigned Königsplatz, connecting Lehrte Station with the Potsdam and Anhalt stations (Figure 17). In his first prize plan, Hermann Jansen on the other hand restricted himself to designing some new streets only for existing areas between the Potsdam Bridge and Kemperplatz (Figure 18). He also attempted to apply the concept of architectural uniformity to housing blocks and office buildings; much like Wagner in Vienna, Jansen wanted to counter both historical eclecticism and the Jugendstil then popular in Berlin. Projects by Siegfried Sitte and Martin Machler also contained major traffic arteries running through the central city, an idea that was later paralleled in Saarinen’s Chicago and Detroit projects. Machler created a central linear avenue in his project, lined with major federal

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99 Even so, according to Wolfgang Sonne’s extensive appendix, there was one entry each from France, Austria, Switzerland and the Netherlands. Ibid., 111.
100 Lampugnani, “Modernism and the Metropolis,” 249.
and municipal buildings, which would function as the “principal entrance point of the state
community.” This suggestion reveals a desire to retain a strong civic identity as a capital city
even as the metropolis grew exponentially. Finally, both Jansen’s and the third prize plan, by
Rudolf Eberstadt, Bruno Möhring, and Richard Petersen, reflected connections to both the
German and English Garden City movements that show the international scope of influences on
the competition’s submissions, and an interest in integrating nature into the metropolis. Jansen’s project consisted of perimeter city blocks surrounding green spaces that were meant to
replace the dark courtyards then typical of Berlin’s tenement housing, while Eberstadt, Möhring
and Petersen’s plan was more clearly interested in linear decentralization, not with roads so
much as with a system of narrow radial parks reaching outward from the center of the city. In
contrast to the English projects, however, the Berlin plans all aimed to embrace, rather than
restrict, future population growth.

In 1910, as part of a campaign to promote the results of the Greater Berlin competition, a
large international city planning exhibition organized by Werner Hegemann opened at Berlin’s
Royal Academy. Although none of the prize-winning entries were ever realized, through this
exhibition they would have considerable influence on the urban planning discourses of the
period, both within Germany and elsewhere. Later chapters of this dissertation will discuss the

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103 The Deutsche Gartenstadt Gesellschaft was founded in 1902, and began publishing the journal Gartenstadt : Mitteilungen der Deutschen Gartenstadtgessellschaft in 1907.
specific evidence of Saarinen, Neutra and Wright’s exposure to this exhibition. Werner Hegemann was an urban planner and theorist whose career was marked even from the beginning by a distinct transatlantic quality. After completing some education in Europe, Hegemann spent time working on his doctorate in economics at the University of Pennsylvania, and came back to America in 1909 to consult for urban planning exhibitions in Boston, New York and Washington, DC. After returning to Germany, Hegemann was immediately drafted by his uncle Otto March to supervise the international planning exhibition. The exhibition moved to Düsseldorf later in the year, and inspired a second exhibition in that city in 1912 to accompany an urban development policy conference. The exhibitions were so successful that Theodor Goecke argued that finally “Städtebau” had come of age in Germany. In addition to the Berlin competition plans, Hegemann featured English and American examples at the International Planning Exhibition, and publicized the show via articles and a two-volume catalog. In the catalog, Hegemann wrote that “the main goal must be ideal housing for the inhabitants of Greater Berlin and good public transit connections” instead of “more monumental tasks in urban development.”


107 See C. Collins, Werner Hegemann and the Search for Universal Urbanism (New York: W.W. Norton, 2005), 21-31 for details of these exhibitions and Hegemann’s involvement.


110 Hegemann, Der Städtebau, 80, 123. Translated in Sonne, “Greater Berlin,” 106.
young Le Corbusier, who was apparently so affected after viewing it that he would later attempt to get Hegemann’s approval for his 1922 Ville Contemporaine project.\footnote{Hegemann had little positive to say about it: see Hegemann, “Kritik des Grossstadt-Sanierungs-Planes Le Corbusiers,” Der Städtebau (1927): 69. Oechslin argues that Le Corbusier likely learned about French urban planning history and the embellishment theories from Hegemann: Oechslin, 291. See also C. Collins, Hegemann and Peets, xix.}

In Vienna, meanwhile, Wagner was invited by A.D.F. Hamlin of Columbia University in March of 1910 to submit a paper for a conference on urban design to be held in New York. In 1911 this treatise on urban planning was published as Die Grossstadt: Eine Studie über diese Grossstadt (The Metropolis: A Study of the Same), and shortly thereafter in English as “The Development of the Great City.”\footnote{Wagner, Die Grossstadt: Eine Studie über diese (Vienna: Anton Schroll, 1911). In English “‘The Development of a Great City’ by Otto Wagner: Together with an Appreciation of the Author by A.D.F. Hamlin,” Architectural Record 31 (1912): 485-500.} Wagner illustrated his large-scale vision through plans of the entire imagined metropolis, as well as a site plan and aerial perspective of a specific ward, or borough, which he referred to as the future twenty-second district of Vienna (Figure 19). Wagner’s design was laid out according to the concentric use and height restrictions of contemporary German cities, and allowed for skyscrapers at its center. The satellite districts were to be arranged around the central city in a pattern of specific zones two or three kilometers apart. Each ward would consist of around 100,000-150,000 inhabitants, corresponding to 500-1000 hectares.\footnote{Wagner, “The Development of a Great City,” 493.} Die Grossstadt contained a cellular conception of the city in which each ward would offer its own civic structure and public amenities like parks, playgrounds, schools, traffic routes and garages, even as a strong centralized government retained a measure of control over development.\footnote{Ibid., 493.} Wagner’s plan was rather innovative in his description of specific policies by which the municipal authorities could achieve this effortless expansion to accommodate population growth, namely through
expropriation of land for future development along predetermined lines.\textsuperscript{115} This was a system that allowed for unlimited expansion while assuring the city continued to function as a cohesive whole.

The circulation and public transportation aspects of the plan are most pertinent to grasping the influence of Wagner’s urban model on later visionary planning. Wagner observed in his plan that circulation within the modern metropolis occurred at different levels and in different directions within three dimensions.\textsuperscript{116} Wagner was likely inspired by a variety of aesthetic theorists like Adolf von Hildebrand and August Schmarsow, and certainly Georg Simmel, in the intensely visual, perceptual understanding of urban form expressed in \textit{Die Grossstadt}. This was an understanding of both the massive scale of metropolitan spaces as well as the ever-changing views that characterize modern urban experience.\textsuperscript{117} Wagner’s regularized three-dimensional plan should therefore be seen as an answer to the problem of the congested cityscape around the turn of the century, given exaggerated visual expression in images like William R. Leigh’s illustration, “Visionary City,” of 1908 (Figure 20).\textsuperscript{118} In his far more concrete solution, Wagner’s \textit{Die Grossstadt} describes the “constant circulation through zones…the movement to and fro through the radial streets” made possible by his transportation plans, and the importance of creating rational, systematic connections between elevated subway and street car lines at points of intersection.\textsuperscript{119}

Eve Blau argued that beginning in his rail station drawings, Wagner had developed a “visual corollary to this image of the modern city as mechanized body, in elaborate sections that

\textsuperscript{116} Blau, “The Historical City,” 171.
\textsuperscript{119} Wagner, “The Development of a Great City,” 493.
cut through buildings, bridges, viaducts, streets, railway tunnels, and riverbeds to show the vital interconnections and among these systems, on which the life and proper functioning of the city itself depends.” Infrastructure in *Die Grossstadt* is thus integrated into a complicated and comprehensive network in which local railways are both elevated above and depressed below street level, while trams, buses and cabs circulate at grade. At the same time, these local means of transport were to be coordinated with long-distance rail and water transportation networks.

Given his experience designing the Vienna *Stadtbahn*, Wagner was uniquely positioned to design this type of complex imaginary plan that combined the regulation of the older parts of the city and planning for future expansion. Wagner stated that the task of the planner for the old city was to “preserve its existing beauty and to exploit its advantages in the city plan,” while the future development of the city was to be systematized. Just as in architecture, Wagner emphasized the dynamic structural components of individual buildings rather than the static wall, in city planning Wagner tended to stress the high-speed traffic arteries rather than the relative monotony of his apartment blocks.

Many of the themes relating to urbanism evident in Wagner’s *Modern Architecture* book of 1896 were more thoroughly analyzed in Wagner’s *Die Grossstadt*, especially with regard to historicism, to the role of the architect in creating the modern metropolis, and to human perception of the cityscape. Similar to his argument in the earlier book, Wagner’s guiding point throughout the 1911 article is that “Art must give expression to the conditions of our own time. Art must therefore conform its city plan to the needs of the mankind of today.” More specifically, in *Die Grossstadt* Wagner explicitly rejected the historicists’ emphasis on creating

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120 Blau, “The Historical City,” 171.
121 Wagner, “The Development of a Great City,” 492.
122 See Sarnitz, “Realism versus Verniedlichung,” 97, for more on this comparison between Wagner’s architecture and planning.
irregularities in the layout of streets and squares, intended solely to produce artificial, picturesque vistas. Wagner wrote, “Every large city possesses of necessity a greater or smaller number of winding and irregular streets; but these have artistic warrant only when they result naturally from conditions of circulation, traffic, topography or the like.”124 Without naming Sitte directly, Wagner positioned himself in contrast to the more romantic, historicist strand of planning theory, though Carl Schorske and others made more of the specific opposition to Sitte than is warranted. Schorske focused on their relationship to history, arguing that where Sitte had stressed preservation of the historical past and the construction of public squares, Wagner recognized the futility of rebuilding the old city. Wagner’s major concern was instead the periphery and surrounding countryside, the sites of future development. As in his plan of 1893, Wagner designed for Die Grossstadt radial lines of rail and road stretching out from the center city to set the direction of growth. This plan, removed from any specific historical place or time, could expand infinitely as the population increased, with new sub-cities simply inserted into the net-like design system.

Wagner’s drawings for his case study twenty-second district of Vienna made clear the form he wanted his Great Metropolis to take, while also exploring the role of the architect versus the engineer in creating this form, and its effects on the human eye (Figures 21 and 22). Wagner’s imaginary city included a variety of modern amenities, including restaurants, long thoroughfares lined with fancy stores and artistic displays, open squares with monuments, efficient transportation, and “a faultless street-cleaning department.” All of these would act as “conditioning factors of a favorable impression on the artistically indifferent average man.”125 In Wagner’s view, it was the city’s responsibility to provide a beautiful, clean, pleasurable

124 Ibid., 490.
125 Ibid., 490-491.
experience for its inhabitants; this could only be properly accomplished by the artist-architect. Confirming the arguments laid out in *Modern Architecture*, Wagner rejected not only the “the beauty-destroying influence of the engineer,” but also “the power of the vampire, Speculation, which now makes the autonomy of the city almost an illusion.”\[^{126}\] The buildings themselves were to be largely uniform and corresponded to a strict grid plan, expressing visually the urban anonymity and monumentality with which he had been obsessed since the 1890s. Echoing his earlier statements on urbanism, Wagner wrote in the 1914 edition of *Modern Architecture*, “By broadening the streets the architects of our time have raised uniformity to monumentality.”\[^{127}\] However monotonous the resulting cityscape might be, this call for uniformity and monumentality was emblematic of the larger urban planning issues percolating internationally as *Die Grossstadt* was published: the synthesis of a practical, technological orientation with an artistic one, and the emphasis on managing urban growth. The long, unbroken block-fronts and resulting reduction in traffic intersections illustrated in Wagner’s text were manifestations of these issues, and served as solutions both to the muddled variety of late-nineteenth urban design and to the problems of congestion that were already apparent.\[^{128}\] The standardized, monumental architectural style Wagner called for mirrored the arguments propagated by the German architect Karl Scheffler in his 1903 essay “A Path to Style,” in which rows of buildings under construction throughout Berlin were used as a model for an abstracted, visual language of modernity.\[^{129}\]

There are sharp distinctions between Wagner’s project for expansion and other visionary planning models of the period. For Wagner, the metropolis was a creation of modern

\[^{126}\] Ibid., 494.
\[^{128}\] Also, monumentality and uniformity in urban design were issues of importance in German Werkbund circles. Larsson, “Metropolis Architecture,” 196. See Lane, “Changing attitudes to monumentality,” 101ff, 105ff.
industrialized society, and as such should reflect in its structure and architecture the potential of continued urbanization and economic expansion. Wagner’s fundamental conception of the city was meant to allow for infinite growth, where the garden city planners generally limited growth in their encircling greenbelts and relatively small population estimates.\(^{130}\)

Wagner’s rejection of single-family home-ownership in favor of densely packed and vertically stratified spaces for living, work, and circulation within the city further distinguished his conception of the *Grossstadt* from the decentralized garden suburb proposals of Deutsche Werkbund theorists like Scheffler, or the satellite city model proposed by Brix and Genzmer in the Greater Berlin competition that completely separated outlying residential districts from the centralized commercial, cultural, and recreation districts.\(^{131}\) Wagner felt that including traditional single-family dwellings in his plan would contradict modern human experience: “The number of city dwellers who today prefer to vanish in the mass as mere numbers on apartment doors is considerably greater than of those who care to hear the daily, ‘good morning, how are you’ from their gossipy neighbors in single homes.”\(^{132}\) Wagner’s visionary plan for the modern metropolis should therefore be read as an inversion of the garden city or satellite model; whereas the green spaces in the satellite model tended to isolate the small towns from one another, Wagner’s streets act as connecting elements between the districts, which are structurally and typologically urban in character.\(^{133}\) As will be demonstrated later, *Die Grossstadt*’s focus on densely-populated

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\(^{130}\) See Howard, *Garden Cities.*


apartment blocks stands in clear contrast to the American ideal of home-ownership reflected in Frank Lloyd Wright’s Broadacre City, even as the latter project shows the influence of Wagner’s urban theory in its use of the highway as a means of unifying dispersed areas into a cohesive whole.

The influence of Wagner’s *Die Grossstadt* on German architectural circles is fairly obvious, given the many publications of his work throughout Central Europe and the popularity of the Wagnerschule architects in the first decade of the twentieth century. On a personal level too, architects and urban theorists like A.E. Brinckmann and Peter Behrens expressed their deep admiration for Wagner in correspondence from 1914.\textsuperscript{134} In January, Brinckmann wrote to Wagner, “I have just finished reading your ‘Grossstadt-Studie.’ Your attack on all ‘painterly senility’ and ‘Sitteesque sentimentalities’ is so well done that I hurry to express my enthusiastic admiration. I myself have since my first publication... steadily worked in the same direction...”\textsuperscript{135} The theme of cleanliness that appears again and again in Wagner’s *Grossstadt* seems to anticipate the spare, fully decontextualized schemes of later Central European ideal cities, such as Ludwig Hilberseimer’s *Grossstadtarchitektur* from the mid-1920s (Figure 23). In that case, the desire for both the efficient propagation of municipal services and uniform blocks of monumental structures turned the modern metropolis into something that resembled, as Hilberseimer himself put it, “more a necropolis than a metropolis.”\textsuperscript{136} Hilberseimer had actually stated some of these values already in 1914, in an unpublished manuscript entitled “Die Architektur der Grossstadt.” In this text, Hilberseimer attacked what he perceived as Sitte’s

\textsuperscript{134} A postcard from Behrens appears to have been written to Wagner at a dinner party at Behrens’ house in Berlin-Neubabelsberg, and was signed by Behrens, his wife, and their guests, including Scheffler. Letter from Peter Behrens, et al., Berlin-Neubabelsberg, to Otto Wagner, December 17, 1914, Special Collections, The Getty Center for the History of Art and the Humanities, Santa Monica, trans. Neumeyer, “Iron and Stone,” 144.


\textsuperscript{136} Neumeyer, “Iron and Stone,” 142. See also Pommer, “More a Necropolis than a Metropolis,” 16-53.
overly romantic version of urbanism. In contrast, Hilberseimer highlighted examples of the modern metropolis existing only on paper, including not only Wagner’s projects for Vienna, but also the Greater Berlin competition and Eliel Saarinen’s subsequent projects for Helsinki and Canberra.137

The myriad journals, treatises, competitions, infrastructure projects, and imaginary plans in Germany and Austria at the turn of the twentieth century were all manifestations of the development of urban planning as a scientific field, and functioned as the backdrop on which Saarinen, Neutra and Wright created their later conceptions of the futuristic American city. Saarinen and Wright viewed some of the international exhibitions firsthand during their travels to Central Europe around 1910-1911, while Neutra was imbued with an interest in large-scale infrastructure and modern technology since experiencing the Vienna railway as a child. All three read widely and were cognizant of the recent theories of Sitte and Wagner related to circulation, efficiency, architectural uniformity, and the expanding metropolis. Saarinen, Neutra and Wright absorbed from Central Europe critical lessons about how to accommodate population growth through large-scale high-speed planning while retaining a comprehensive civic identity. The next chapter will explore similar lessons emanating from America, where the rapid popularization of the automobile made the problems of urban congestion rather more pressing.

CHAPTER 2

New York, Chicago, and Los Angeles in the Early Twentieth Century

If the centuries-old cities of Europe had given Saarinen, Neutra and Wright the science of urban planning and models of endless metropolitan expansion, America in the first three decades of the twentieth century gave them technological innovation and the broad spaces of a still-modernizing nation on which to lay their visionary designs for high-speed cities. The technological innovations took the form of telecommunications, large-scale infrastructure, and most significantly, the automobile; the broad spaces were the rapidly shifting urban landscapes of Chicago and Los Angeles. By the 1920s, the three architects’ attention was fixed firmly away from Europe, and away from the towering verticality of New York City; Saarinen, Neutra and Wright instead turned towards the increasingly horizontal, decentralized cities of the American West for inspiration. As explained in Chapter 1, the visionary projects for lakefront Chicago and Detroit, Rush City, and Broadacre City were rooted in German and Austrian urban planning at the turn of the twentieth century. Yet these projects, and the architects who created them, were simultaneously highly responsive to a uniquely American history of urban planning dating to the same period. Saarinen’s, Neutra’s, and Wright’s futuristic plans developed in the 1920s and 1930s rejected the verticality of skyscraper New York, and instead designed high-speed horizontally-oriented plans that were embedded within the larger conversations occurring in the Midwest and Los Angeles: how to effectively expand the city in the face of massive population growth, and how to manage the congestion problems brought on by automobile transportation.

This chapter will be structured chronologically and geographically around the three American cities to which Saarinen, Neutra and Wright looked for inspiration, both positive and negative. It will discuss the aspects of planning in each city most relevant to all three architects,
and trace the concepts of visionary urbanism and car culture with which they became fully engaged by the mid- to late-1920s. Just like in Chapter 1, the purpose here is to reinsert the visionary projects for American cities that will be detailed in Chapter 3, 4, and 5 into a historical context of urban planning that has so often been overlooked within the field of architectural history. This context, which included vast changes in urban skylines and a dramatic shift from regional rail lines to decentralized, high-speed freeways, garnered two reactions. Urban planners busy with the machinations of local government turned towards practical, and relatively small-scale solutions for urban development, while architects operating in a construction downturn and with little real involvement with planning boards or city bureaucracy turned to big, world-changing ideas that proved quite generative for their respective design careers.

Some general themes underlying American planning in the first part of the twentieth century, and the tendency towards a futuristic view of the car’s potential to solve urban problems, were discussed in the introduction. This chapter will explore specific components of visionary urbanism in New York, Chicago, and Los Angeles that influenced Saarinen’s, Neutra’s, and Wright’s projects. Placing the projects for Chicago, Detroit, Rush City, and Broadacres into specific histories of the City Beautiful, high-tech infrastructure, skyscrapers, and regional planning will add significant complexity to the traditional historical analysis of these projects and the role urbanism played in their designers’ architectural careers.

For Saarinen, Neutra, and Wright working in the American Midwest and California, New York City was an urban conglomeration to which they reacted in rather complicated and often negative ways. Their knowledge of the city was garnered mostly from secondhand accounts, not firsthand experience, yet the oppositional relationship of the horizontal extension and high-speed, complex infrastructure of their visionary projects to New York’s vertically-oriented
landscape indicate how large that city loomed in their consciousness. An important source on the history of New York City’s infrastructure is Carl Condit’s two-volume book *The Port of New York.* In it, Condit describes the dramatic shifts that occurred in the built environment of midtown Manhattan in the first few years of the twentieth century. Electrification of the rail system became standard, the subway system was developed, and monumental new terminals, Grand Central and Pennsylvania Station were constructed. Electrification in particular allowed for the large-scale infrastructure of New York that served as a model for futuristic cities like Rush City and Broadacres. By 1902 electric trains had replaced steam ones on the elevated railways above Second, Third, Sixth, and Ninth Avenues, and the New York Rapid Transit Commission opened the first electrified subway lines in 1904 and 1907, running from City Hall to the Bronx and Brooklyn, respectively. Indeed, between 1895 and 1910, engineers constructed fourteen new river tunnels, subway and main-line railways, and three long-span bridges. This complex system of new infrastructure was a direct response to the massive increases in New York City’s population, and to the increase in urban workers associated with the building of skyscrapers in Lower Manhattan.

Long before Saarinen and Neutra arrived in the United States, word of New York City’s incredible engineering achievements had spread across the United States and to Central Europe via publications like *Scientific American* and *The American City.* The December 5, 1908 edition of *Scientific American,* titled “New York, 1898-1908,” was especially important for describing

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3 Hughes, *Networks of Power,* 18-19.
the city’s transit system and illustrating cross-sections of Grand Central Station and its site on Park Avenue, and various other complex subway and tunnel systems around the city (Figures 24 and 25). The publication in Scientific American of these images glorifying the New York’s infrastructure networks played a big role in the history of modern architecture; the multi-layered transportation hubs proved highly influential for Otto Wagner in his Austrian projects of 1910, for the Futurist architect Antonio Sant’Elia in his 1914 drawings for La Citta Nuova, and also for the architects of my study (Figure 25). Saarinen’s over-scaled freeway solutions for the Chicago and Detroit riverfront civic centers, Neutra’s multi-functional airport in Rush City, and Wright’s high-speed monorail and automobile highway system in Broadacre City seem to contain direct formal relationships to these examples.

Even as these terminal stations and bridges were developed to regulate rail and subway traffic into and around New York, congestion was a persistent problem, and local organizations continued to search for more effective solutions. One result of this search was a crop of city planning exhibitions. Just as exhibitions contributed to the development of urban planning as a distinct science in early twentieth-century Germany, here too, exhibitions presented by these groups contributed new and often quite visionary ideas to contemporary discourses on urban planning. The most significant of these exhibitions were the 1909 City Planning Exhibition in New York City and the 1909 and 1910 National Conferences on City Planning in Washington, DC and Rochester, New York. These exhibitions were also important for spreading Central European planning models into the American consciousness.

Charles Mulford Robinson wrote a detailed description and analysis of the 1909 New York City exhibition, which took place at the 22nd Regiment Armory in May and was organized

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5 Ibid., see 405, 409, 413.
by Benjamin Marsh, the newly formed Committee on Congestion of Population, and the Municipal Art Society. The aisle dedicated to the Committee on Congestion of Population advocated new methods of land distribution for American cities. The aisle displayed large placards stating, “Taxation is Democracy’s Most Effective Method of Securing Social Justice” and “If the City Secured by Taxation a Large Part of the Increase in Land Values, Congestion Would Lose Most of Its Charm.” Robinson took a somewhat critical stance on the exhibition, arguing that when viewing these placards, an audience member would react defensively, “fear[ing] he was getting into something socialistic.” Some aisles were devoted to urban industrial conditions and good factory designs, some to infrastructure and utility systems, while others contained charts showing labor distribution throughout the city’s boroughs and the overcrowding of lower Manhattan, which the exhibition determined, perhaps hyperbolically, to be “the most congested district in the world.” Finally, there were a wide range of American and foreign city planning projects on display, including several from Germany that Marsh had gathered on his travels there. There were maps of the enormous tracts of land acquired by German cities for the purposes of urban expansion, and illustrations from Berlin’s enlargement project, including studies of traffic efficiency and highway development. According to Robinson, a sign nearby stated, “It is not a city’s chief end to be ‘stung’ by its citizens and to enjoy it forever. But it is a city’s chief end to provide the best and most healthful conditions for all its citizens, and to do this it must have a town plan for the whole city and an efficient administration.” For Robinson, this sign, and the plans for Berlin, reflected a notion of comprehensive city planning that should be adopted throughout the United States.

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7 Ibid., 314.
8 Ibid.
9 Ibid., 316.
Following the 1909 City Planning Exhibition in New York, an annual series of national conferences on city planning began. The first national conference held later in 1909 in Washington, DC contained largely the same material as the New York City exhibition, and was similarly well publicized in the professional planning world.\(^\text{10}\) The Second National Conference in Rochester in 1910 continued these explorations, and was written up by Benjamin Marsh, one of the members of the 1909 Committee on Congestion of Population.\(^\text{11}\) Marsh viewed congestion as primarily an economic issue, arguing that urban overcrowding was the “result of protected privilege and exploitation” of the rich over the poor; Marsh saw a “vicious circle in congestion,” of tenement owners paying high rates for the land and then claiming it as a legal right to crowd people into tenement housing and charging higher rents.\(^\text{12}\) The Rochester exhibition explored a number of underlying causes of congestion, including land speculation, immigration, inadequate housing regulation, and the clogging of industrial and commercial business within already crowded districts.\(^\text{13}\)

All of these exhibitions were publicized in Germany by Werner Hegemann, who attended and reviewed the 1909 New York City and Washington, DC exhibitions. Hegemann had already become involved in American planning via the so-called “Boston 1915” movement, a six-year civic improvement plan begun in 1909 by the Boston department store owner Edward A. Filene. The program for “Boston 1915,” displayed at the 1909 First National Conference on City Planning, called for the establishment of a comprehensive incorporation of thirty-seven suburban...

\(^{12}\) Ibid., 35-36.
\(^{13}\) Ibid., 36-39.
towns into “Greater Boston,” on the model of Greater Berlin. “Boston 1915” was primarily focused on growing the “civic consciousness” of the region’s citizens rather than on implementing an actual plan. Nevertheless, Hegemann continued to follow his interests in American planning, writing a review of the New York City Planning Exhibition in Der Stadttebau shortly after. In the two-part series, he described its possible relevance to the upcoming Berlin and Dusseldorf planning exhibitions in regard to the organization of displays and the inclusion of various kinds of material like city plans, models, artworks, statistical tables, and explanatory posters. At the end of the report, Hegemann wrote, “[A]n exhibition, similar to the New York City Planning Exhibition, could offer Berlin much of interest, perhaps even surprises, causing a sensation, and thereby captivating the attention of the citizens for many important problems. It would raise public awareness and thereby advance the incisive transformations in the townscape and city plan of Berlin, a delay of which, according to the experts, would gravely endanger the capital of the country (Reichshauptstadt).” Here is more evidence of the American and Central European connections forged through city planning exhibitions described in Chapter 1.

Another feature of early twentieth-century New York urbanism that had transatlantic significance was the development of skyscrapers. Wright would harshly criticize New York’s landscape of overcrowded towers, first in his 1930 Princeton lectures, and then in Broadacre City. Saarinen and Neutra similarly worked to situate their visionary designs as high-speed...
solutions to New York’s congested streets.\textsuperscript{17} By the second decade of the twentieth century, whole-block skyscrapers with distinctive towers, such as the Singer and Woolworth buildings, had seemingly run rampant over lower Manhattan and created a congested and overbuilt atmosphere ripe for some kind of regulation. The 1916 New York City zoning law that resulted called for two main changes: the division of the city into districts regulated by function (i.e. business, residential, and industrial), and the restriction of the height and mass of a tall building on a given lot. The law helped create the setback formula, which required buildings of a certain height to be set back at a specific angle to allow for light and air to penetrate down to the street; this would in large part dictate skyscraper design for the next several decades.\textsuperscript{18} Carol Willis has focused on zoning as a major inspiration for visionary urban planning projects in New York City. Although her arguments do not relate as closely to the urban plans studied in this dissertation, they nevertheless are convincing within the specific context of New York. Willis’s work argues for a greater historical appreciation of the influence of zoning on planning theory; she believes that the architects and renderers in her discussion, like Harvey Wiley Corbett and Hugh Ferriss, read the zoning laws as prescriptive, rather than proscriptive, plans for what should be built instead of simple prohibitions. Although Willis’ conclusions about the impact of zoning as the key factor in this shift towards a visionary conception of the city are rather narrow, her recognition of the visionary tendencies in early twentieth-century architecture and planning is distinctive among the work of architectural and urban planning historians.


After World War I ended and the post-war economy began to recover in the early 1920s, Saarinen, Neutra, and Wright embarked on their urban planning research and design work in Chicago, Los Angeles, and Wisconsin at the same time that urban designs of two rather different kinds were underway in New York City. These New York modalities were the centralized skyscraper cities of Hugh Ferriss, Harvey Wiley Corbett, and Raymond Hood, and the garden suburb projects promoted by Lewis Mumford and the Regional Planning Association of America. Both of these approaches to the future city should be seen as foils against which Saarinen’s, Neutra’s, and Wright’s visionary urban designs were reacting and responding. Although the centralized towers and garden suburb models have dominated the historical discussion of visionary planning, this dissertation argues that another strand existed outside of New York City. In the Midwest and in southern California, this alternative form was based not on small-scale, restricted communities, nor on vertical concentration, but on a lower density, growth-oriented, high-speed pattern of urban decentralization. For Saarinen, Neutra and Wright, the ever-taller buildings and chaotic congestion of New York, and to a certain extent Chicago, inspired a new way of thinking about the American city of the future.

In 1922, the architectural delineator Hugh Ferriss exhibited illustrations that showed the effects of the 1916 New York City zoning law on skyscraper form (Figure 26). The renderings clarified how the zoning-envelope formula could be translated into dramatic architectural statements. Ferriss published these images in his article in the New York Times Magazine of March 19, 1922 titled “The New Architecture,” in which he predicted that the zoning law would

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be the catalyst for a new formal solution for the New York skyscraper, which would have national significance; Ferriss wanted to create a “new architecture of a civilization.” These drawings had a significant impact on skyscraper design over the next decade. Ferriss’ drawings also appeared in *Pencil Points* in April of 1923, in an article by Harvey Wiley Corbett. In the article, Ferriss created a composite view titled “The Four Stages.” In this illustration, a cityscape with fully developed setback skyscrapers was positioned in the foreground, while tall buildings made up of sharp, steep pyramids were spaced at intervals in the distance, representing earlier stages in skyscraper development since the 1916 zoning law. A similar drawing of the setback skyscraper city was reprinted later in April, where it was captioned: “Architect’s Vision of the Skyscraper of the Future. Soaring Up to 60 Stories, 1000 Feet and Covering a Whole City Block, designed by Helmle and Corbett” (Figure 27). According to Willis, Corbett and Ferriss’ collaboration was beneficial to both. She argues that Ferriss was probably too romantic and grandiloquent to handle making analytical diagrams without Corbett, and Ferriss’ “abstracting eye” gave him a laser focus on simple, essential forms that Corbett lacked. Corbett also used Ferriss drawings in his designs for multi-level traffic systems submitted to a 1923 study on future development in Manhattan sponsored by the committee for a Regional Plan of New York. Corbett served on the architects’ advisory committee, which proposed improvements for traffic

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24 The Russell Sage Foundation created a committee to work towards a regional plan for New York, mostly doing survey work at first, and then, under Thomas Adams, mapped proposals for metropolitan land use and infrastructure development. It was concerned by the later 1920s with the accommodation of future population growth, and in this way contains parallels to the projects I am studying. For more on RPNY, see: *The Plan of New York*, New York: Committee for Private Circulation, 1923. David A. Johnson, “The Emergence of Metropolitan Regionalism: An Analysis of the Regional Plan of New York and Its Environs” (Ph.D. Dissertation, Cornell University, 1974), 26-52, 229-389. See also C. Boyer, 182-185.
circulation, and tried to drum up support for the organization’s efforts. Corbett presented a plan to separate vehicular and pedestrian traffic, and Ferriss prepared a series of four drawings depicting multi-level circulation. Other renderings showed sidewalks raised a story above traffic, bridging the streets and connecting all buildings in a continuous pedestrian promenade, two ideas that Ferriss would adopt as central features in his own ideal city in *Metropolis of Tomorrow* of 1929.

Ferriss also worked closely with Raymond Hood on visionary architectural and urban planning schemes during this period. In a December 1924 article in the New York Times Magazine, Hood, with the help of a Ferriss illustration, published a design for a skyscraper city based on his “City of Needles” project, which had described slender towers rising above a triangular grid of highway intersections covering Manhattan (Figure 28). In 1929, Hood issued another futuristic project, titled “Manhattan 1950,” which combined several earlier experiments. This project contained clusters of skyscrapers stretching across Manhattan, and around twenty “tentacular bridges” that would themselves contain luxury apartment buildings housing up to fifty thousand residents.

Lewis Mumford, then involved with the Regional Planning Association of America (RPAA), did not have positive things to say about Ferriss’ almost

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25 Willis, “Drawing Towards Metropolis,” 160. For the report of this committee, see Regional Plan of New York and its Environs, *Second Progress Report*, February 23 to May 24, 1924. This report did not include the Ferriss renderings, although some photographs of the drawings are located in the Corbett archive at Avery Library, Columbia.

26 See Fig. 15, in Willis, “Drawing Towards Metropolis,” 160. The drawings were published multiple times, including in Corbett, “Different Levels for Foot, Wheel, and Rail,” *American City* 31 (July 1924): 2-6, or Thomas Adams, *The Building of the City, Vol. 2 Regional Plan of New York and Its Environs* (1931), 307.


Corbusian conception of a centralized tower-driven city. Mumford’s 1924 piece “City Planning and the American Precedent,” ostensibly a review of S.D. Adshead, *Town Planning and Town Development*, on British planning, examined older urban prototypes for relevance to modern American cities, and contained an implicit critique of this centralized model of futuristic urbanism. Ferriss’ view of the modern city to Mumford reflected the “morbid, relentless inertia of machine-process,” and its inhuman and irresponsible scale was a manifestation of out-of-control capitalism and corporate greed. While Mumford is correct with regard to Ferriss’ apparent lack of concern for how people actually experience the urban space around them, Ferriss’ drawings nonetheless offered a creative, if largely unrealistic, response to the real congestion problems in New York City.

Willis asserts that Ferriss’ humanism and relative groundedness in the real context of 1920s New York separates him from Le Corbusier. Taken together, she views Ferriss, Corbett, and Hood’s projects as representative examples of a “new conception of the urban future that evolved in the 1920s – a modern metropolis of high density, advanced technology, and centralized planning.” Willis too frequently reads these New York-specific models as the only significant mode of 1920s visionary urbanism, and fails to fully consider the influence of national and international planning discourses. Nonetheless, her analysis of the New York version of “visionary urbanism” provides useful background for the analysis of projects that follow this chapter. Saarinen’s, Neutra’s, and Wright’s plans were all reacting to the urban

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32 Ibid., 80.
34 Willis, “Skyscraper Utopias,” 164.
concentration on display in contemporary New York; all three were interested in a different future city than that projected in Ferriss’ drawings.

In 1923, twenty planners and architects, including Lewis Mumford, Clarence Stein, Benton MacKay, Henry Wright, and Stuart Chase, formed the Regional Planning Association of America. The RPAA was largely driven by a critique of contemporary cities and their problems. In “Dinosaur Cities,” Clarence Stein wrote, “Look at the great city in its entirety: the turbid mass of traffic blocking the streets and avenues, the slow-moving crowd of people clambering into street-cars, elevateds, subways, their arms pinioned to their sides, pushed and packed like cattle in ill-smelling cars, with a mingling of bodies which would be indecent were it not for the suffocation and discomfort that acts, as it were, as a counter irritant.” Stein viewed cars as the primary cause of urban congestion; he argued for a car-free downtown, and pessimistically stated that population pressure on housing stock, utilities, transportation and other infrastructure “are enough to show that the great city, as a place to live and work in, breaks down miserably…” The RPAA’s underlying goal was to design residential environments satisfying every biological and social need, and developed a garden suburb model meant to solve the overcrowding and inadequate infrastructure in New York City. In the small communities of Sunnyside Gardens in Queens (1924) and Radburn, New Jersey (1929), Stein and Henry Wright translated Howard’s and Unwin’s early twentieth-century English garden city theories to machine-age America, incorporating a range of courtyard block housing and single-family homes, pedestrian walkways separate from roadways, and in Radburn’s case, cul-de-sacs (Figure 29). Although the RPAA projects were embedded with an emphasis on efficient circulation for automobile travel and

division of traffic functions that was conceptually related to Saarinen’s designs for Chicago and Detroit, Neutra’s Rush City, and Frank Lloyd Wright’s Broadacres, their small scale and fundamental disconnection from the larger urban plan reflected an overarching interest in limiting growth rather than accommodating it for the future.

These ideas framed the garden suburb plans for Radburn and Sunnyside, both of which were based on Ebenezer Howard and Raymond Unwin’s greenbelted garden city projects in England in the early twentieth century (Figure 30). According to Lewis Mumford, the future of the American city should be dispersed, rather than centralized. In contrast to Saarinen’s Chicago and Detroit, Neutra’s Rush City, or Wright’s Broadacre City, Mumford believed that “regional planning does not mean the planning of big cities beyond their present areas; it means the reinvigoration and rehabilitation of whole regions so that the products of culture and civilization… shall be available to everyone at every point in a region where the physical basis for a cultivated life can be laid down.”

This garden suburb model, according to the RPAA, should involve restricted growth and careful planning. In an article in Harper’s Monthly, Mumford stated a stark choice between “growth by the explicit foundation of new communities fully designed for working, learning and living,” or “growth by ‘mechanical extension’ of the existing city center where the remedies simply added to the disease.”

The RPAA believed that garden suburbs of limited size were more efficient, less wasteful, and ultimately more humanistic conception of community life. Although Wright’s Broadacre City was certainly influenced by

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39 Mumford, “Regions – To Live In,” *The Survey* 54, no. 3 (May 1, 1925): 151-152.


some elements of these garden suburbs, such as the focus on individual homeownership and the dispersal into discrete communities, his designs, as well as Saarinen and Neutra’s, were all vastly different from RPAA-style planning in their retention of the principles of comprehensive urban planning, their focus on high-speed technology, and especially in their emphasis on accommodating future growth.

While New York planners were mostly concerned with how to manage existing congestion of tall buildings in the first three decades of the twentieth century, Chicago planners were consumed in this period with a wholesale re-envisioning of the city’s lakefront. Much more so than their New York brethren, Saarinen, Neutra and Wright’s visionary projects were shaped by the architectural and planning possibilities opened up by this decades-long reconsideration of Chicago’s urban landscape. Since the mid-nineteenth century, the question of lakeshore development had consumed Chicago’s nascent urban planning profession. Running underneath this issue were long-standing conflicts between the city and the railroad companies that dominated the shoreline, and more generally, between those who favored private business development and those favoring the construction of grand new public spaces. In the 1850s and 1860s the lakefront was thought to hold little value, and the railroad companies agreed to pay for lakefront protective features like dykes and breakwaters in exchange for the land that would allow them to conveniently run freight and passenger lines into Chicago’s downtown business district. However, as the city’s population exploded and traffic jams became rampant by the 1890s, the lakefront became the subject of several legal battles that eventually resulted in an


1894 Supreme Court decision refuting the Illinois Central Railroad’s claim of lakefront development rights. The city’s legal victory over the Illinois Central was seen by many planners as a triumph of the public interest, a triumph that would fortify many proposals for land reclamation, transportation, and new public spaces along the water around the turn of the century. Among many other ideas, some of these proposals included a cultural center and promenade plan by the Municipal Improvement League in 1895, and a plan for a music pavilion and formal park system by the Chicago Architectural Club in 1896.

In 1909, Daniel Burnham and Edward Bennett published a comprehensive urban plan that proposed filling in the lakeshore with parkland, and creating a monumental center for museums and civic buildings (Figure 31). The civic center, described in a chapter titled “The Heart of Chicago,” comprised an expanded Art Institute, the Field Museum, and a library, connected by a broad axial boulevard to a monumental government administration building at the corner of Halsted and Congress. Recreational spaces on piers would extend into Lake Michigan, shifting, as Daniel Bluestone put it, “the visual balance of central Chicago from private to public, from the business domain to the civic realm.” For the Loop itself, the 1909 plan called for an ambitious system of street widenings and diagonal arteries radiating through

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44 Proponents hoped to rid the shoreline of the Illinois Central tracks that covered the area, and enlarge the lakefront with landfill to a point 1200 feet east of the existing Chicago shoreline. For some examples of the debate, see: “Too Hasty Action by County Board,” Inland Architect 25 (October, 1894), 21; and Chicago Tribune 30 December 1894. Cited in Bluestone, “The Keystone of the Arch,” 187. See also Brumley, “Some Phases,” 331-332 for more on the various park and rail improvement proposals up to the 1920s.

45 All of these plans called for neoclassical buildings set within plazas and picturesque landscape designs. See: Inter Ocean, 10 August 1895. See also “Chicago Architectural Club,” Inland Architect 27 (February 1896): 8; See also Bluestone, “The Keystone of the Arch,” 187-188.


47 See: Burnham and Bennett, Plan of Chicago, 100.

the urban grid (Figure 32). Burnham appears interested primarily in the vistas that these long avenues presented, although they could also be relevant to automobile transportation. In the plan, Burnham wrote, “There is true glory in mere length, in vistas longer than the eye can reach, in roads of arrow-like purpose that are unswerving in their flight.” Clay McShane argues that even though Burnham almost completely neglected the issue, the roadways were clearly built for cars; many of them are eight lanes wide and prohibit street trolleys and sometimes trucks. Jules Guerin’s illustrations accompanying Burnham’s plan similarly ignore the reality of actual traffic or public transportation in the Loop, showing instead virtually empty streets (Figure 33). As evidenced by the level of specificity given to public monuments and spaces in comparison to urban infrastructure, it is clear that Burnham and Bennett to a large extent favored aesthetics over practical concerns. Even so, the architects themselves and the Commercial Club of Chicago continued to note the utilitarian aspects of the plan, especially as it related to mitigating urban congestion and making traffic more efficient via its proposed roadway, rail and park systems.

Burnham and Bennett drew on European models in their design. They looked to Haussmannian Paris for that city’s development of “great spaces in order to disengage monuments of beauty and historic interest,” and to Germany for the manner in which planners

49 Clay McShane argues this point in: Along the Asphalt Path, 211.
50 Burnham, Plan of Chicago, 89.
there were interested in “creating about a monumental structure free room for the beholder to see the essential parts of the building.” Burnham and Bennett also called on American precedent, incorporating the historicist styles and the regulated cornice-heights of the 1893 Columbian Exposition buildings, as well as the planning principles Burnham had contributed to the McMillan Plan for Washington, DC. By looking to these examples, cities filled with neoclassical monuments placed in highly dramatic visual settings, Burnham and Bennett indicated their desire to establish new civic values for the modern American city. The 1909 plan for Chicago in this way was emblematic of the so-called City Beautiful planning movement, a movement rooted in the moralizing belief in the power of aesthetically-pleasing urban spaces to affect civic consciousness. Civic and cultural buildings were closely coordinated with one another and to spaces in between them, and these monumental groupings were set apart from those dedicated to commerce. The impact of the entire central civic and cultural landscape was supposed to come from its harmonious patterns and relationships between buildings, the whole appearing greater than the sum of its individual parts.

Although Daniel Bluestone emphasized the City Beautiful civic center as the “keystone of the arch,” i.e. the central structural feature of the plan, he also agreed with Carl W. Condit and Cynthia Field, among others, in their view of the Chicago plan as representing a “unity” between

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the central city and the entire metropolitan region. Long before the twentieth century, links between downtown and the suburbs, between commercial areas and residential ones, and between road, canal, and railroad systems, underpinned Chicago’s development. Indeed, the regional scope of the 1909 plan was based in part on the extensive proposals for roads along the lakeshore as far back as the 1870s. The 1909 plan for Chicago by Burnham and Bennett was extremely influential on architects on both sides of the Atlantic; even as it looked backward in some ways to Haussmann’s Paris, the plan’s massive scale and its broad concern for resolving the twentieth-century infrastructure problems within Chicago’s Loop that were most significant to Wright, Neutra and Saarinen. All three architects arrived in Chicago at moments of remarkable change to the lakefront landscape, Wright first at the turn of the century, and then Saarinen and Neutra in the early 1920s. During each of these periods, conversations about lakefront development filled contemporary architecture, engineering, and planning journals, and the evidence indicates that all three were deeply engaged in American planning issues of this kind. For Saarinen in particular, the regional conception of the city made visible by the 1909 plan served as a crucial model for his own 1923-1924 plans for Chicago and Detroit. As will be described in Chapter 3, Saarinen’s plans show that the architect was not only engaged with Burnham and Bennett’s plan, but also with the full gamut of planning debates over transportation planning and public space on the lakefront.

In Chicago, two longstanding infrastructure issues came to a head during the 1920s, the problem of how to manage the railroad situation along the lakeshore, and the problem of automobile traffic downtown. From the time the Burnham Plan was proposed in 1909, Chicago

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engineers, municipal government, and developers dreamed of new ways to manage the multitude of complicated rail lines entering the prime real estate downtown. After much debate over costs and property development rights, in 1919 a city ordinance was passed calling for the electrification of the Illinois Central Railroad, providing for more subways and viaducts, and forcing the railway company itself to make extensive utility infrastructure improvements. In return for helping the city with further landfill development along the shoreline, the railroad gained the right to run on tracks depressed below street level into downtown.⁵⁸ This complex negotiation between the city, business developers, and the railroads, and resulting space opened for development provided a critical piece of groundwork for the later parks and highway infrastructure in Chicago.⁵⁹ Electrification was an issue much debated in contemporary engineering journals, primarily for its ability to reduce the pollution downtown, make the train system more efficient, and allow for public space to rise over them.⁶⁰ The electrification itself was finally completed in 1926 with much celebration, even though the automobile problem was proving to be an even bigger concern for Chicago planners.⁶¹ These drastic shifts in the landscape of Chicago and its urban infrastructure, already underway in the early 1920s, occurred simultaneous with Saarinen’s first visit to the city on the occasion of the Chicago Tribune Tower competition.

The dispute over the rail lines along Chicago’s shoreline, and discussion about the future development of both the lakefront and the area north of the Chicago River were just a few of several factors underlying the competition in 1922 for a new headquarters for the Chicago

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⁶¹ The Illinois Central Records at the Newberry Library have many news clippings related to the Illinois Central electrification, especially the celebration on August 7-8, 1926.
This competition inspired proposals from a range of contemporary American and foreign architects, including Bertram Goodhue, Walter Gropius, and Adolf Loos, among many others (Figures 34 and 35). Chapter 3 on Eliel Saarinen will discuss the Finnish architect’s much-lauded second place entry to the competition, and make clear how this submission connects to his subsequent visionary plan for downtown Chicago (Figure 36). Both projects reflect a deeper engagement with local and national urban planning issues than has typically been described in the scholarly literature on Saarinen. Yet the Tribune Tower competition should also be understood within the broader discourses of American urban planning that impacted all three of the architects in this study.

Far from being simply an isolated design problem, the Tribune Tower was intended to be one piece of a large-scale development project connecting Michigan Avenue to the River North area. For the newspaper, the primary goal of the competition was to enhance the value of its corporate brand; they hoped that it would generate publicity, increase daily circulation, and, ultimately, as Katherine Solomon put it, “turn the Tribune into an icon.” Solomonson wrote the definitive book on the competition, focusing on how the choice of the Gothic-styled winning design by the firm of Howells and Hood over more modernist submissions reflected a complex sentiment about American cultural identity in the 1920s (Figure 37). In the period just after World War I, the Tribune may have looked to the Gothic style to make a statement about the strength of Chicago as a global, cosmopolitan city on par with New York or Paris.

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64 Ibid., 157-158.
The Tribune decided to locate its new building on a property just north of the river and Chicago’s central business district. The proposed site had once been part of the “Sands,” one of several shantytowns that had sprung up. By the early twentieth century the area saw much more commercial and residential development and was the focus of a so-called “boulevard link” across the river mentioned in Burnham and Bennett’s 1909 Chicago plan. Over the course of the 1910s, the Chicago Plan Commission had vigorously advocated for the implementation of this link, which was imagined as a broad avenue stretching northward from the Art Institute. Voters eventually passed a bond issue, and construction began on a double-decked bridge, designed by Edward Bennett and the engineer Thomas G. Pihlfeldt, connecting Michigan Avenue and Pine St in 1918, which was subsequently widened and turned into North Michigan Avenue (Figure 38). The Tribune Tower was to be situated on one side of a new Michigan Avenue Bridge Plaza, another key idea of the 1909 plan for the north side of the river. The goal of these projects was efficient movement of traffic within the city, and this high-speed image of Chicago thus projected in the choice of location for the Tribune Tower is yet another reflection of this general turn towards visionary urban experimentation in 1920s Chicago, even if the winning design looked primarily to historical forms.

Although the competition program itself gave no indication of either the site’s role in the Chicago plan, or the proposals for the bridge plaza and the new North Michigan Avenue that the newspaper had fully supported over the preceding years, these issues were highly publicized both

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within Chicago and in well-known American architecture journals.\textsuperscript{69} The \textit{Tribune} emphasized instead the proposed building’s unique individuality, and independence from the city’s broader plans for the River North area; this could account in part for the tendency of many submissions to read as singular structures instead of pieces of a larger system.\textsuperscript{70} One Tribune Tower design that did take site into consideration, at least minimally, was Eliel Saarinen’s, which was widely admired at the time, most significantly by Louis Sullivan. Although Sullivan mostly focused on the stylistic aspects of the design, what Saarinen understood better than most was the tower’s urban context, that it was part of an integrated vision for a less congested and more efficiently planned downtown business district.

It was already obvious to many planners and architects, including Saarinen, that automobile traffic and storage were significant problems in Chicago, and promoting public transportation in the elevated subways rather than surface streetcars did little to improve the issue. Hugh E. Young commented on the issue in his 1923 article, “Day and Night Storage,” which discussed parking problems in downtown Chicago and proposed various policies meant to ease traffic flow.\textsuperscript{71} Young suggested limiting parking on narrow streets, restricting parking in the entire Loop area to thirty minutes, and “provid[ing] parking space in the central business district by means of multiple floor garages, preferably of the ramp design, when other suitable spaces are not available or appear to be inadequate to meet future needs.”\textsuperscript{72} In 1920, the Chicago Association of Commerce and other business groups had even advocated a complete parking ban.

\textsuperscript{69} \textit{American Architect} emphasized the site’s significance and the opportunities it presented to architects ‘for the placing of a monumental building, commanding long vistas.’ “Editorial Comment,” \textit{American Architect} 121 (June 21, 1922): 512. Also \textit{Architecture} 46 (July 1922): 215; “$100,000 Prize Competition,” \textit{Pencil Points} 3 (July 1922): 32; and “The Chicago Tribune Competition,” \textit{American Architect} 121 (June 21, 1922): 543.

\textsuperscript{70} John Stamper has discussed how the \textit{Tribune} conceived of its building in isolation from the proposals for North Michigan Avenue: see Stamper, \textit{Chicago’s North Michigan Avenue}, 67.

\textsuperscript{71} Hugh E. Young, “Day and Night Storage,” \textit{American City} 29, no. 7 (July 1923): 44-45.

\textsuperscript{72} Ibid., 45.
downtown, favoring instead off-street parking garages paid for by the city.\textsuperscript{73} The no-parking ordinance was passed by the city council, but under enormous opposition the mayor eventually vetoed it. When looking at Saarinen’s project designs for a monumental civic center in downtown Chicago, with its massively over-scaled parking garages for 40,000 cars, one can’t help but think about the contemporary debates over car storage that filled Chicago’s newspapers and planning journals in the first part of the 1920s. As Chapter 3 will show, Saarinen’s Chicago garage designs clearly reflect the architect’s awareness of contemporary problems of Chicago planning. Though he probably knew of Burnham’s earlier plan for the city via translations and his interactions with European planners during the previous decade, it was the Tribune Tower competition that highlighted an opportunity within American urbanism to continue his work designing plans that would serve the needs of the future city.

By the late 1920s, planners in Chicago turned their attention to road improvements and highway building, often using concepts like grade separation and division of local- and through-traffic picked up from the early New York parkway system.\textsuperscript{74} The pressure automobile traffic put on Chicago’s thoroughfares became a widespread concern, and experiments were already underway in street widening and double decking, such as on Wacker Drive, situated along the Chicago River on the north side of the Loop. However, planners increasingly focused on urban highways, roads that would allow for nonstop movement within the city.\textsuperscript{75} The prototype of this

\textsuperscript{73} On the support for a parking ban, see Chicago Daily News, Sept. 20, Nov. 18, 1920; Business opposition to parking restriction is described by CPC engineer Hugh E. Young in “Day and Night Storage and Parking of Motor Vehicles,” American City 29, no. 7 (July 1923): 44-45. See also Barrett, The Automobile and Urban Transit, 135.

\textsuperscript{74} Eugene S. Taylor, “Chicago’s Superhighway Plan,” National Municipal Review 18, no. 6 (June 1929): 393; George A. Damon, “The Influence of the Automobile on Regional Transportation Planning,” American Society of Civil Engineers, Transactions 88 (1925): 1132. For more, see “Attacking the Traffic Problem,” American City 137, no. 22 (June 18, 1924): 257; Harland Bartholomew in Arthur S. Tuttle, “Increasing the Capacity of Existing Streets,” in American Society of Civil Engineers, Transactions 88 (1925): 238-239; Burnham and Bennett, Plan of Chicago, 92-94.

model was an expressway along the city’s lakefront, the so-called “Outer Drive,” already under
development in the late 1920s. In 1929, the Chicago Plan Commission developed another
proposal, for an Avondale Avenue “superhighway” stretching to the northwest suburbs from
downtown Chicago. This plan was published in several national journals. According to Hugh E.
Young in 1928, the highway was to provide a 210-foot wide thoroughfare paralleling the railroad
tracks. Eugene S. Taylor described contemporary traffic and the road situation in Chicago’s
central business district: 175,000 cars entered the CBD every day, with another 80-90,000
entering the surrounding city. Three hundred miles of paved roads converged on a town just
outside of the Chicago city limits, but there was no direct, efficient way to travel into downtown,
a problem that the Avondale highway was meant to solve, running about ten miles into the Loop.
For the last mile of the design the roadway was actually elevated directly over the railroad tracks
rather than next to them. This emphasis on high-speed transportation, the separation of traffic
types and multi-level form, as seen in the illustrations in Young’s article, are clearly relevant to
Frank Lloyd Wright’s Broadacre City highway designs. Wright’s longstanding interest in
urbanism and his knowledge of Chicago’s planning problems throughout the decade makes it
likely that he was aware of the Avondale and other highway plans.

In comparison to New York City and Chicago, in Los Angeles during the first three
decades of the twentieth century planners were consumed with this question of regional planning

Commission, West Side Superhighways (Chicago, 1929), 21; “A Chicago Traffic Problem Solved by a Weekend
Job,” American City 45, no. 12 (December 31, 1931): 756.
Taylor, The Outer Drive Along the Lake Front (Chicago, 1929), 27. Miller McClintock, Report and
Recommendations of the Metropolitan Street Traffic Survey Commission of the Chicago Association of Commerce
(Chicago, 1926), 125-126; “Street Traffic Control,” American City, 28, no. 2 (Feb 1923): 215; C.E. DeLeuw, “Street
Traffic Control,” JWSE 34, no. 9 (Sept 1929): 506; on a similar plan in Detroit, see Foster, From Streetcar to
Superhighway, 78-80.
Hugh E. Young, “Ten Mile, $60 Million Express Motor Highway Proposed for Chicago,” American City 38, no. 3
(March 1928), 91.
Ibid., 373-374.
on a much vaster scale. The question was made urgent because of L.A.’s far more recent
economic development and dramatic population explosion between 1900 and 1920. An aqueduct
from the Owens Valley that finally provided reliable water supply for the city, and the
construction of a new Port of Los Angeles twenty miles south of downtown, added to the city’s
economic fortunes and encouraged growth into outlying areas.\footnote{Martin Wachs, “Automobiles, Transport, and the Sprawl of Los Angeles,” \textit{Journal of the American Planning Association} 50 (1984): 302.} During the first two decades of
the twentieth century, the population of the Los Angeles metro area grew from approximately
100,000 to 576,000 residents.\footnote{Scott, American City Planning, 185.} Richard Neutra and Frank Lloyd Wright in particular were
inspired by the city’s rapidly changing urban landscape, which from the very start was highly
decentralized, and had a much lower population density than eastern American cities.\footnote{Re: low population density in relation to other cities, see: Bottles, \textit{Los Angeles and the Automobile}, 5. On its
economic decentralization, see Bottles, 14-15. See also: Jackson, \textit{Crabgrass Frontier}, 14.} Commercial districts developed in suburban neighborhoods along the street railway lines, and
with the invention and refinement of truck transportation, manufacturing and industrial
production grew on the city’s periphery.\footnote{Bottles, \textit{Los Angeles and the Automobile}, 194-197.} On the residential side, southern California, with its
predominantly single-family suburban lifestyle, was already viewed by many as an escape from
the misery of urban life in eastern cities like New York and Chicago.\footnote{Ibid., 178-180.}

Kenneth Jackson’s reconsideration of suburbanization, mentioned earlier, is equally
applicable to Los Angeles as in other American cities; Reyner Banham, Mark S. Foster, and
Robert M. Fogelson have all additionally pointed out that in southern California specifically,
there was an impulse towards decentralization evident well before the 1920s. Banham and
Fogelson connect the city’s pattern of decentralization to the expansion of its intra- and inter-
urban railway systems from the 1870s through the early twentieth century. L.A.’s low-density expansion informed every aspect of urban planning, and was the basis for the major planning problem of the period: how to make a city work efficiently over a widespread area. In contrast to German and Austrian conceptions of planned decentralization, the decentralized American city of the early twentieth century, especially those in the West, arose rather more haphazardly.

Over the course of the 1920s, Los Angeles was the fastest growing city in America, due primarily to availability of cheap land, additional improvements to the port, a huge growth in the manufacturing sector, and better transportation and telecommunication infrastructure (Figures 39 and 40). Decentralization was embraced as a way of life in southern California. The dynamic energy of horizontal regional expansion in the 1920s, as well as the widespread domination of the automobile over other methods of intra-urban transportation, informed the core of Neutra and Wright’s visionary projects for Rush City and Broadacres. Then there was the real estate boom that occurred throughout the same period, mostly away from the streetcar lines that had dictated previous growth. According to developer subdivision maps filed with the city of Los Angeles, the number of new subdivisions opened each year almost quadrupled, from around 346 in 1920 to a peak of 1,434 in 1923. By 1930, Los Angeles led the nation’s cities in the percentage of its housing stock made up of single-family homes, an astounding 93.7 percent, compared to around

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86 Bottles, Los Angeles and the Automobile, 20. See also: City Club of Los Angeles, “Report on Rapid Transit,” City Club Bulletin (January 30, 1926): supplement, and also Foster, From Streetcar to Superhighway, 42 for a discussion of American urban planners and their attitudes toward decentralization.

87 Bottles, 177. See also See U.S. Dept of Commerce, Bureau of the Census, Fifteenth Census: Volume I, 18-19 for a statistics on how L.A.’s 114% population growth during this period outstripped every other major American city, including its closest competitor, Detroit at 57%.

88 Bottles, Los Angeles and the Automobile, 181, 184-185.

89 The number declined from this peak over the course of the late 1920s, to a low of 92 in 1931. Cited in Foster, “The Model-T,” 474.
53 percent or less in NYC, Boston and Chicago. For the public, automobiles provided an efficient, individualized transportation option to spacious suburban homes, and were a key factor in the continued dominance of single-family residential construction in Los Angeles. In a marked contrast to New York in the 1910s, city governments and urban planners themselves viewed horizontal, not vertical, growth as a positive force, the only viable solution to the increasingly dire problems of urban congestion that had arisen with the city’s population growth and the rise of private automobile ownership.

Los Angeles’ public transportation system, run largely by private streetcar corporations, had fallen out of favor among local residents during the 1920s, and, encouraged by car-friendly policies and an active lobby by the oil industry and the Southern California Automobile Club, they quickly adopted automobiles. Both the people and the planners of L.A. apparently believed the car would solve vehicular congestion and improve quality of life. Los Angeles’ mild climate, housing stock with plenty of car storage space, and comparatively affluent residents all contributed to a significant increase in automobile usage in comparison to the older cities of the Midwest and East Coast. In 1919, an article in *Scientific American* discussing patterns of car ownership in the United States noted that California led the nation in per capita automobile ownership. The article stated, “California has 2,000 more vehicles than Pennsylvania, and leads seven other states which are credited with greater population. We find, then, that the banner is to

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90 See: U.S. Bureau of the Census 1930, 450-451, and U.S. Bureau of the Census 1930, 77. L.A.’s population density was also much lower, at around 6,000 people per square mile, while New York, Boston, and Chicago had around 23,000, 18,000, and 17,000 per square mile, respectively. Cited in Wachs, “Automobiles, Transport, and the Sprawl of Los Angeles,” 309.

91 Wachs and Bottles attribute these factors to local preferences for low density living, as well as Los Angeles’ image as a healthy, new city standing in contrast to the overcrowded cities of America’s East Coast. See Wachs, “Automobiles, Transport, and the Sprawl of Los Angeles,” 297-301.


be awarded to California, with her perpetual summer, her tourist industry, and her wonderful roads.”95 Over the next decade, the reliance on cars as the primary means of transportation in Los Angeles solidified. Whereas in 1920, LA already had the highest ratio of cars per capita of any large city in the US, at about one for every nine people, by the end of the 1920s, there was approximately one automobile for every three people.96 Although the interurban railways and harbor improvements had initially inspired the area’s horizontal development, the real estate boom and the car’s mass popularization combined to create a highly decentralized yet coherent urban culture by 1930.97

As in other cities, however, the rise in car ownership proved problematic for L.A.’s downtown districts. Both city and county population continued to rise throughout the 1920s, and, according to a study completed in the early 1930s, more than twice as many cars entered the Los Angeles central business district each day than in Chicago, even though the city’s downtown devoted a much smaller percentage area to streets than other major cities.98 L.A.’s planning problems were well publicized in newspapers and urban planning journals during the 1920s, with critics debating what many saw as the worst traffic of any major American city.99

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95 “Automobiles and People,” *Scientific American* 121, no. 26 (December 27, 1919).
97 Foster, “The Model-T,” 484.
98 Donald M. Baker, “A Rapid Transit System for Los Angeles, California; A Report to the Central Business District Association, November 15, 1933,” 36-39. According to the report, 277,000 cars entered the CBD of LA over a 12-hour period in 1931, in comparison to 113,000 in Chicago, 66,000 in Boston, and 49,000 in St. Louis. Baker says that only 21.4 percent of L.A.’s downtown area was dedicated to streets, compared to figures ranging from 29-44 percent for other large American cities.
The municipal government proposed several solutions. Just like in Chicago, Los Angeles’ city council first attempted to deal with urban automobile traffic by banning parking downtown outright in April 1920. Two weeks later, after outrage over economic losses and inconvenience from local businesses and the public, the ban was rescinded and altered; parking would only be restricted between 4 and 6pm.¹⁰⁰ Beginning in 1922, the Los Angeles Traffic Commission proposed fewer limitations on parking, and promoted instead improvements like street widening and additional traffic lights.¹⁰¹ Some critics believed that the car itself could provide the solution, even if it was also part of the problem. George A. Damon, the Vice-Chairman of Los Angeles County Regional Planning Commission, for example, argued that the car was a positive development for urban planning, because it “furnishes the means to escape” downtown.¹⁰² For Damon, decentralization was the answer.

These relatively small-scale experiments eventually resulted in a comprehensive report published by the Traffic Commission and the Automobile Club of Southern California in 1925 as the Major Traffic Street Plan for Los Angeles (Figures 41 and 42).¹⁰³ The plan was designed by Frederick Law Olmsted, Jr., Harland Bartholomew, and Charles H. Cheney, and called for a holistic approach to improving the street system of Los Angeles. The planners argued for the widening, extension, and straightening of various streets, as well as for a new network of major thoroughfares. The plan also proposed the first continuous grade-separated parkway, similar to those already in development in New York. This parkway would connect Pasadena to L.A.’s central business district. The parkway was eventually built and incorporated into the larger

¹⁰² Damon, “The Influence of the Automobile on Regional Transportation Planning,” 1138.
southern California freeway system by 1940.104 The Major Traffic Street Plan’s suggestion of funding mechanisms for the construction of highways in peripheral areas of the city indicates, according to Mark Foster, an implicit endorsement of the principles of decentralization at the expense of the central business district.105 Street access and efficiency for automobiles throughout the city greatly improved under this plan, yet it also exaggerated economic deconcentration as downtown became saturated with vehicular traffic. Even so, several aspects of the Street Traffic Plan reflected contemporary reality, including recognition of the car’s popularity, planners’ general acceptance of this new transportation technology, and the resulting dispersal of residential and commercial development.

Other elements of the Major Traffic Street Plan created precedents for the large-scale regional freeway system more fully developed in the 1940s, including the separation of different categories of through-traffic or local traffic from one another, and the separation of streetcars from automobile traffic. There were underpasses and viaducts proposed at busy intersections that would facilitate traffic traveling in different directions, as well as a design for an elevated highway.106 The immediate implementation of the plan had primarily small-scale results, with the street improvements taking priority over more innovative ideas. Nevertheless, features of the Major Traffic Street Plan’s program like street widening, artery connection, and highway development projects did get underway by the end of the decade, even if the vision of an integrated regional road system was not entirely made a reality.107

The plans propagated in 1925 seem to contain several formal and conceptual elements evident in Neutra’s Rush City Reformed and Frank Lloyd Wright’s Broadacre City. By 1930, the

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105 Foster, “The Model-T,” 471.
urban landscape of Los Angeles was vastly different than it had been ten years earlier. Although Mel Scott has argued that the opportunity for a truly comprehensive urban plan was lost because of land grabs made by private developers when municipal government failed to act, the incredible physical and conceptual shifts relating to transportation infrastructure, and the debates surrounding it in the popular media and planning periodicals during the 1920s, proved highly influential on the architects of this study.\textsuperscript{108} Indeed, by the time the comprehensive reports were published in the middle part of the decade, Neutra had already arrived in Los Angeles, fully engaged with issues of American urbanism from his time spent in the Chicago. Wright too had already been to L.A. several times by the early 1920s while monitoring various projects like the Hollyhock, Millard, and Ennis Houses. Neutra’s and Wright’s visionary proposals for Rush City and Broadacre City, as explained in Chapters 4 and 5, reveal a clear and continued interest in the urban planning discourses of southern California.

In all three of the cities discussed in this chapter, this moment of dramatic change in infrastructure caused in large part by the popularization of automobiles proved quite instrumental to architects investigating urbanism. As this chapter has shown, however, other factors in American urban planning history that predated the car also likely contributed to Neutra, Saarinen and especially Wright’s turn towards a visionary, futuristic, model. The American utopian tradition, the history of large-scale engineering and skyscraper projects in New York, and Chicago’s 1893 Columbian Exposition and Burnham’s 1909 plan were all published around the world in the early part of the twentieth century. Finally, the three architects’ first- and second-hand experiences with New York, Chicago, and Los Angeles, which will be examined in greater depth in later chapters, inspired in each of them a set of common impulses, even as their specific formal solutions diverged. Each architect was captivated by New York’s vertical, canyon-like

\textsuperscript{108} Scott, American City Planning, 209-210.
urban landscape and overcrowded atmosphere, but for Saarinen, Neutra and Wright, Chicago and Los Angeles’ decades-long development projects for the lakefront and suburbs provided more appropriate blank canvases for their experiments in high-speed horizontality. Rather than the small-scale and relatively restrictive plans for garden suburbs, or the completely fantastic and decontextualized ideas of Ferriss and Corbett, Saarinen, Neutra and Wright developed a far more specific type of visionary urbanism. Their plans were highly attuned to the attitude of expansive growth that characterized the urban planning debates in Chicago and Los Angeles in the 1920s.
CHAPTER 3

Eliel Saarinen’s Plans for Chicago and Detroit

Eliel Saarinen designed several plans for capital cities around the world in the 1910s, and on arriving in the United States, created two more, one for Chicago in 1923 and one for Detroit in 1924. These latter two projects, though widely published in architectural journals at the time, have been considerably minimized by later scholars and never fully contextualized within either Saarinen’s own career or the history of American urban planning, especially in English. Instead, Saarinen has been highlighted in architectural history for his early Finnish buildings like his house at Hvittrask (1901-1903) and the Helsinki Train Station (1909), for his submission to the 1922 Tribune Tower competition in Chicago, and for his design of several buildings on the campus of the Cranbrook Academy in Michigan when he was director of the art school there from the late 1920s to the 1940s.¹

Saarinen’s plans for Chicago and Detroit have too often been described as minor postscripts to his international urban planning phase of the 1910s, or as purely hypothetical exceptions to his later, more Arts and Crafts-oriented American design projects. Based on a reconsideration of Saarinen’s plans, writings, and especially his under-examined Michigan archive, this chapter will position these two plans as key solutions to the already obvious, uniquely American problem of automobile traffic circulation and urban congestion. The archive at Cranbrook contains a far-reaching series of documents and correspondence that reveal Saarinen’s important position within the American urban planning world during the 1920s and

1930s that has thus far been almost entirely neglected in studies of his work. Although Saarinen’s earlier European designs attempted to expand the size of constrained cities outward through decentralized suburbs and regional train and road networks, his Chicago and Detroit projects were meant to go much further in their recognition of modern automobile technology and its effect on existing city centers. While never turning into utopianism, Saarinen created plans for the future American city that called on Central European models for accommodating metropolitan growth and simultaneously anticipated by decades many of the changes to the urban core instigated by car culture.

There are only a few comprehensive books in English on Eliel Saarinen’s life and work, one a definitive biography written by Albert Christ-Janer in 1948 that incorporated personal interviews and archival material, another a translated Finnish monograph from 1990 covering only his career through 1923. A 1983 exhibition on the Cranbrook Academy of Art, Design in America: The Cranbrook Vision, 1925-1950 resulted in a thorough catalog covering the institution’s history and wide impact on American design, but contained only one chapter by David De Long assessing Saarinen’s architectural career. Despite the prominence of Saarinen in the Finnish and American architectural press for over forty years, and Saarinen’s own prolific publishing habits, his work has remained mostly outside the mainstream of the literature on modern architecture. This undoubtedly has something to do with its lack of affinity with the “International Style” architectural aesthetic promoted by Henry-Russell Hitchcock and Philip Johnson beginning in the late 1920s and dominant for decades after.

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Indeed, the scholarship that does examine Saarinen’s career historically has tended to overemphasize the very aspects of Saarinen’s work that differentiate it from mainstream modernism’s focus on technology, industrial production, and rational planning. Particularly in relation to Saarinen’s urban plans, this overemphasis on the organic has typically been accomplished through analysis of the influence on Saarinen of the Viennese planner Camillo Sitte and the English Garden City Movement. Chapter 1 argued that Sitte’s impact was rather different from the traditional interpretation. While not discounting the theme of organicism that runs through many of Saarinen’s projects, and which he discussed in detail in *The City*, this chapter will examine some of the styles and conceptual frameworks from which Saarinen drew, and the technologically advanced proposals he incorporated into his urban plans around the world. Ultimately, Saarinen desired in his work to understand the future city, and to design solutions to problems like traffic circulation, road design, and vehicle storage that would accompany its inevitable rise in population.

Eliel Saarinen was born in 1873 and educated at the Helsinki University of Technology. By 1896 he partnered with Hermann Gesellius and Armas Lindgren to design works like the Finnish pavilion for the 1900 Paris Universal Exposition, the Hvittrask house, and the National Museum of Finland, all in the Scandinavian regional style termed “National Romanticism,” which integrated traditional Finnish wooden architecture with elements of the Gothic Revival and international Art Nouveau movements. The firm disbanded around 1905, and Saarinen embarked on several monumental schemes that give insight to the architect’s shift towards urban planning a few years later. The most important of these was his design for the Helsinki central railway station. After Saarinen won the competition in 1904, he and his wife Loja traveled

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throughout Europe to view contemporary solutions to this most modern of design problems, the urban train station. The Saarinens went to England, Scotland, and Germany, where the architect was especially inspired by the functional considerations and integration of railway infrastructure within the city found in J.W. Schwedler’s 1888 terminal in Frankfurt-am-Main.\(^\text{5}\) Saarinen developed two iterations of this design. The first, dating from 1904, was designed in a medievalist, National Romantic style that was vastly more monumental (and costly) than was then practical or acceptable to the commission. Christ-Janer relates that Saarinen in this first plan “envisioned the future service of the station in modern times and decided that it should be large enough to accommodate the shops which are, today, a part of every well-conceived terminal.”\(^\text{6}\)

As the terminal was constructed over the next ten years, Saarinen made modifications resulting in a smaller, and more stripped down, Vienna Secession-style building which received much acclaim (Figure 43).\(^\text{7}\) Whatever the stylistic changes that occurred, it is clear that Saarinen was keenly attuned to how the terminal would engage with the city at large, both in the services it would provide to the public and the interrelationships formed between the myriad regional rail lines entering the city and Helsinki’s existing transportation network. This interest in infrastructure planning points the way toward his future urban designs in Europe and America.

While the Helsinki Railway and other projects were underway from around 1907-1910, Saarinen traveled extensively throughout Europe, often with his wife or colleagues. These travels and the relationships he built provide crucial context for his growing awareness of Central European design trends and his subsequent shift towards urban planning. In 1907, for example, the Saarinens traveled through France, Switzerland, Austria and Germany after delivering his project for the Palace of Peace competition at The Hague in the Netherlands. During this trip in

\(^{\text{5}}\) Christ-Janer, *Eliel Saarinen*, 34.
\(^{\text{6}}\) Ibid.
\(^{\text{7}}\) Ibid. See also the extensive list of reviews and other publications in Hausen’s project index.
Germany, Saarinen met Josef Olbrich at Darmstadt and Peter Behrens in Dusseldorf. In 1908 and 1909 Saarinen was invited to participate in the International Building Convention in Vienna and the grosse Kunste-Ausstellung international art exhibition in Berlin, events which coincided with the ongoing Competition for Greater Berlin and other well-publicized urban design conversations mentioned in Chapter 1.

At the same time, his home in Hvittrask became something of a destination for a wide variety of Central European and Scandinavian artists, architects and cultural figures. In 1907, the Viennese composer and orchestra director Gustav Mahler visited Hvittrask while giving a concert in Helsinki, the Finnish artist and Saarinen’s longtime friend Akseli Gallen-Kallela frequently visited, and in 1910 the German critic Julius Meier-Graefe stayed for an extended holiday, apparently working on his Cézanne book during his stay. This documentation of Saarinen’s travels and houseguests makes obvious his increasing renown during this period, and present the possibility for patterns of influence between Scandinavia and Central Europe that have been left largely unexamined in the discourses of early twentieth-century modern architecture.

As the Helsinki railway terminal project and his travels during the first decade of the twentieth century show, Saarinen’s more direct focus on urban planning from around 1910 did not emerge in a vacuum. In fact, Saarinen’s turn towards the city at large coincided with a worldwide search for solutions to urban problems. Among the Scandinavian design community at the turn of the twentieth century, Finland had an especially active press through which the most current European and American architecture and urban planning trends were publicized.

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8 The following dates were collected from interviews with Saarinen: Christ-Janer, Eliel Saarinen, 135-139.
9 See the timeline in Christ-Janer, Eliel Saarinen, 135-139.
10 Lane, National Romanticism is the primary example of a book that does take these connections into consideration, though much more remains to be done on this topic.
Saarinen was quite likely aware of many of these trends, especially those emerging from the Viennese, English, and American contexts. Finnish architects paid particular attention to Camillo Sitte’s urban planning ideas explained in his 1889 treatise *Town Building According to Artistic Principles.* The ideas Sitte promoted in his book reached a wide public in Scandinavia through an 1898 article written by Lars Sonck in the journal *Finsk Tidskrift,* titled “Modern Vandalism.” As described earlier, Sitte promoted an aesthetic theory of urban planning characterized by the integration of monuments and urban spaces into an organic, efficient, whole, rather than on the definition of isolated, unrelated buildings. Sitte encouraged the design of aesthetically pleasing spaces linked through circulation of pedestrian and carriage traffic. In addition to the possible influence of his picturesque concept of the city, Saarinen followed the model of architects like Otto Wagner in looking to Sitte for a forward-thinking consideration of transportation efficiency. Later in his career, Saarinen would remark on this very issue, stating to Christ-Janer, “[Sitte’s] message was fundamental in that it used history to point out the need for meeting the contemporary problem with contemporary methods. His was neither an old nor a modern idea; and it was one with universal and everlasting significance.” The impact of Sitte on Saarinen’s urban plans has been discussed in a range of sources, though most have stressed the historicist aspects of Sitte’s influence, not the “modern” ones with which this dissertation is concerned.

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13 Lars Sonck, “Modern Vandalism,” *Finsk Tidskrift* (1898): 262-287, cited in Mikkola, “Eliel Saarinen and Town Planning,” 190. According to Mikkola’s translation, the article was prompted by an account of Sitte by Frederik Sundbarg the previous year in the Swedish periodical *Ord och Bild.*


By extending Sitte’s focus on efficient circulation and spatial linkages to a comprehensive plan for the future city, Otto Wagner also made important contributions to the concept of urbanism Saarinen began to develop after 1910. Christ-Janer argued that this was cultural, that Saarinen “had the optimism at first of the men like [Wagner] who looked with expectation toward the progress of industrial growth. This was the final optimism of the Renaissance, the last flush of spiritual prosperity, which was to meet with disillusionment in the First World War.”16 The first piece of Christ-Janer’s formulation, regarding Saarinen finding an alliance with Wagner’s expectation of urban expansion based on industrial growth, rings true, however loaded the rest of his claim is. The timeline of Saarinen’s travels in Central Europe and his interactions with key individuals signify that by the time he turned to urban planning in earnest, he was certainly aware of Wagner’s work on the subject, especially the 1893 Vienna plan and 1896 Stadtbahn projects, the textbook *Modern Architecture*, and perhaps even Wagner’s ideas on metropolitan development published in 1911 as *Die Grossstadt*. The international Competition for Greater Berlin was underway by the end of 1908, and Saarinen likely viewed its results in person at one or the other of Werner Hegemann’s 1910 or 1911 urban planning exhibitions in Berlin and Dusseldorf.17 Saarinen’s European plans of 1911-1918, as well as his Chicago and Detroit civic center designs of the 1920s, are predicated on the same interest in designing plans that would accommodate the modern city’s future expansion.

American architecture and planning also made its way to Finland via architectural periodicals. Articles by Ludvig Mallander and Thor Lagerros, titled “The City of New York,”

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and “American Building,” are just two of many examples; both articles detailed American architecture in general, and the work of H.H. Richardson and Louis Sullivan in particular.\textsuperscript{18} Leonard Eaton argued that both Sullivan and Richardson were significant influences on Saarinen, noting especially their relative freedom from tradition and, especially with regard to Richardson, their harmoniousness with the Scandinavian National Romantic style.\textsuperscript{19} Kirmo Mikkola later emphasized also the impact of Daniel Burnham’s Chicago plans on Saarinen’s Finnish urban design projects. Burnham’s 1909 scheme would prove essential for Saarinen’s own plan for Chicago designed in 1923.\textsuperscript{20} Even so, especially in the period before Burnham’s plan was published, Saarinen’s planning theory was arguably more firmly rooted in the work that emerged via Sitte and Wagner in Central Europe than in any specific American model. Saarinen and other Finnish art and design practitioners had already developed quite rich relationships with the corresponding communities in Germany and Austria before the turn of the twentieth century, and Saarinen thus turned to the geographically closer region for inspiration on urban issues before looking farther afield to Western Europe or America.\textsuperscript{21}

Saarinen was also drawn to the English Garden City movement, and especially to the model propagated by Ebenezer Howard in his 1898 book \textit{Tomorrow: A Peaceful Path to Real Reform}.\textsuperscript{22} Howard described a garden suburb consisting of rural-like residential neighborhoods surrounding a central park, an extensive cultivable green belt to prevent urban encroachment, and facilities for shopping, culture, and community activities, laid concentrically outward from a

\begin{itemize}
\item \textsuperscript{18}Thor Lagerros, “Amerikansk byggnadskonst,” \textit{Arkitekten} 9 (1908): 130-131; Mallander citation unknown; both mentioned in Eaton, “Finnish Architecture,” 186.
\item \textsuperscript{19}Ibid., 206.
\item \textsuperscript{20}Mikkola, “Eliel Saarinen and Town Planning,” 189.
\item \textsuperscript{21}The United States’ long association with modern technology certainly may have impacted his plans of the following decades in less tangible ways, however, as was made clear in Chapter 1. See also Margaret Herman, “Creating a Finnish National Identity at the Paris 1900 Exposition” (presented at the annual meeting of the College Art Association, New York, January 2013) for more on the connections between Finland and Central Europe at the turn of the century.
\item \textsuperscript{22}Mikkola, in particular.
\end{itemize}
large town. Raymond Unwin’s and Barry Parker’s Letchworth Garden City of 1903 and their
Hampstead Garden Suburb of 1905 also provided important built models for Saarinen’s
increasing interest in greenery and in decentralization, even if they were intended more as a
remedy to unrestrained growth rather than an acceptance of it.23

In addition to the Garden City movement, the design theories propagated by the English
Arts and Crafts and the Central European Art Nouveau movements proved critical to Finland’s
artistic community at the turn of the century, especially with regard to the concept of the
_Gesamtkunstwerk_, or total-work-of-art.24 These movements directed Saarinen towards a holistic
view of design, architecture, and urban planning, and an idealistic interest in improving the
public’s aesthetic sensibilities. It is evident in the Chicago and Detroit plans, however, that these
Romantic notions were far from the only driver of Saarinen’s urbanism. This chapter will show
that Saarinen’s emphasis on practical patterns of circulation, on the consolidation of
transportation functions, and on the use of monumental towers as fulcrums around which
essentially Hausmannian spaces spread, indicate a technological and not a purely organic focus.
Rather than working to solve current urban problems as Sitte did, Saarinen, like Otto Wagner,
was concerned with resolving future problems caused by urban growth.

Before moving to a specific discussion of Saarinen’s Chicago and Detroit, in which these
concerns are most clearly expressed, an examination of how Saarinen applied these models of
circulation and decentralization taken from Sitte, Garden City planning, and Otto Wagner in the
series of urban plans he designed over the course of the 1910s is necessary. Saarinen developed
urban plans for Budapest, Hungary (1911), Reval (now Tallinn), Estonia (1911), the new
Australian capital Canberra (1912), and for Helsinki (1911-1918). Even in contexts where the car

23 Ibid., 191.
24 Ibid.
had not yet become a dominant feature of the landscape, Saarinen displayed a uniquely forward-thinking understanding of urban expansion and the possibilities of transportation hubs to fix its associated problems. Rather than being solely focused on the romantic or on the organic, Saarinen’s theory of urban design instead emerges with much more complexity than that found in earlier historical analyses.

In late 1911, Saarinen was asked to consult on prospective urban design competitions for two Eastern European capitals. Saarinen developed a master plan for Budapest and wrote commentary on the subject in 1912, and by 1913 had entered and won a similar competition for Reval in Estonia. In Budapest, Saarinen anticipated future growth by placing a new central train station four kilometers from the old town center, believing that the old and new parts of the city would eventually merge together into an organic whole, guided in its development by a comprehensive planning philosophy and cooperation among local government and landowners (Figure 44). Saarinen wrote, “The question is, can one conceive a future commercial center as extending over such a large area? The ancient city, with its institutions and traditions, will always remain the center. In its turn, the central station will certainly form a center of itself. If the two cannot be combined, then we may expect the future Budapest to have two centers,” something Saarinen did not find problematic. Additionally, Saarinen created a network of streets that would specifically prevent future traffic congestion, delineating a tiered system of uninterrupted thoroughfares, subsidiary feeder roads, and slower residential streets. Saarinen concerned himself also with the aesthetic and social implications of the three-dimensional built environment common to a wide array of architects, including Wagner, Sitte, and English Arts

and Crafts theorists like John Ruskin and William Morris. Saarinen stated in his comments on the Budapest master plan that “the living conditions of hundreds of thousands, even millions of people, were at stake. All these people’s lives must become brighter, healthier and more beautiful. Their aesthetic sense will develop and their grasp of the meaning of cultural undertakings will be clarified.”

At the same time, he described a concept of urbanism that foretold his Chicago and Detroit plans, integrating a traditional civic center, that which symbolizes the city as such, with modern building types and infrastructure – in this case a central terminal and road and rail networks.

For Reval, Saarinen designed a monumental civic center with large-scale buildings set in plazas and wide straight roadways radiating outward in an almost Haussmanian fashion (Figures 45 and 46). As Saarinen explained it in a 1913 journal article, the purpose of the plan was to create a system of controls, to accommodate expansion, in which a principle of general development is set forth, a principle which ought gradually to penetrate future growth, so that the city may enjoy a healthy, normal development by anticipating those various problems which can be practically visualized. The modern city plan must solve these problems in a practical, hygienic and aesthetic manner.

These comments clearly indicate Saarinen’s anticipation of future expansion in the manner of Otto Wagner, while retaining Sitte’s dual concern for efficient circulation and the aesthetic relationship of monuments to their urban environment. Saarinen had obviously absorbed the lessons of the 1910-1911 International Planning Exhibitions in Germany in the employment of population projection analysis during the Reval planning process that turned out to be fairly accurate, according to Igor Djomkin’s book on the plan. Saarinen created a system that would...

28 “Stadtplanung für Reval,” Der Stadtebau 18, no. 5/6 (1913), translated in Christ-Janer, Eliel Saarinen, 46.
eventually allow for about 500 persons per hectare, about twice as many proposed by other contemporary planners like Ebenezer Howard.\textsuperscript{30}

At the same time that Saarinen was gaining notoriety as a planner in northeastern Europe, he entered in 1912 a competition to create a master plan for the new Australian capital city of Canberra, located between Sydney and Melbourne. Saarinen’s rather hastily designed scheme consisted of a monumental avenue following the curve of the Molongo River, with government buildings on one end and cultural buildings on the other (Figure 47).\textsuperscript{31} Saarinen placed the Central Railway Station in the middle of the plan, in a central business district meant to eventually expand towards the southeast.\textsuperscript{32} Again, Saarinen used statistical analysis to project future population growth and regional expansion, stating, “We can to a certain degree and with the aid of the before-mentioned statistics calculate the possibilities of development within a certain time, but we cannot anticipate this development in a more distant future with new possibilities. Consequently, it is safest to plan the town in its principal outlines so that its expansion can take place without hindrance…”\textsuperscript{33} Saarinen designed radial roads and tramways that would accommodate this growth outward, and provided in the curvilinear secondary streets a variety of aesthetically pleasing views, somewhat similar to his Reval and Budapest plans but on a much vaster scale. The landscape of rural Australia chosen for the new city was dramatically described by Edwin Slosson, an American writer, in his article “Hunting for the Capital of Australia,” published in 1912.\textsuperscript{34} What is clear from that description is the nature of the political compromise involved in choosing an entirely new site, an issue that, according to Saarinen,

\textsuperscript{30}Lewis Mumford cites Howard’s population numbers in his forward to Howard, \textit{Garden Cities of Tomorrow} (London: Faber and Faber, Ltd., 1946).
\textsuperscript{31} Reps, \textit{Canberra 1912}, 367.
\textsuperscript{32} Ibid., 132-133.
\textsuperscript{34} Slosson, Edwin. “Hunting for the Capital of Australia.” \textit{The Independent} 73 (September 12, 1912): 602.
presented challenges he was never able to fully overcome. In an interview with Christ-Janer, Saarinen stated that he believed his plan was ultimately unsuccessful because it was too imaginary: “I learned in this competition that the absolute freedom of such a project is too idealistic; the imagination does not work soundly when it is free from difficulty. We must strain against limitations” in urban design.\(^{35}\) Although Saarinen received second place to the Walter Burley Griffin, formerly of Frank Lloyd Wright’s office, he evidently impressed the Australians enough to later be invited to serve on a jury for a competition for Canberra’s Parliament House in 1916.\(^{36}\)

Meanwhile, back in Helsinki, Saarinen embarked on a project that would define the decade and cement his international reputation as a planner. In 1911, he met Julius Tallberg and Leo Lerche, two clients interested in developing a new suburb known as Munkkiniemi-Haaga. The three traveled to Stockholm, Copenhagen, Hamburg, Karlsruhe, and Munich in order to view contemporary private suburb developments and other urban planning projects.\(^{37}\) The Munkkiniemi-Haaga plan, the design of which would later inform the much larger city plan of Helsinki, was developed in detail over the next four years, and finally published in 1915.\(^{38}\) For Saarinen and his clients, the new suburb would serve as a counter to the haphazard planning that had occurred in the city since the turn of the century. Just as Wagner had attempted in his Vienna plans, Munkkiniemi-Haaga would express a concept of decentralization built in advance of the urban population explosion that Saarinen knew was inevitable in the modern city.

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\(^{35}\) Saarinen, quoted in Christ-Janer, *Eliel Saarinen*, 47.

\(^{36}\) Walter Burley Griffin to Eliel Saarinen, undated, 1916, Eero Saarinen Collection, Manuscripts and Archives, Yale University Library, New Haven, CT. See also Christ-Janer, *Eliel Saarinen*, 128.


The plan’s layout is similar to the model Saarinen had created in the 1911-1912 plans, with a decentralized, garden-city-style suburb linked to the city by railroad and tram networks (Figures 48 and 49). Again, Saarinen illustrated a perceptive understanding of demographic projection, developing a complex system of traffic improvements connecting suburb to city that used statistical analysis to forecast population growth to the year 1945. Saarinen also studied contemporary Finnish and Scandinavian commuting patterns on tram lines and regional road systems, and worked out a scheme by which separate routes would be constructed for fast and slow traffic, separated by a stretch of landscaping. The tramlines would be accompanied on their outer sides by a suburban railway, and all of these functions would be consolidated into the transportation hubs Saarinen designed in his slightly later plan for Greater Helsinki. For Saarinen, more efficient transport in and around the city was a key element of a city’s responsibility to its citizens. Mikkola also highlighted Munkkiniemi-Haaga’s concern for “congruence,” or the visual impact of the pleasant juxtaposition of buildings that Saarinen describes in his accompanying commentary. These social and aesthetic factors, together with Saarinen’s use of population growth models, his consolidation of transportation functions into central stations, and his design of so-called “expressways” to bring people in and out of the central business district, would become key elements underlying the architect’s American urban plans.

By the mid-1910s, the city of Helsinki as a whole was facing large-scale expansion thought to require urban intervention. Saarinen’s 1918 Plan for Greater Helsinki, with its

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39 See the charts and graphs in Saarinen’s text; also, Mikkola “Eliel Saarinen and Town Planning,” 204, 206.
layering of inner-city transportation functions, points directly to Saarinen’s Chicago and Detroit plans (Figure 50). An arterial route meant to help traffic circulation ran underneath local streets through the city towards another rail station, while alongside the roadway ran two separate tunnels containing a tramway in one and sea-bound industrial rail traffic in the other. These tunnels were accessible at the basement level of commercial buildings. Saarinen was concerned with the relationship between a building’s purpose and urban infrastructure. For Saarinen, a railway station was the ultimate modern design problem because of the flexibility required to allow for the large numbers of people coming in and out of the city from different directions. In a 1931 article on his Helsinki master plan, Saarinen depicted the central core of the city as a “mother” with “daughters” radiating outward in the form of residential neighborhoods. In both the suburban plan for Munkkienimi-Haaga and in the plan for Greater Helsinki, Saarinen’s designs far outstripped the actual traffic patterns of contemporary Helsinki, where the car had not yet emerged as a dominant force. Saarinen’s engagement with contemporary architectural, urban planning, and technological trends around the world, however, suggests the likelihood that he was well aware of the problematics of population growth and automobile transportation by the late 1910s, and constructed his scheme with these issues in mind.

After World War I, Saarinen’s architectural fortunes shifted dramatically when the Finnish commercial sector, on which Saarinen relied for commissions, faced sharp declines with the loss of trading business with Russia due to signs of revolution. Only in 1922 did Saarinen engage in another project that would gain him international prominence; this was his submission

42 Mikkola, “Eliel Saarinen and Town Planning,” 204.
43 Saarinen, “Lausunto eraista Helsingin asemakaava kysymksista,” commentary in Helsingin kaupungin keskiosien yleisasemakaavaehdotus. 1931, (Helsinki, 1932), 52. (“Opinion on town planning issues” for a Helsinki plan of 1931). Saarinen further described what he saw as the biological basis for urban planning: “New molecules multiply, each one to the task for which it is intended. The organism grows to the extent that each organ grows, and is enabled to grow, as may be required for the whole…This is the law of nature.” In Saarinen, 1931, 52, translated by Mikkola, “Eliel Saarinen and Town Planning,” 195.
to the Chicago Tribune tower competition. Saarinen’s entry was extensively documented and debated in the contemporary architectural press, and has been discussed at length in the historical scholarship.\(^45\) Saarinen’s design was characterized most significantly by its seemingly uninterrupted verticality and relative lack of decoration, especially in comparison to the gargoyles and complicated flying-butress tower forms of Howells and Hood’s winning project (Figure 51). Saarinen used a much simpler and geometric Gothic style that accentuated the skyscraper’s immense scale and engagement within the cityscape. In relation to his subsequent urban planning schemes, Saarinen’s Tribune Tower design represented his first full-fledged connection to Chicago and America, and it reflected in a new context (and new building type) Saarinen’s concept of monumental architecture, in which towers served as axis points around which a rationalized modern city could emerge.

For many critics Saarinen’s proposal embodied a successful adaptation of the stripped-down modernist aesthetic to the elegant, cosmopolitan spirit of contemporary American capitalism. As mentioned in Chapter 2, Louis Sullivan sung the praises of Saarinen’s second-place finish in a widely read article in *Architectural Record*.\(^46\) For Sullivan, whereas the winning design was “governed” by fixed ideas about architecture that masked the American spirit, Saarinen was a “master of ideas” who had created a truly American form of a tall office building. Sullivan argued that Saarinen’s foreign background was an advantage in the competition, asking rhetorically: “Is there no American as American in his feelings as the man from Finland appears to be?”\(^47\) Sullivan stated his surprise that Saarinen could “grasp the intricate problem of the lofty


steel-framed structure, the significance of its origins, and held the solution unwaveringly in mind, in such wise as no American architect has as yet shown the required depth of thought and steadfastness of purpose to achieve.” In contrast to Howells and Hood’s entry, Sullivan felt that Saarinen more completely adhered to the competition’s brief to “secure the design for a structure distinctive and imposing, the most beautiful office building in the world.” This tribute was so strong that the Tribune’s owners even went so far as to use two of Sullivan’s quotations in the official competition publication, one explaining the newspaper’s goals in holding the contest, and the other commending Saarinen’s project.

Irving Pond and Thomas Tallmadge also extolled Saarinen’s design in their articles “High Buildings and Beauty,” in Architectural Forum, and “A Critique of the Chicago Tribune Building Competition,” in Western Architect, respectively. For his part, Pond referred to Saarinen’s design as “the only well-nigh structurally pure and thoroughly logical solution of the problem of the lofty steel-framed structure… [Saarinen] perhaps because of his remoteness from contaminating influences, and perhaps because of his own fine intuitions, was able to see the problem clearly and see it whole.” Tallmadge echoed many critics in admiring the comparatively stripped down and wholly vertical thrust of Saarinen’s building that seemed so appropriate to the skyscraper typology. Egerton Swartwout’s comment in the American Architect and Architectural Review reflected a dissenting view; he wrote that he could not

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48 Ibid., 153-156.
49 Ibid., 152; The International Competition for a New Administration Building for the Chicago Tribune MCMXXII (Chicago: The Tribune Company, 1923).
“consider seriously Mr. Sullivan's statement that the Tribune Building by Saarinen is ‘a splendid interpretation of the spirit of the American people,’ a statement which to me means nothing.”

Despite such criticism, Saarinen’s design was widely lauded in the architectural press for its modern qualities, even as it retained many of the same Gothic references as Howells and Hood’s. Although most of the contemporary architectural press and subsequent scholarship on the Tribune tower has focused on stylistic elements, and especially the setbacks and expression of verticality inherent in Saarinen’s design, Saarinen himself viewed it as a tower acting not as an isolated entity but rather as one node within a larger urban whole. This idea was noted by only a few of the Tribune Tower’s many critics, among them Werner Hegemann and Gerhard Wohler in Germany.

The advisory architect to the Tribune Competition, Howard Cheney, wrote a letter to Saarinen in December 1922 stating the hope that “at some future date an opportunity will present itself to make possible the execution of [Saarinen’s] design here in Chicago, and on our rapidly developing upper Michigan Boulevard, which is becoming one of the most notable and distinctive Boulevards in the world.” Saarinen described a similar vision of the Tribune tower project in his 1923 article “A New Architectural Language for America.” He considered the actual realization of his tower in some other location very important. In Saarinen’s mind, the Tribune Tower would emerge out of “a whole city picture,” as part of a uniquely American

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urban expression. According to this model, the tower was a method of delineating the spaces of circulation around it, spaces that would reflect “principles of city building that collaborate with the sound and natural characteristically American development.”

Saarinen elaborated on his concept of the tower as part of a larger urban plan in a letter he wrote to his American associates on the project, Dwight G. Wallace and Bertell Grenman of Chicago, which was subsequently published in the *Chicago Tribune* and *Michigan Architect and Engineer* in April of 1923. First, Saarinen praised Howells and Hood’s design, aside from the tower-buttress formulation which Saarinen believed disrupted the “logical construction” desired by a viewer looking at the building from up close or from a distance. After all, “a skyscraper such as the one in question will not remain free standing forever, but will be surrounded by other buildings of similar height, and consequently it must be looked at from a slight distance.” As Saarinen described it, the skyscraper problem “interested me not only from the separate unit but as a whole system.”

From the beginning then, he considered the American city holistically, preferring at this stage monuments designed with an emphasis on verticality and in a cohesive “new architectural language” of modernity, not the intermixing of historical forms and variety of scale found in places like downtown New York City.

After winning second prize in the Tribune Tower competition, Saarinen was invited by the manager of the Tribune to visit America in February of 1923. Saarinen arrived first in New

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58 Ibid., 13.
60 Ibid.
York, accompanied by his friend Gustav Strengell, where he was the guest of honor at multiple events hosted by the leadership of the American Institute of Architects.\(^6^3\) Aside from meeting with colleagues, the visit gave Saarinen a first-hand glimpse of American skyscraper urbanism. In a 1923 *New York Times* article discussing the visit, the author wrote that Saarinen viewed the city’s buildings as having a unique combination of “love and commercialism.” Yet Saarinen criticized New York’s apparent lack of urban planning, seeming to nearly paraphrase Sitte and Wagner in his comments. He said to the reporter, “All over the city it is just a jumble of buildings. Take Madison Square, for instance – one of the city’s civic spots. It is ugly. There is a park – an open space – with a tall building here and a flat, squatty little makeshift building adjoining it. Places like Madison Square should be surrounded by beautiful edifices and not by irregular ungainly stores and office buildings.”\(^6^4\) Around Grand Central Station, on the other hand, Saarinen praised how “the magnificent hotels and office buildings there harmonize with their surroundings and make it one of the truly beautiful areas in Manhattan…it shows that architecture is looking forward.”\(^6^5\) These comments hark back to Wagner in pre-World War I Vienna, to the combination of architectural uniformity, modern materials, and embrace of growth propagated in *Modern Architecture* and “The Development of a Great City.”

Saarinen quickly went on to Chicago where, according to the art critic Aline Loucheim in the 1940s, he reacted with shock at certain aspects of American culture, including “the sight of

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\(^{63}\) According to a notice in the New York Times: “Mr. and Mrs. Alfred C. Bossom of 680 Fifth Avenue, gave a luncheon yesterday to Eliel Saarinen, the Finnish architect, who has come to this country as the guest of the Chicago Tribune on account of the unique design that he submitted for their Chicago office building. Among the guests were Mrs. Edward Hart, Mrs. Albert Sterner, Mrs. Albert Jaeckel, Dr. Christian Brinton, Prof. Nicholas Roerick, D. Everett Waid, Howard Greenley, Gustaf Strengell and Bertel Grenman, the latter being two friends of the architect from Finland.” See “Luncheon to Eliel Saarinen,” *New York Times* (March 16, 1923). See also: “Sees Great Beauty in City Buildings: Eliel Saarinen, Finnish Architect, Declares Americans Have Combined Love and Commercialism,” *New York Times* (March 13, 1923).

\(^{64}\) “Sees Great Beauty in City Buildings.”

\(^{65}\) Ibid.
people chewing gum,” as well as “his inability to make puns in the new language.”

But it was Chicago’s traffic, its virtually unused lakefront, and the slums he saw while taking the elevated trains around town that spurred him towards visionary American urbanism. By April 1923, Loja and their children joined Saarinen in Chicago, and the family moved into a house in Evanston, Illinois. During this first nine-month stay in the Midwest, Saarinen developed his Chicago Lake Front Project, a plan that explored both the urban potential of the Tribune tower prototype and the new, more appropriate American context for high-speed multi-layered infrastructure. Saarinen’s interest in creating such a plan for Chicago was likely reinforced by the suggestion that there was need for such a vision in the city presented by the Tribune competition and the 1909 Chicago Plan before it. For Saarinen, the city quickly revealed itself as a fertile site for urban experimentation.

For Saarinen, inspired independently of a commission or sponsor, the Chicago lakefront plan was intended to show the limits of what was possible. Indeed, he wrote in his project statement, “I have not aimed to present that plan which shall be executed, but one that can be.”

Unlike the entirely utopian planning projects of the early 1920s, such as Le Corbusier’s City of Three Million, or Hugh Ferriss’ renderings for Harvey Wiley Corbett in New York, Saarinen was far more interested in the reality of the contemporary and future city. In the Chicago and Detroit designs, he worked to translate the complex transportation systems and methods of expansion found in his earlier European plans to the unrestrained growth of machine-age American cities. Instead of attempting to manage growth through small-scale communities as the English garden suburb designers did, in Chicago and Detroit Saarinen emphasized the high-speed access routes.

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67 According to Christ-Janer’s discussion with Saarinen, the architect was deeply affected by the clogged and dirty downtown areas. See Christ-Janer, Eliel Saarinen, 61, and Loucheim, “Architect, Artist, Finn, American.”
oversized vehicular storage solutions, and three-dimensional architectural uniformity that would allow the future decentralized city to retain a measure of monumentality and symbolism, and an essentially metropolitan character.

Perhaps echoing the move towards an optimistic, futurist model of city planning among architects like Saarinen, Neutra and Wright, the havoc automobile traffic began to inflict on American cities by the 1920s also helped shift their perception of the car, towards a consideration of its long-term impact. Given Saarinen’s full-bore engagement with the field of American urban planning, first via the Tribune Tower competition and especially on his arrival in Chicago, his visionary plans should certainly be included within these larger contemporary discourses related to the American problem of automobile congestion. Saarinen’s Chicago plan consisted of a series of proposals to solve the city’s traffic problem.  

Saarinen discussed aspects of his Chicago Lakefront plan in several lectures in and around Chicago throughout 1923, as well as in an article in *The American Architect/The Architectural Review* in December. The plan’s fundamental concepts included, first, a location that was predicated on the anticipated electrification of the railroad, an issue with a long history and many ramifications for the lakefront. Electrification would allow for the burial of the unsightly rail yard, and for restaurants and waiting lounges of the train station to be relocated underground, expanded, and lit by vast light courts below a plaza on the north end of the plan. Saarinen viewed his design in

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70 Ibid. Regarding the lectures around town, see: Ernest A. Grunsfeld, Jr. to Saarinen, Feb 2, 1923. Grunsfeld refers to Saarinen’s explanation of his Chicago/Grant park scheme “two weeks ago,” and says, “In speaking of this plan of yours to a friend who is on the Village Council of Winnetka, Ill., he suggested that he would bring your name before the Council in connection with a town center that has been proposed”; J.F. Foster, General Superintendent, on behalf of the South Park Commissioners, Chicago to Saarinen in Evanston, IL, October 30, 1923: “I saw a notice in the newspaper that you have been giving the matter of underground automobile terminals in the loop district considerable thought. The Park Commissioners are interested in this and I should like very much to get in touch with you.” Both in the Saarinen Family Papers, Box 2 Folder 3: Correspondence February 1923-April 1924, Cranbrook Archives, Bloomfield Hills, MI.

some regard as a remedy to the limited scope of the Illinois Central’s plan described in Chapter 2. Saarinen instead wanted to connect the rail yard to a much bolder reorganization of the entire lakefront. To a large extent, the plan was shaped by the current traffic problems in the area. Saarinen’s estimation of these issues was framed by what he felt was a characteristic American tendency towards the concentration of urban functions; as such, his plan would have expanded the central area.

As in Helsinki, Saarinen in Chicago was interested in future growth, most clearly articulated in his attempts to resolve the congestion that he projected would overtake the city in the next decades. Rather than focus on small-scale changes of the immediate present, or on the rail electrification that was already being made irrelevant by automobile transport, Saarinen used population projection techniques and created vastly over-scaled parking structures and highways that signal an utterly visionary outlook towards what the city might need in the coming decades. Saarinen had obviously considered the contrasts between Europe and America, and also some of the difficulties of American planning, stating that “automobile driving is much more common here than in the cities on the other side of the Atlantic; and secondly, the city plans are not conducive to an easy regulation of the traffic.” In order to solve this problem, Saarinen designed a major boulevard running parallel to the lake that would be integrated into adjacent parkland and terminate at each end with a large open plaza (Figure 52). Towers resembling the Tribune project provided visual endpoints within the central section and were situated at each end of the central portion of the boulevard (Figure 53). Saarinen named the south plaza tower the Chicago Tower, and planned arcades that acted as links to surrounding structures, including the Art Institute, which Saarinen suggested be balanced by a major concert facility across the sunken

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72 Saarinen, “Project for Lake Front Development of the City of Chicago,” 488.
73 Ibid., 489.
74 Ibid., 490.
boulevard to the east.\textsuperscript{75} A fifty-seven-story hotel containing 4,000 rooms dominated the north plaza; visitors to the hotel would pass directly to the railway station below (Figure 54). The monumental roadway was to circulate under and around the plazas and join up with other major streets routing traffic through the area, theoretically relieving the existing congestion problem. Much of this main thoroughfare was to be built below grade, and connect via an elaborate series of ramps on each side to an enormous, three-level parking garage designed to hold upwards of 40,000 cars (Figure 55).\textsuperscript{76} Saarinen understood that the problem of central-city parking was a critical issue associated with urban expansion.\textsuperscript{77} More so than the contemporary examples of parking garages mentioned by Harold F. Blanchard in \textit{Architectural Forum}, Saarinen’s massive structure advanced well beyond what was practical for contemporary traffic patterns.

Saarinen saw his Chicago plan as a means of rationalizing American urban planning in its local context. Nevertheless, Saarinen’s plan reveals the clear influence of the Central European models that informed his own earlier projects. In particular, Camillo Sitte’s aesthetic of related spaces, theory of decentralization, and separation of work and residential spaces are fairly obviously on display. In his \textit{American Architect} article, Saarinen indicated a desire to unify Sitte’s use of the urban picturesque, characterized by groups of views and framing of sightlines, with a plan that would simultaneously play to the quality of speed beginning to characterize 1920s American cities. This unification would greatly improve the circulation of traffic as the city’s automobile and human population expanded in the future. Saarinen described “the architectonic grouping of the masses” in his plan as a “framing for the whole in order to form an harmonic rhythm of city views around Grant Park,” while also telling the reader what a visitor might see when looking down from a room in the Grant Hotel, “the dark endless chain of

\textsuperscript{75} De Long, “Eliel Saarinen and the Cranbrook Tradition,” 49.
\textsuperscript{77} Saarinen, “Project for Lake Front Development of the City of Chicago,” 491.
automobiles rush[ing] on to the North and the South. He can follow it as far as the eye reaches. He finds labor and diligence. And he feels that they are the forces that have created this pearl on Michigan’s shore.”\textsuperscript{78} The social benefits and aesthetic results of an efficient urban planning system are thus put front and center.

Without mentioning him by name, Saarinen’s design was also indebted to Otto Wagner, whose projections of Vienna’s future development have already been mentioned. Saarinen’s plan contained a similar belief in monumentality, an integration of a symbolic center within an inherently urban, comprehensive structure for metropolitan development, and a similar interest in developing artistic solutions to the chaos of the city. Although the mode of transportation and particular architectural typologies in Saarinen’s lakefront Chicago plan are entirely different from what Wagner imagined in his Vienna plans, Saarinen in fact followed Wagner’s admonition to make the most modern materials and building types visually pleasing and functionally effective.\textsuperscript{79} Instead of the railway networks of Wagner’s Vienna, future expansion in Chicago would be accommodated by massive parking garages and center city highways that would play the same connective role between downtown and residential neighborhoods.

A study of Saarinen’s Chicago plan would be incomplete without a closer consideration of earlier planning projects for the same Grant Park area, most significantly Burnham and Bennett’s Plan of Chicago of 1909.\textsuperscript{80} Saarinen stated that the plan “shows a mind for big views and broad monumental qualities. It seems to me, however, that [the planner] has labored too much with European principles regarding street contours and horizontal limitation. It looks as if there had been a desire to eliminate the characteristically American skyscraper or at least to press

\textsuperscript{78} Ibid., 514.  
\textsuperscript{79} See Chapter 1; Otto Wagner, \textit{Modern Architecture}, 109-111.  
\textsuperscript{80} For more on the Plan of Chicago, see Thomas Hines, \textit{Burnham of Chicago: Architect and Planner} (New York: Oxford Press, 1974) and many others.
it into forms and dimensions that are totally foreign to it.”^81 Manfredo Tafuri described the relationship between Burnham’s 1909 plan and Saarinen’s Chicago Lake Front project at length in “The Disenchanted Mountain: The Skyscraper and the City,” contending that while Saarinen found the theories of Sitte and Burnham compatible, the Finnish architect was “also sensitive to the greater scale of the American metropolis. He interpreted the phenomenon of commercial concentration in particular areas as part of the dynamics of the American city and thus as a reality not to be questioned…”^82 Tafuri saw Saarinen’s plan as an attempt to recover Burnham’s concept of the City Beautiful, even as it exceeded Burnham’s explorations of the monumental civic center. Although in Saarinen’s 1943 book *The City*, he would call out Burnham’s 1909 Chicago scheme for its failure as a model for lakefront development, Saarinen’s writings on the Chicago Tribune Tower competition at the time, and the unambiguous ambition evident in the 1923 lakefront project, reflect the influence of Burnham’s 1909 plan.

The architectural world was immediately impressed with Saarinen’s plan for Chicago’s lakefront. To Page A. Robinson, the editor of *The American Architect/The Architectural Review*, Saarinen had an especially clear understanding of both the imminent dominance of the automobile in Midwestern American cities, and the problems the automobile was already causing. ^83 Robinson praised Saarinen’s emphasis on facilitating easier use of automobile transportation, and the inclusion of garages in his design, which would remove some of the hassles of driving and parking. Robinson considered Saarinen’s project successful for its synthesis of parks and greenery, streets, and automobile storage that managed to hide its utilitarian aspects within aesthetically pleasing monumental plazas. ^84

^81 Saarinen, “Foreign Architect,” 54.
^84 Ibid.
Shortly after Saarinen published Chicago lakefront project in *American Architect/The Architectural Review*, the Architectural League in New York City invited Saarinen to a dinner in his honor to be held on February 20, 1924. The guest list consisted of a “who’s who” of American architects, including Harvey Wiley Corbett, Cass Gilbert, Raymond Hood, Bertram Goodhue, Albert Kahn, William Van Alen, John Mead Howells, and others. The New York Chapter of the American Institute of Architects additionally organized a separate dinner for Saarinen during the same February trip. A letter from E.J. Rosencrans thanking Saarinen for attending the February 20th event shows how well known and admired the Finnish architect was among American architects at this moment. Rosencrans wrote, “I have received letters from a number of the guests at the dinner expressing their pleasure in meeting you or renewing acquaintance with you…” and mentioned a possible future collaboration of Saarinen with Corbett that had apparently been discussed. Corbett himself wrote to Saarinen on February 28, 1924, stating, “I sincerely hope when you are again in New York you will come in and see me. There are many matters I want to discuss with you which may be to our mutual advantage.” As described in Chapter 2, Corbett was deeply engaged in his own visionary architectural and planning projects in New York City at the time, particularly in association with Hugh Ferriss in several futuristic skyscraper and multi-level infrastructure projects developed in 1923. This fascinating hint of the relationship between Corbett and Saarinen confirms the latter’s reputation within the American architectural community. It also serves as further evidence of how influential Saarinen’s model of visionary urbanism may have been during the 1920s, despite the

85 E.J. Rosencrans to Saarinen, with invitation, December 20, 1924, Saarinen Family Papers, Box 2 Folder 3: Correspondence February 1923-April 1924, Cranbrook Archives.
86 D. Everett Waid, President of the New York Chapter of the American Institute of Architects, to Saarinen, January 14, 1924, including an invitation to a dinner with the chapter on Feb 13, 1924. Saarinen Family Papers, Box 2 Folder 3, Cranbrook Archives.
87 E.J. Rosencrans to Saarinen, Saarinen Family Papers, Box 2 Folder 3, Cranbrook Archives.
88 Harvey Wiley Corbett to Saarinen, February 28, 1924, Saarinen Family Papers, Box 2 Folder 3, Cranbrook Archives.
minimal attention it has received from historians.

Saarinen relentlessly broadcast his Chicago Tribune and Lakefront projects to his friends and colleagues around the world, and his archive at Cranbrook is rich with documentary proof of both his own labors to publicize his designs and the myriad responses and inquiries he received in answer. Many letters reveal Saarinen’s participation in debates over the high-tech transportation and infrastructure issues of the day. Saarinen apparently sent a copy of his article to the office of Henry Ford in Dearborn, Michigan shortly after its publication; his secretary responded confirming Ford’s receipt and appreciation.\textsuperscript{89} Aside from being an executive at a local automobile company, Ford had himself experimented with city planning, most notably in his 1922 plan for a 75-mile long linear city in the Muscle Shoals region of Alabama. This project and its influence on Frank Lloyd Wright’s Broadacre City will be described in more detail in Chapter 5. Saarinen surely had heard about Ford’s well-publicized plan by the time he began developing his Detroit riverfront scheme, which similarly contained within its monumental downtown civic center a sense of horizontality and connection to larger regional development.

The Saarinen archive in Michigan also includes a letter from Albert Linniberg of Sweden on May 6, 1924 thanking Saarinen for sending his Chicago lakefront article and remarking, “The ‘car parking’ problems are getting urgent here as well. Your plan has been demonstrated here to a great many architects.” Saarinen made notes for a reply: “That’s quite right! And if they will build in the future a subway, there is no necessity to have any architecture in the whole city because it will not be shown from the subway.”\textsuperscript{90} On May 26\textsuperscript{th}, Edward H. Bennett of Chicago (and of the 1909 plan) wrote a letter to Saarinen with regard to the copy of the lakefront plan.

\textsuperscript{89} H.M. Cordell to Saarinen, January 7, 1924, Saarinen Family Papers, Box 2 Folder 3, Cranbrook Archives.  
\textsuperscript{90} Albert Linniberg to Saarinen, May 6, 1924, Saarinen Family Papers, Box 2 Folder 3, Cranbrook Archives.
Saarinen sent him, calling it a “very fine quality of study.” These letters demonstrate how deeply involved in the architecture and planning world Saarinen was during this period, and the effort he expended towards furthering his career in America.

Emil Lorch, chair of the School of Architecture at the University of Michigan, wrote to George Booth, the wealthy owner of the Detroit News and father of an architecture student, in April of 1923 expressing interest in inviting Eliel Saarinen to serve as a visiting professor for the 1923-1924 academic year. Lorch wrote, “His Tribune design practically makes him the leading progressive designer of the architectural world, and as such he belongs here! He has been acclaimed by all the architectural writers who think of him as the ‘find’ of the competition.”

Thanks to Booth’s largesse, Saarinen was appointed visiting assistant professor at the University of Michigan to teach a “Short Course in Architectural Design,” and Saarinen’s temporary stay in the United States became essentially permanent, although he and his family would continue to visit Finland every summer until 1937. While at Michigan, the local chapter of the American Institute of Architects asked Saarinen to design a civic center for downtown Detroit as part of a large-scale program for riverfront renovation and regional transportation improvements. Saarinen was soon ensconced in a long-term urban planning project that would generate several Cranbrook studio projects and progress through myriad delays and different versions for over twenty years. Aline Loucheim heard Saarinen say, with his typical sense of humor, “I thought at

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91 Edward H. Bennett to Saarinen, May 26, 1924, Saarinen Family Papers, Box 2 Folder 3, Cranbrook Archives.
92 Emil Lorch to George G. Booth, April 28, 1923, George Gough Booth Papers, Box 13, Folder 11-13, 21, Cranbrook Archives.
93 See timeline and related notes, Christ-Janer, Eliel Saarinen, 145; see also letter from Lorch to Booth, December 31, 1923, George Gough Booth Papers, Box 13, Folder 11-13, 21, Cranbrook Archives. Saarinen taught the course at least twice from 1923-1925.
that time that Detroit was the ugliest city in the United States, but since then I have seen Atlantic City!”  

Although the Detroit plan was sponsored ostensibly by the Michigan AIA chapter, George Booth and Emil Lorch both played critical roles in ultimately securing the logistical resources necessary for Saarinen’s designs. Booth handed over extensive aerial photographs and detailed maps of Detroit and the surrounding area from the Detroit News collection, while other professors and students in Lorch’s architecture department contributed research and thesis materials related to the urban development of southeastern Michigan. In a letter asking also for a bigger salary for Saarinen, Lorch wrote, “The portion [of the Detroit plan] he is now at work on has tremendous possibilities of a practical, aesthetic, and popular character, and I feel sure that the result will be extremely worthwhile. Having it apparently originate in Detroit instead of imposed without is also very happy.”  

Booth’s son Henry, in an interview with Nancy Rivard in the 1970s, revealed his belief that his father had provided the bulk of the financing for the entire project, although this was never publicly disclosed or verified at the time.

Saarinen’s Detroit plan of 1924 was to feature a civic center and war memorial located on twelve blocks at the foot of Woodward Avenue, within walking distance of the Detroit News plant (Figure 56). The central “Memorial Hall” structure with a dome was arranged in the foreground of the plan facing the water. A long wing on the right of this building was to serve as a grand exposition facility and a convention auditorium. A giant tower building to the left of the

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95 Loucheim, “Architect, Artist, Finn, American.”  
96 Lorch to Booth, February 8, 1924, George Gough Booth Papers, Box 13, Folder 11-13, 21, Cranbrook Archives.  
98 “Gigantic Civic Center Proposed on Riverfront,” 1924, from a local newspaper, exact citation unknown, Saarinen Family Papers, Box 5, Folder 12, Cranbrook Archives; Memorial Hall: A Report Made by Detroit City Council, June, 1924; Fourth Annual Exhibition of the Thumb Tack Club, Detroit, 1924; See Hawkins Ferry, The Buildings of Detroit (Detroit: Wayne State University Press, 1968) for an extensive bureaucratic history of the Detroit civic center project; and Rivard, “Eliel Saarinen in America.”
memorial hall would hold offices of city or county government (Figure 57). According to a 1924 article publishing the plan, “Proposed New Civic Development for Detroit’s River Front,” the Memorial Hall would serve “as the immediate nucleus, the remainder of the center to be developed gradually as the needs of the city expand.” This would additionally solve the problem of a new city and county government building, which the city council had advocated to consolidate various spread-out offices. The other buildings in Saarinen’s designs were supposed to be the commercial buildings of the future, regulated for height and style by a zoning ordinance into a uniform whole.

As in Chicago, however, the grandiose design of the building was almost subsidiary in Saarinen’s plan to his concern for the traffic problem. Indeed, local observers immediately noted the transportation features of the riverfront development, which included a high-speed freeway on either side of the memorial. One newspaper review of the plan described Saarinen’s design in terms of its possibilities for transforming downtown infrastructure, convenient to where “masses of people quickly can be gathered and quickly dispersed. Where the rapid transit system would have facilities to permit underground entry into Memorial Hall. The plan… affords a happy solution of the motor car parking problem.” Saarinen proposed a triple-decked esplanade on the north side of the Memorial Hall tower, named “Victory Square,” that contained a subway station and thousands of automobile parking spaces underneath; a “shore drive” would dip under the esplanade as it ran through downtown.

In the Detroit project, too, aspects of Central European planning shone through. In a 1947 review of Saarinen’s The City, Walter Creese associated the Detroit project with the San Marco

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99 Saarinen, “Project for Water Front Development, Detroit,” 481.
100 “Proposed New Civic Development for Detroit’s River Front,” 1924.
101 Ibid.
102 “Gigantic Civic Center Proposed on Riverfront,” 1924.
103 Saarinen, “Project for Water Front Development, Detroit,” 481.
Plaza in Venice, which he notes was also an important model of Camillo Sitte’s planning theory.\textsuperscript{104} For Creese, the L-shape of adjoining, irregular squares, interplay between horizontal and vertical elements, and the use of a tower as a focal point all refer to this Venetian (and Viennese, via Sitte) model of spatial organization. Creese goes on to argue that this plan’s taking up of Sitte in particular was reflective of the “gradual absorption by American architects of an increasingly activated Viennese Modernism.”\textsuperscript{105} Other scholars have found in Saarinen’s use of towers strong references to Austrian architects like Olbrich, in addition to Sitte’s urbanism.\textsuperscript{106} Creese is typical in the brevity of his comments on these Detroit’s plans, though he astutely observed, from the viewpoint of 1947, the failure of critics to fully evaluate Saarinen’s own statements on the problem of the urban skyscraper: that a tall building should have space around it in order to function as an aesthetically pleasing whole. Again, the forward-thinking anticipation of growth inherent to this, as to all of Saarinen’s plans, was informed both by the influence of Otto Wagner and by Saarinen’s own faith in modern transportation technology, which only seems to have increased upon his arrival to the capital of the American auto industry.

Saarinen’s ties to Central European architecture and urbanism that he had developed from the very start of his career continued not just in the specific planning principles but through the myriad professional and personal relationships with individual practitioners. Just as his house at Hvittrask became a virtual salon for northern European artists and architects in the 1910s, after he arrived in Michigan in 1924 Saarinen simultaneously drew visitors from around the globe and nourished friendships with Midwesterners like Frank Lloyd Wright. One fascinating incident that confirms the connection between Central Europe and American visionary urbanism was Erich Mendelsohn’s visit to Michigan during his extended tour of the United States in the fall of

\textsuperscript{104} Creese, “Saarinen's Tribune Design,” 1-5.
\textsuperscript{105} Ibid., 4.
\textsuperscript{106} De Long, “Eliel Saarinen and the Cranbrook Tradition,” 48, for example.
1924, documented photographically in the 1926 book *Amerika: Bilderbuch eines Architekten*.

Emil Lorch wrote to George Booth on October 29, “Eric Mendelsohn, the well-known European architect was here a few days ago,” a fact supported by a series of letters Mendelsohn wrote around the same time. Mendelsohn was an important figure for two reasons, first that he was very interested in urbanism, not just as a site for his building designs, but, in a similar fashion as Saarinen, Neutra and Wright, as a generative component of his design practice. Second, through his employment of Richard Neutra in the early 1920s, Mendelsohn represents a link between all three architects, another argument for considering the designs for Chicago, Detroit, Rush City and Broadacres together as a distinct urbanistic model with similar roots in the transatlantic exchanges of the early twentieth century. These points are evident in several of Mendelsohn’s projects of the early 1920s which will be discussed further in Chapter 4, including his 1921-1923 renovation of the Mossehaus office building in Berlin, to which the architect added a futuristic streamlined corner entrance that seems to speak to the high-speed quality of modern urban life. His earlier Einstein Observatory contained similar forms and message about science and technology, if not the urban site or modern materials. Mendelsohn also created many futuristic and ultimately unrealized designs during the post-World War I period, including an electric power station and business-center plan for Palestine in 1923.

As is well known, Mendelsohn arrived in America in 1924 and was immediately impressed by the industrial buildings, grain silos, and skyscrapers he saw on his journey between

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New York City, Buffalo, and the Midwest. By late October, he visited Detroit and then Taliesin in Wisconsin, writing letters to his wife Luise that revealed the impact of his experiences and meetings with Saarinen, Wright, and Neutra, who had been working for Wright in Wisconsin for the preceding month. The architecture of Detroit made a special impression on Mendelsohn, and he described the automobile factory designs and other buildings by Albert Kahn in great detail. For example, on October 24th, he wrote, “[Henry Ford] lives in a simple country house in the village center of his own principality, Dearborn. But he has built himself a laboratory for his own purposes which is about as big as the new factory at Luckenwalde and he has [Kahn], ‘the’ architect of Detroit, who has enlivened this dream lab with columns, decorative emblems, and inscriptions...” Mendelsohn made several insightful observations about Detroit’s urban expansion, most notably that the incredibly rapid growth of the city in the previous few years had created an absolutely chaotic central business district of isolated skyscrapers, “all tightly aligned on their own axes: higgledy-piggledy colossi where a controlling hand could have orchestrated tall thundering masses.” Mendelsohn presented Saarinen’s visionary scheme for the Detroit Riverfront as a viable solution to this jumble of forms, one that utilized a similar style as his Chicago designs. Mendelsohn stated, “Detroit is summoning Saarinen, the well-known Finnish architect: he is to conjure up the latest Gothic for them. Reshaping the fantastic, which they already possess, into creative fantasy could succeed if a small community were ready for the onslaught...” Writing from Chicago on October 29th, Mendelsohn told of his meeting with Saarinen at the University of Michigan:

I traveled in a perfectly-designed bus to Ann Arbor, two hours from Detroit, and was received there by the faculty with Professor Lorch, Saarinen, and Loenberg-Holm. We had lunch and a discussion in German

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111 Erich Mendelsohn to Louise Mendelsohn, October 24, 1924, in Letters of an Architect, 69.
112 Ibid.
113 Mendelsohn, undated observation on Detroit, obviously from same trip, 1924, in Letters of an Architect, 70.
and English. Saarinen is a guest of the faculty for a few months, and is teaching in connection with his projects for Chicago and Detroit. A great joy to meet him. Mutual joy. We spent the afternoon alone together at his house and had a long, friendly discussion. He is a dreamer, a fanatical worker, a creator, clearly aware of where his work stands and hence a friend of the next generation... In the evening at Lorch’s house. He is the head of the faculty, who knows, as an art historian, the whole development of Sullivan and Wright, and reaction and new assault. He would like to create a center for joint advance here at Ann Arbor.\textsuperscript{114}

Mendelsohn’s description of Saarinen as “a dreamer” and “a friend of the next generation” confirms my own analysis of the forward-thinking qualities of his urban planning work and of his status among the most modern architects in the 1920s – Saarinen was viewed as one of them.

After leaving Michigan, Mendelsohn went on to Taliesin, where the German architect met Wright for the first time and reconnected with his former apprentice Neutra.\textsuperscript{115} Mendelsohn was deeply affected by these Midwestern visits. He apparently made another trip to visit Saarinen in Michigan in 1925, writing on September 9th to thank Saarinen for time spent together and regrets at not having been able to spend another weekend in Taliesin with Wright.\textsuperscript{116} From Mendelsohn’s letters regarding both the Detroit and Taliesin visits, and their tantalizing glimpses into his interactions with Saarinen, Neutra and Wright, it is obvious how professionally and personally influential these three architects were on him. One could imagine that the pattern of influence may have gone the other way as well, with Mendelsohn perhaps reinforcing a vision of the future that would arise most clearly in Neutra and Wright’s imagined projects for Rush City and Broadacres.

Saarinen’s popularity at the University of Michigan and his involvement in the Detroit Riverfront planning process led George Booth in the spring of 1925 to appoint Saarinen as

\textsuperscript{114} Erich Mendelsohn to Louise Mendelsohn, October 29, 1924, in \textit{Letters of an Architect}, 71.
\textsuperscript{115} Ibid., November 5, 1924, in \textit{Letters of an Architect}, 71-72.
\textsuperscript{116} Mendelsohn to Saarinen, September 9, 1925, Saarinen Family Papers, Box 2 Folder 3, Cranbrook Archives. At this time I am unable find other verification of Mendelsohn visiting America in 1925.
architect of the Cranbrook campuses and then director of the Cranbrook Academy of Art. This timeline can be established through letters from department chair Emil Lorch to George Booth in the spring of 1925. In the Annual Report of the College of Architecture for Year 1925-1926, Lorch wrote, “We were sorry to lose Professor Eliel Saarinen who had during each of the two preceding years given instruction during one semester,” indicating that the architect left to pursue other professional activities. Booth had been dreaming of an art school and community outside of Detroit for several years, and chose Saarinen to head the planning of the site and to lead the school after it was clear that the Detroit civic center scheme would be put aside for bureaucratic and financial reasons. Saarinen would retain the lessons he learned in this design for future use; David De Long even argues that the 1924 Detroit project should be seen as a link between the Chicago Lakefront plan and Cranbrook, with “an informality and varied vocabulary suggesting a design approach not immediately apparent” in the Chicago design. Cranbrook itself is described in great detail in the exhibition catalog Design in America: The Cranbrook Vision, 1925-1950. Saarinen developed an ordered yet picturesque campus plan for Booth, and designed several different buildings over the next two decades, including Cranbrook School for Boys, Kingswood School for Girls, the Cranbrook Academy of Art, the Cranbrook Institute of Science, and the Cranbrook Art Museum, as well as his own house (Figure 58). Saarinen’s architectural designs blended an arts-and-crafts style appropriate to the landscape (and desired by

117 De Long, “Eliel Saarinen and the Cranbrook Tradition,” 50. Letters as early as October 6, 1924 regarding Cranbrook from Booth to Saarinen indicate the project was already under discussion by this time. By September 1925, Saarinen was fully engaged in the Cranbrook projects: see George Gough Booth Papers, Box 13, Folder 11-13, 21, and Box 19, Cranbrook Archives.
118 Lorch to Booth, February 16, 1925, George Gough Booth Papers, Box 13, Folder 11-13, 21, Cranbrook Archives. Lorch noted the popularity of Saarinen’s Michigan course, and emphasized the stature of the architect within the department by stating that a selective process was underway for the current semester meant to “avoid some of the difficulties of last year when some of the ‘unwashed’ got in.”
120 Rivard, “Eliel Saarinen in America,” 37; Loucheim, “Architect, Artist, Finn, American.”
122 Clark et al, Design in America.
George Booth) with the same angular, stripped-down aesthetic typical of his decorative arts production of the period, such as that on display at the Industrial Art Exhibition at the Metropolitan Museum in New York in 1929.\footnote{Metropolitan Museum of Art, \textit{The Architect and the Industrial Arts: An Exhibition of Contemporary American Design}, February-September, 1929 (New York, 1929). The architects’ committee included Saarinen, Hood, Ely Jacques Kahn, Joseph Urban, John W. Root and others.}

The pedagogical method in Saarinen’s architecture department at Cranbrook from the start consisted solely of urban planning. In the course, each student was given a planning problem, often related to where the student was from. According to Aline Loucheim, Saarinen said during her interview, “I don’t teach: the students learn. We analyze, discuss, talk. We are good friends.”\footnote{Loucheim, “Architect, Artist, Finn, American.”} Saarinen additionally stated that while at the turn of the twentieth century he “thought of city planning as an artistic problem,” over the decades since “it became a technical one – then a social one – then a mental one. You’ve got to change the mentality of the people.”\footnote{Ibid. This may be taken from Saarinen’s \textit{The City}, although I am unable to find exact quote.} These statements show that Saarinen’s holistic, long-term view of urbanism continued to imbue every aspect of his work, from instructing students, to campus design, to his enduring interest in the future city.

Saarinen’s engagement with city planning after he started Cranbrook, while borne out in his archive, has too often been left out of the historical scholarship on the architect’s American career. Just as he was establishing Cranbrook as a central site for art and architectural education in the 1920s and 1930s, Saarinen developed tight personal and professional connections to the American architecture and urban planning community. Through his Cranbrook courses, Saarinen also gave the unexecuted 1924 Detroit riverfront plan a second life as a studio project that generated a stream of revised urban design schemes well into the 1940s. The extensive archival evidence of these myriad examples again confirms my claim for Saarinen’s value as a lens
through which to view American urbanism between the two World Wars. The next section of this chapter will explore several specific events and associations that reflect Saarinen’s deep involvement in the field and his continued propagation of a forward-looking, efficient, technologically advanced and organically whole urban aesthetic.

In 1925, as Saarinen was beginning to design the layout of Cranbrook with George Booth, the architect attended the April 1925 International City and Regional Planning Conference in New York City, organized by the International Garden City and Town Planning Federation. The conference attracted leading American and European engineers and planners, including Harvey Wiley Corbett, Raymond Unwin, and Ernst May, among many others, who heard talks on subjects as wide ranging as “Decentralization within Regions, Arterial Roads, Planning and Plotting of Building Sites, Zoning, and Waterways and Waterfronts.” At the conference, Saarinen was elected vice-president of the group, evidence of his standing within the field. His election was likely based on the strength of his well-publicized Chicago and Detroit projects as well as his European plans, which by the early 1920s had been published in both German and English.

Other archival data that has been virtually ignored in the secondary literature on Saarinen point to his frequent lectures, meetings and committee involvement with the leading individuals and organizations of contemporary American architecture and urbanism. Far from being isolated in the Detroit suburbs, or concerned only with small-scale decorative arts, Saarinen was viewed

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126 See the invitation (January 7, 1925), announcement of the conference, February 27, 1925, Saarinen Family Papers, Box 2 Folder 3, Cranbrook Archives.
128 See Hauser, index of projects, and Christ-Janer, *Eliel Saarinen*, bibliography, 145-146. For example, the Munkkiniemi-Haaga and the Greater Helsinki plans were both published in *Der Städtebau* 7, no. 3-4 (1920): 21-27.
as a key figure for architects undertaking urban design work at all scales, from the architecture studio to the house to the city. For example, skyscraper architects including Walker, Corbett, and Ely Jacques Kahn paid tribute to Saarinen at a dinner held for him at the Architectural League in New York in March of 1931, while the next month he gave a keynote address to the American Institute of Architect’s Convention in San Antonio, Texas. Saarinen was contacted in June of 1933 to inquire about meeting with Arthur E. Morgan, Chairman of the Tennessee Valley Authority to discuss Saarinen’s possible involvement in developing designs “for small houses evolved for Tennessee conditions, using local material and labor almost exclusively.” Like Frank Lloyd Wright would be around the same time, Saarinen was apparently seen as a worthwhile contributor to the TVA industrialization projects that originated from the Muscle Shoals experiments of the 1920s to which Henry Ford had contributed his linear city proposal. A few years later, in 1935, Saarinen corresponded extensively with all the major architecture schools on the East Coast to coordinate a tour of visits that March. Saarinen wrote to the department chairs at the University of Pennsylvania, Princeton, Columbia, Harvard and MIT with hopes of lecturing and meeting with faculty at each school. The purpose behind this trip was ostensibly to build contacts and further publicize the Cranbrook Academy of Art, but the warm responses he received make clear how well-respected Saarinen was, and not only as an art school director. This trip was intended to coincide with the General Electric Architectural

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130 H.L. Freund to Saarinen, June 20, 1933, in Other Cranbrook Academy of Art Correspondence, 1932-1934, Cranbrook Archives.
131 There are several series of letters between architecture department chairs and Saarinen’s executive secretary, Richard P. Raseman, between January and March, 1935, in Cranbrook Art Academy Correspondence, Cranbrook Archives.
Competition on modern housing taking place in New York City the same month. Saarinen had been invited to serve on the competition’s jury.\(^{132}\)

From 1934-1935, Saarinen served as the chair of the AIA’s Committee on City and Regional Planning, and wrote the annual Progress Report in November. This document provides a thorough analysis of Saarinen’s thoughts on urbanism, as well as verification of his interactions with many well-known planners of the day, including his fellow committee members Henry Wright, Clarence Stein, and Ralph Walker.\(^{133}\) In the report and associated correspondence, Saarinen wrote of his concern about the lack of attention being paid by architects to issues of urbanism. “It must be admitted that the architects so far, taken both individually and cooperatively, are very little interested in the planning of cities. This attitude of the architects is clearly enough reflected by the general opinion. It is amazing to discover that, for example, the National Resources Committee and the State Planning Boards do not have architects as members.”\(^{134}\) Saarinen presented three potential solutions: first, “to create a wide spread understanding of the necessity of a comprehensive civic design. For the second: to create the understanding among the members of the Institute, that it is up to them, individually and collectively, to take the development of civic design in their hands. For the third: to influence the educational system in the architectural schools accordingly.”\(^{135}\)

Although the interest in Saarinen’s expertise on housing and educational pedagogy revealed in these myriad letters and contacts may indicate a slight shift from the large-scale

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\(^{133}\) This list of the Committee on City and Regional Planning is contained in a letter sent from Edward Kemper, Executive Secretary of the American Institute of Architects, to Saarinen, August 28, 1935, Pre-1942 Cranbrook – Cranbrook Foundation archives re: city and regional planning, Cranbrook Archives.

\(^{134}\) Saarinen to the president of the American Institute of Architects, a progress report of the Committee on City and Regional Planning, November 25, 1935, Cranbrook Archives.

\(^{135}\) Ibid.
design work that consumed his earlier career, the dual focus on modern technology and community-building inherent to all of these ideas, and to the urban planning studio course he taught at Cranbrook, were no less visionary. During the late 1920s and 1930s, Frank Lloyd Wright was engrossed with the same duality, so it is unsurprising that he and Saarinen became good friends during this period. Although there is no direct evidence that Saarinen’s Chicago and Detroit plans influenced Wright’s Broadacre City, the over-scaled quality, emphasis on high-speed automobile and other infrastructure, and accommodation (even embrace) of future growth common to Saarinen’s projects were also taken up by Wright in 1935. Both men similarly self-identified as urban-oriented architects; both were fully engaged with urbanism from the earliest part of the twentieth century; and both had absorbed the urban planning lessons of Central Europe into their conception of the future American city.

It is unclear as to when they first met, though Wright undoubtedly noticed the publication of Saarinen’s Chicago Tribune Tower and lakefront designs around 1923. In any event, a letter from Erich Mendelsohn to Saarinen on November 4, 1924 corroborates both his visit to Michigan mentioned earlier and Wright’s interest in meeting with Saarinen. Mendelsohn told Saarinen about his upcoming trip to Taliesin, adding, “Mr. Wright asks me to invite you, Mr. Saarinen, to be his guest…” Saarinen’s handwritten notes for a reply state, “I regret to decline your friendly invitation due to another duty. Please express my gratitude to Frank Lloyd Wright our heartiest thanks.” By the end of the decade, at least, the two architects had forged a close personal and professional relationship that continued well into the 1940s. This is made clear in Wright’s autobiography, in which he described traveling by boat to Rio de Janeiro in 1930 with Saarinen, both members of a jury for a competition for a Christopher Columbus memorial

136 Mendelsohn to Saarinen, November 4, 1924, Saarinen Family Papers, Box 2 Folder 3, Cranbrook Archives.
organized by Herbert Kelsey. Wright was the North American representative on the jury, while Saarinen was serving as the European one. Wright’s statement reveals much about the architect’s view of his own career, even as he notes his high regard for Saarinen:

The two great continents, Europe and North America, would see something of each other by way of Wisconsin and Finland. I had always resented Saarinen a little, regarding him as our most accomplished foreign eclectic — a little jealous too of his easy berth, bestowed by the hand of American riches, while I had to wait and work and scrape for mine, the hard way. Yes — I know, this seems pretty small. But our provincials feel that culture comes from abroad if at all, and the importation is looked upon in the provinces, especially at Detroit, with great favor. I suppose they think we can’t have much at home that should be looked up to. But it is only, of course, because they wouldn’t know how to look. Saarinen, the Finnish cosmopolite with the Norse accent, spoiled all that mild ill feeling. We became fast friends and had no basis for disagreement on anything whatsoever. I wouldn’t disagree with Saarinen and he couldn’t disagree with me if he would.

According to Aline Loucheim’s interview, Saarinen and Wright teased each other continually, with Saarinen saying of Wright, “He is a sweet man underneath,” clearly finding joy in joking around with his American colleague. In 1932, Wright even wrote to Saarinen asking for a testimonial or endorsement of Wright’s new Taliesin fellowship program that would help Wright secure funding and publicity. Documentation of Wright visiting Cranbrook is sparse, though archival material shows he made the trip at least once, in 1945. This examination of their relationship is meant to show just how interconnected Saarinen and Wright were at the very moment both were highly involved with urban planning issues, a fact that has not been sufficiently considered in the historical literature on either architect. Saarinen’s urbanism was

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139 Loucheim, “Architect, Artist, Finn, American.”
140 Frank Lloyd Wright to Saarinen, August 30th, 1932, Saarinen Family Papers, Box 2 Folder 3, Cranbrook Archives.
141 George Matsumoto, a student at Cranbrook from 1944-1947, told a story about Frank Lloyd Wright’s 1945 visit to the school. Matsumoto stated, “I think Saarinen was a little nervous about it for Wright’s caustic ways were well known and preceded him to Cranbrook.” George Matsumoto, Recollections of time at Cranbrook, 1997-1999, in the 1995 Saarinen Swanson Reunion File, Cranbrook Archives.
expressed primarily through the pedagogical and regional planning work just described, while Wright delved into it via his Princeton Lectures of 1930, his treatise titled *The Disappearing City* of 1932, and his Broadacre City project of 1935, all of which will be examined more thoroughly in Chapter 5.

Throughout the 1930s, Saarinen received multiple inquiries from journals like *Architectural Forum* and *The Architectural Record* to publish his 1924 Detroit plan; he denied all of these requests, which indicates a view of the project as a work in progress. In fact, the plan would serve as the basis for a decades-long planning process for Detroit’s downtown riverfront, which took place in a number of forms – as supervised thesis projects by Saarinen’s students, through the architect’s own revisions, and in experimental designs by his son Eero. One 1938 thesis project by a student named Walter Hickey involved a “Model for Proposed Water Front Development of Detroit, Suggested Development, Inside Grand Boulevard, and Suggested Layout, Metropolitan Detroit.” The model highlighted the plan’s traffic solutions, especially the riverside highway that would connect to regional and state networks outside of the city, and how the open plaza at the base of Woodward Avenue would cover the railroad tracks and train station. According to the report, the factories and rail yards currently situated near the center of town should be “relocated farther down the river, and housing developments fostered with them. All this would aid in lessening the present traffic confusion.” In June of the same year, Eero Saarinen came up with a somewhat more modernist design for a 30-story municipal

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142 See correspondence from Leonard Cox to Saarinen, December 5, 1935, and A. Lawrence Kocher to Saarinen, December 3, 1934, and responses back denying publication from Saarinen’s executive secretary. Saarinen stated that the project was not finished yet. From Cranbrook Academy of Art Correspondence, 1932-1934, Cranbrook Archives.

143 Among other drawings and photographs in the Cranbrook archives there is Saarinen’s 1937 revision of the riverfront design and a drawing by Eero Saarinen in June 1938 for the Detroit Municipal Building, Cranbrook Archives.

office building for the project at the request of local planners.\textsuperscript{145}

In 1943 another of Saarinen’s students, J. Davidson Stephen, published an article in \textit{Pencil Points} called “Detroit Planning Studies,” a study similarly undertaken as a thesis project. Stephen, with Saarinen’s assistance, projected Detroit population statistics into the future, here up to the year 1990 (Figures 59 and 60).\textsuperscript{146} Stephen determined an expected population of five million, and included maps and images showing regional development to accommodate this growth titled “The Detroit Sphere of Influence: Southeastern Michigan.”\textsuperscript{147} In the introduction to the plans, Saarinen described his own long-held interest in designing an urban core as part of a larger-scale decentralized city that would expand “organically” with growth. Just as in his Helsinki plan of twenty-five years earlier, in Detroit Saarinen’s passion for the rational planning of urban centers, for the decentralization of residential functions, and for comprehensive multi-function transportation systems were made clear.

Saarinen had discussed this concept of “Organic Decentralization” in depth in his recently published treatise on urban planning, \textit{The City: Its Growth, Its Decay, Its Future}.\textsuperscript{148} In the book, he used the metaphor of a spilled puddle of water on a table, splashed by a sudden pressure, to describe the city’s inevitable expansion in the future. Although the water droplets spreading outward seem random, Saarinen stated, the process was actually governed by “an intentionally organized process of energy reactions,” a concept that should be similarly understood to apply to the modern city.\textsuperscript{149} By “organic” it appears that Saarinen really meant “organized” or “ordered,” guided toward the functional interrelationships of how people live and

\begin{flushright}
\textsuperscript{147} Ibid.
\textsuperscript{148} Saarinen, \textit{The City}, 205-213.
\textsuperscript{149} Ibid., 205.
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work by proper study and scientific analysis by planners.

Nearly two decades after he had first designed his plan for the Detroit riverfront, the City Planning Commission made a renewed push to implement aspects of Saarinen’s scheme and the architect became fully embedded in the bureaucratic process. Over the next several years he would serve as primary consultant to the so-called Architects Civic Design Group, headed by Branson V. Gamber, and made several presentations at the Planning Commission’s offices.¹⁵⁰

The Architects Civic Design Group, according to E.A. Baumgarth, took on a variety of projects in addition to the riverfront civic center, including a regional freeway system, a new airport, and the redevelopment of areas near Wayne State University, in Royal Oak, and along North Woodward Avenue.¹⁵¹ In Saarinen’s assessment in *The City* in 1943, high-speed transportation would allow for much more extensive metropolitan growth. His vision of decentralization was controlled, directed “towards a dispersion of the present compactness into concentrated units, such as centers, suburbs, satellite townships…”¹⁵² There would be a comprehensive greenbelt system surrounding these suburban units, but just as in Helsinki and elsewhere, rather than using these small-scale communities to limit growth, in the mode of the garden city designers, Saarinen’s primary focus was on the metropolitan whole, and on the highway and communication networks tying it together.

Additional publicity attended the 1943 publications of Stephen’s thesis and Saarinen’s book. In September, an article for the Detroit News titled “Forty Architects to Prepare Plans for Greater Detroit” appeared, accompanied in the same issue by a notice titled “Architects Study Plans for Building,” that reported on the riverfront plans by the Architects Civic Design

¹⁵⁰ See images of Saarinen at their offices from 1947, Cranbrook Archives.
Group.¹⁵³ E.A. Baumgarth tracked the 1943 developments in two other articles in the Detroit News in late 1943, “Architects Plan Metropolitan Area of 5,000,000” on October 10th, and “The City of 1990” on December 5th.¹⁵⁴ The author emphasized the highway projects as the key means of adapting to the anticipated population growth of southeastern Michigan, which included the cities of Flint, Lansing, Saginaw, Port Huron and Jackson. A month later, James Hosking in the Detroit Free Press Sunday Magazine asked the question: “Can we build a city that will give us health, happiness?”¹⁵⁵ In New York City, meanwhile, the Architectural League held an exhibition from October 11-25, 1943 on Detroit planning using material from Stephen’s “Detroit Sphere of Influence” project; Saarinen himself was a guest speaker on October 14th.¹⁵⁶

Just as with Saarinen’s earlier plans, the continued press surrounding both the Detroit design and the 1943 manifesto on urban planning kept Saarinen’s legacy alive among members of the architecture and planning fields around the world. Saarinen’s archives contain several interesting letters from around 1943-1944 that indicate some of these connections and Saarinen’s active attempt to spread his writings and ideas. The German architect and urban planner Martin Wagner wrote to Saarinen in 1943, stating with admiration that he had been aware of Saarinen’s work since at least 1908 thanks to Hermann Muthesius. Regarding Saarinen’s The City, Wagner, who had designed modernist housing projects for interwar Berlin, wrote, “I agree with [you] on all the principles of what you call ‘organic’ planning and ‘organic decentralization. I use to call the latter ‘de-concentration’ because I think that this word labels better the contrast between the two kinds of inorganic city development: the stupid system of concentration and the as stupid

¹⁵³ Baumgarth, “Forty Architects to Prepare Plans for Greater Detroit. The Detroit News (September 19, 1943).
¹⁵⁴ See Baumgarth, “Architects Plan Metropolitan Area of 5,000,000,” and Baumgarth, “The City of 1990.”
¹⁵⁵ James Hosking, “Can we build a city that will give us health, happiness?” The Detroit Free Press Sunday Magazine (October 3, 1943).
¹⁵⁶ Scrapbook of clippings relating to the Detroit civic center, Cranbrook Archives.
In May of 1944, Saarinen received a letter from Edward Connor, Executive Director of the Citizens’ Housing and Planning Council of Detroit thanking him for a meeting at Cranbrook. “The over-view of Detroit’s problems in city planning which you gave us will be helpful to the Board in realistically determining our program of citizenship education. As you pointed out, there should exist a close correlation between the efforts of planners and the activities of organizations such as this. I am sure that you will find this Council ready and able to work with you in this area of mutual interest – a city plan for the people who live in it.”\footnote{Edward Connor to Saarinen, May 29, 1944, Saarinen Family Papers, Box 2 Folder 3, Cranbrook Archives.} A year later, in February of 1945, Henry Ford II wrote to Saarinen thanking him for meeting and for sending a copy of The City, writing, “I do feel that the work which you are doing will be of great benefit to the United States as a whole, and I am sure that it will make living much more pleasant for all its inhabitants.”\footnote{Henry Ford II to Saarinen, February 4, 1945, Saarinen Family Papers, Box 2 Folder 3, Cranbrook Archives.} These letters, aside from revealing Saarinen’s close relationship to the car manufacturing companies and local bureaucracy, reflect many of the same concepts visible in Saarinen’s 1910-1920s visionary plans. They display Saarinen’s long-standing focus on comprehensive planning, and his belief that high-speed transportation could solve the twentieth century’s most urgent social problems.

Saarinen, Saarinen & Associates designed yet another version of the Detroit plan in 1947 with greater input from Eero. Now, his proposed office tower of 1938 was essentially turned on its side and designed much more in the undecorated style of plain corporate modernism (Figure 61). The plan thus reads more horizontal than the earlier versions, though it retained most of the same functions of a memorial hall, an auditorium and exhibition space, and underground parking garages.\footnote{Photo of Eliel and Eero with the new model submitted to the City Plan commission, in “Civic Center Designed to} This plan also opened up downtown Detroit with a view directly to the Detroit River.
via a waterfront promenade. Construction on the memorial hall began, with a municipal building to follow in 1951, and after one more revision by Eero Saarinen in 1955, over the next two decades many aspects of these later designs were implemented. This very brief summary of the extended life of the Detroit civic center shows just how prescient Saarinen was in 1924; the future-focused impulses of the earlier design remained, if not the specific forms.

Although Saarinen’s obsession with urban planning to the end of his long career is quite evident in his archive, David De Long in the Design in America catalog and other historians have tended to view the plan and architecture of Cranbrook as the pinnacle of the architect’s work in America, characterized primarily by an organic, Sitte-esque organization and Arts and Craft design. By highlighting Saarinen’s middle-career urban plans in Chicago, and Detroit, as well as the continued experimentation in Michigan, this chapter has expanded the analysis of Saarinen to include the quite modern and futuristic elements that have been neglected, and it has tied these interests to his earlier career in Europe. Saarinen’s plans for Reval, Budapest, Canberra, and Helsinki reflected Saarinen’s dual interest in the picturesque and in efficient circulation, drawing primarily on the scientific techniques developed in Central European planning to solve problems that were hardly conceived yet.

Although it appears that Saarinen never fully considered the negative consequences of his urban plans, or the problems inherent to the imposition of large-scale, high-speed road networks onto city centers, his visionary plans are nevertheless significant. The schemes for Chicago and Detroit synthesized early twentieth century European urban planning theory with a practical, forward-thinking understanding of the problems automobile congestion was causing (and would continue to cause) in American cities. Given their widespread publication, and the resulting


personal and professional connections he built among the architectural and planning communities, Saarinen’s hypothetical interventions into the Midwestern urban landscape should be seen as part of an increasingly fervent response to the disordered cities of machine-age America.
The Austrian architect Richard Neutra came to America in 1923 and was just as thrilled and bewildered by American urban life as Eliel Saarinen had been. While Saarinen responded with conceptually visionary but stylistically traditional plans for Chicago and Detroit, the much younger Neutra applied the new forms of Central European modern architecture to a project equally concerned with meeting the needs of the future American city, *Rush City Reformed*. As discussed in Chapter 1, the Vienna Ringstrasse, and its construction process over the course of the nineteenth century, imparted an important influence on the following generations of Austrian architects and urban planners. Although Thomas Hines, in his important biography of Richard Neutra, somewhat neglected this possible impact on the architect’s urbanistic thinking as seen in *Rush City*, Reyner Banham corrected this deficiency in his review of Hines’ book. Banham saw *Rush City* as unique to its American context, yet viewed it in large part “as a continuation of both the Wagner and Ringstrasse traditions,” particularly the plan’s “regularity, modularity, transportation, [and] the need for a new start on a clean site,” if not its relatively unfocused quality.¹ This interpretation of *Rush City* in light of Neutra’s Viennese background is quite similar to the argument in this dissertation, though it will be far more detailed about the concepts underlying Neutra’s urban planning projects and his relationships to principal figures in the field than Banham could be in his brief review. This chapter will emphasize several aspects of Neutra’s urban planning designs and affiliations that have been too often overlooked in the historical scholarship on his career. It will trace the early development of Neutra’s obsession with America immediately preceding and just after World War I, and examine the effects of

Neutra’s most important apprenticeships, with Erich Mendelsohn in Berlin in the early 1920s, and with Frank Lloyd Wright at Taliesin in 1924, on his orientation towards urbanism. Neutra’s Rush City project will be situated in the context of these diverse transatlantic stimuli, and used as a window onto the architect’s long-term engagement with urban planning and infrastructure design in the interwar period. As with Elie Saarinen earlier in the 1920s, and Frank Lloyd Wright in the 1930s, a re-examination of Neutra’s writings, archival drawings and other project documentation shows that the architect’s futuristic urbanism, incorporating high-speed infrastructure and entirely new building typologies, was not purely imaginary. Rather, it was deeply rooted in the Midwestern and Southern California regions in which he worked, meant to relieve congestion and embrace the transportation technology that was already transforming American cities. In a similar manner as Saarinen’s Chicago and Detroit plans, and Wright’s Broadacre City, Rush City Reformed functioned as a repository of ideas for the rest of Neutra’s architectural practice, and reflected a wholly optimistic view of the advent of car culture in America.

Richard Neutra was born in Vienna in 1892, and his early life there was marked by a fascination with the urban infrastructure around him. As he recounted in his autobiography more than a half-century later, he quickly gained an appreciation for the statesmen of Viennese modernism, Otto Wagner and Adolf Loos. Despite the stylistic divergences between these two architects, the larger themes with which each was consumed – Wagner with a vision of a high-speed decentralized metropolis, and Loos with American technology – fused the two figures in Neutra’s mind. These dual influences have been noted in much of the literature on Neutra’s architectural career, especially by Hines and before him, Esther McCoy. As described in earlier

chapters, however, the influence of Wagner and Loos specifically on Neutra’s urbanism has received considerably less attention. This chapter will demonstrate that Neutra’s Rush City Reformed and his many other transportation-related projects were simultaneously based in the German and Austrian planning theory of 1910 and the American city of the 1920s. Just as with Saarinen, New York and Chicago played seminal roles in forming Neutra’s perception of America, and the radical changes to the urban landscape caused by the influx of cars in American cities largely dictated the formal and conceptual basis of the architect’s visionary urban plan. But Neutra was distinct from Saarinen, whom he apparently never met, in being pulled inexorably towards the American West, towards Los Angeles, where his friend Rudolph Schindler had settled while working for Frank Lloyd Wright. Indeed, Wright can be seen as an American counterpoint to the influence Wagner and Loos held for Neutra in Europe, one who would hold an extremely personal, and lasting, influence throughout the mid-1920s and 1930s.

Neutra decided to become an architect at the age of eight after riding Vienna’s new subway system and admiring the stations designed by Otto Wagner. About Wagner, Neutra wrote, “In a very short time I was enamored of him, his buildings and his fights against strong opposition and public ridicule. He was Hercules, Achilles, Buffalo Bill, all rolled in one: he stood for all the heroes and pathfinders… Here was a missionary and one who was breaking with a worn-out past.” The impact of Wagner’s Stadtbahn and other radical changes to Vienna’s urban landscape on the subsequent turn towards visionary planning is described in Chapter 1.

The city was now overlayed with complex networks of transportation and communication that would allow for a new high-speed relationship between center and periphery. As R.E. Petermann noted in 1908, the massive acceleration of life in Vienna around the turn of the twentieth century

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resulted in a new experience of the city in which the constraints of Old Vienna had entirely given way to seemingly unlimited metropolitan expansion. Neutra devoured Wagner’s writings like his 1896 *Modern Architecture*, and studied the machine-engineered flavor of buildings like the Postal Savings Bank. Even though Neutra didn’t know the elder architect well, nor did he study with him, Wagner was a huge presence in contemporary Vienna, an internationally recognized architect Hines calls Neutra’s “most significant early mentor.” Neutra discussed Wagner’s significance to him in detail in a foreword to Heinz Geretsegger and Max Peinter’s *Otto Wagner, 1841-1918: The Expanding City, The Beginning of Modern Architecture*, first published in 1964. There, Neutra referred to the “Viennese enthusiasm” for public transportation systems, and the “absolute obsession with art and architecture” which underlay the massive *Stadtbahn* network Wagner designed. Neutra also commented on Wagner’s “Expanding City” project, the 1911 plan for the Vienna of the future discussed earlier. Neutra argued that Wagner’s visionary plan was frequently misunderstood by planners and historians, and that rather than being a “product of Imperial Baroque,” it instead showed “the way forward through the *fin de siècle* into a new era which…remained unpredictable.” Neutra clearly picked up on Wagner’s tendency toward architectural uniformity, his conception of the city as a comprehensive whole, and his forward-thinking optimism about managing the inevitably expanding city through complex high-speed transportation networks.

Aside from Wagner, Adolf Loos was the turn-of-the-century Viennese architect with whom Neutra aligned himself most. More importantly than any specific writing or theory, Neutra developed a close friendship with Loos in the cafes of Vienna around 1912, and absorbed Loos’

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7 Ibid., 6.
tales of American technology and culture from the three years he spent there in the mid-1890s. Loos spoke often about his impressions of Chicago’s skyscrapers, American plumbing, and other topics. Neutra attended Loos’ frequent lectures and his small informal studio-salon, and even accompanied the elder architect on inspection visits to several of his buildings in progress around Vienna, including the Steiner and Scheu houses. In Loos’ architecture, Neutra wrote much later, he found a “faith in, and almost cult of ‘lastingness,’ as compared with passing fashion. [Loos] was reaching out for some contact with history, to produce this ‘lastingness’ despite the fashions of the day.” This quality of permanence, of ahistorical “lastingness,” is present not just in Neutra’s built work, a fact Hines and others have described, but also in his projects for the future American city.

Even more than through his architecture and writings, Loos in conversation gave Neutra a real sense of American culture. Neutra wrote about the impact of Chicago, and the 1893 Columbian Exposition in particular, on the twenty-one year old Loos, aside from the purely stylistic or technical innovations he saw in the city’s skyscrapers and the exhibition’s displays: “Loos was the first European naturally gifted with creative talent to discover for himself the happy efficacy of the American lifestyle, which he used as the starting point for his work.” In another text from later in his career, Neutra confirmed that Loos was one of the first people to raise his interest in America, stating that even though Loos “had never been more than a night-

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shift dishwasher here, and never even had a draftsman’s job in an architect’s office, … he was the most enthusiastic American I’ve ever met.”¹² As Hines told it, Loos’ belief in the “promise of American life ultimately propelled Neutra to the United States.”¹³

Yet Neutra was also influenced by other architects of the Secession and Wagnerschule groups, including Josef Hoffman, Joseph Olbrich, and later, his friend Rudolph Schindler. Neutra wrote in a 1964 letter that visiting Olbrich’s Vienna Secession exhibition building “was one of the great experiences of my young life,” and that “everyone in my surroundings was aware of the comprehensive effort at Darmstadt,” referring to Olbrich’s artist colony project.¹⁴ While a student at the Vienna Technische Hochschule from 1911-1914 and 1917-1918, Neutra attended many lectures at the Academy of Fine Arts, and was apparently quite aware of contemporary modern architecture, including the experiments with new materials and simplified forms by Peter Behrens, Walter Gropius, and others of the German Werkbund just prior to World War I.¹⁵ In 1912, Neutra met Rudolph Schindler, a slightly older student at the Academy who had studied under Wagner and Loos. Along with the latter two Viennese architects, it was Schindler who paved the way for Neutra’s own career trajectory, towards Frank Lloyd Wright, towards an architecture of new materials and forms, and eventually towards southern California.

American publications had infiltrated the Viennese architecture and urban planning world by the end of the first decade of the twentieth century. Among other information garnered from

¹⁵ Neutra, Diary, Book 1 (June 8, 1912), 125, UCLA Archive. On November 5, 1913, he notes reading the German Werkbund Yearbook, Neutra, Diary, Book 2 (November 5, 1913), 93, translated in Hines, Richard Neutra, 21. A letter to Schindler the next summer indicates Neutra’s great interest in an Academy of Fine Arts exhibition taking place in Vienna then, which contained several of Wagner’s urban design and architecture projects, including the 1911 Plan for Vienna mentioned above and in Chapter 1; see Neutra to Schindler, June 14, 1914, translated in McCoy, From Vienna to Los Angeles, 109.
translations, Neutra read an inaccurate report that Chicago’s trains were electrified around 1904, although it actually did not happen until the 1920s. Nonetheless, he became obsessed with the idea of a clean, efficient city, free of the congestion and smog brought on by a crowded rail system. Neutra knew also of Henry Ford’s pioneering work in the manufacturing of cars. The architect Harwell Hamilton Harris, who served as Neutra’s apprentice from the late 1920s to early 1930s, stated that Neutra looked less to the actual design of the car but rather to Ford’s processes of prefabricated, assembly-line mass production, a method that Neutra tried to emulate in his design work. In addition to hearing about Chicago and about American manufacturing, in 1914, Neutra became aware of Frank Lloyd Wright, whose 1910-1911 Wasmuth publication left a lasting impression on European modern architects. Although the publication’s illustrations at times greatly exaggerated how simplified Wright’s buildings were, and minimized their close relationship to their natural settings, Neutra nonetheless identified Wright’s attention to the American context, even as he continued to hold a romantic, outsider’s view of it. Neutra wrote that Wright in his early career “was creating low buildings with tremendous shading roofs and long ribbon windows like those of the venturesome transcontinental trains which looked out on a free breezy landscape.” Neutra even sketched several examples of Wright’s houses in his diary

16 Neutra, Life and Shape, 174.
18 Hines, Richard Neutra, 22. Neutra wrote to Schindler in June of 1914 about reading Wright’s work, praising Wright’s “ability to be both serious and monumental without stressing symmetry.” See Neutra to Schindler, June 14, 1914, in McCoy, From Vienna to Los Angeles, 109. See also Anthony Alofsin, Frank Lloyd Wright—the Lost Years, 1910-1922: A Study of Influence (Chicago: University of Chicago Press, 1993), 32-33.
19 Neutra, Life and Shape, 173. In a letter to Rudolf Schindler on June 14, 1914, Neutra expressed admiration for Wright’s designs, writing: “I was immediately struck with this man’s ability to be both serious and monumental without stressing symmetry...Sometime please write me your observations on this man who has kept me exceedingly busy for so many hours…” Translated in McCoy, From Vienna to Los Angeles, 109.
the same year. These included the Huertley, Martin, Gale houses in Oak Park, the Dana House in Springfield, and the Darwin Martin House in Buffalo.\textsuperscript{20}

Writing to his mother-in-law in 1921, Neutra described his appreciation of the Vienna of his youth, and the combined influence of Wagner, Schindler, and Wright on his architectural sensibilities.\textsuperscript{21} Neutra said that he considered himself lucky to have “grow[n] up from childhood on in a city where the greatest artist in the architectural world radiated in all directions”:

\begin{quote}
I was too young to be [Wagner’s] immediate pupil, but I imbied a lot most recently through my friend Schindler, who studied with him without being his favored pupil, as he was much too independent… Through this friend I have received information about another genius in our art…. Perhaps it is only a hidden love for my country that keeps me from admitting that Frank Lloyd Wright is the greater artist. But the kinship between these two great spirits remains incredible in this moment in history and they never knew each other; half the earth separated them and both had entirely different antecedents… It is difficult to assess Otto Wagner’s importance and realize that he represented the best in our old cultural life and at the same time achieved a metamorphosis into a real future, into a new world.\textsuperscript{22}
\end{quote}

This attempt to internally synthesize the European and American models for modern architecture quickly turned for Neutra into an obsession with going to America himself, an idea that grew as he corresponded with Schindler throughout the 1910s and early 1920s. Schindler had been similarly inspired by Wright’s work, and left Austria for America shortly before World War I broke out, eventually landing a position in Wright’s office.\textsuperscript{23} In March of 1914, Schindler

\begin{footnotesize}
\footnotesubscript{20} Neutra’s sketches of Wright buildings occur on undated Diary pages, 1914, book 3, p. 93-100, translated in Hines, Richard Neutra, 22. See Hines for further images and analysis.
\footnotesubscript{22} Neutra to Lilly Niedermann, November 9, 1921, Dione Neutra Papers, translated in Hines, Richard Neutra, 43.
\footnotesubscript{23} In his diary in January of 1914, Neutra wrote, “Schindler is going to America in a few days,” which Hines reads as indicative of Neutra’s wistful desire to join him as soon as he finished his degree. This was stopped short by the advent of the war that July. Neutra, Diary, January 5, 1914, book 2, p. 132, translated in Hines, Richard Neutra, 23.
\end{footnotesize}
described to Neutra his “new strange life” in America, and the myriad innovations in building construction and infrastructure he witnessed on first arriving in New York, including the Woolworth Building at 58 stories tall, the Hudson Terminal with 500,000 daily travelers, and the high-speed elevators that facilitated the movement of enormous populations throughout the city.  

Neutra was quite impressed with these vivid descriptions. As he wrote in an article published in 1970, his passion for America had stemmed from an “idealism of following my surge into the future, because I was convinced that the American situation was prototypical, and was really going to be followed in Europe. [I] felt that this industrial tinge of civilization was ahead of us globally, and so I came here to the classical country of it...” Neutra’s faith in America’s architectural and technological innovations, already visible from the vantage point of 1910-1914, drew Neutra away from Europe, and thoroughly informed his visionary conception of the city developed in his Rush City Reformed project and his 1926 book Wie Baut Amerika?.

After spending much of World War I ill in Eastern Europe, Neutra moved to Germany in search of architectural work. After a short stint in Luckenwalde, Neutra found himself in the Berlin office of the architect Erich Mendelsohn in October of 1921. Much has been made in analyses of Neutra’s architecture about the possible influence of Erich Mendelsohn, especially with regard to the latter’s experiments with technology and the streamlined forms, if not the particular curvilinear expressionism. What has not been referenced in any significant way,


24 Rudolf Schindler to Neutra, March, 1914, Rudolf Schindler Papers, translated in McCoy, From Vienna to Los Angeles, 104.


26 For many details of Neutra’s personal life and experience in World War I, see the letters collected in Neutra and Neutra, Promise and Fulfillment.

though, is Mendelsohn’s urbanist outlook, manifested most clearly in the way his commercial buildings of the 1920s are integrated into their settings, and in his numerous business center and other planning projects, starting with the Haifa, Palestine design on which Neutra served as his assistant.28 Mendelsohn’s forward-looking vision of the modern city, replete with new forms symbolizing the speed of modern life, likely played a formative role in Neutra’s own view of the city during the 1920s.

Mendelsohn’s Einstein Tower in Potsdam was heavily publicized in the German language press while it was under construction from 1919-1921, as was his hat factory in Luckenwalde, which was in development just as Neutra joined the office (Figure 62).29 Mendelsohn was immediately impressed by Neutra’s contributions, writing to his wife the next summer that although “it seems to me impossible to find someone who can make additions to my own distinctive vision of proportion… Herr Neutra is at his peak… In Neutra I have certainly the most reliable support.”30 Neutra contributed to several different projects throughout 1922 and the early part of 1923, including a commercial project for Gleiwitz, Silesia, the Mossehaus newspaper building in Berlin, and most relevant for this study, the unexecuted shopping and entertainment center for Haifa, Palestine (Figure 63).31 The plan for Haifa was designed as a collaboration between the two architects, and is especially interesting for its attention to the

28 Mendelsohn described some of his many urban planning projects a speech from the 1940s in America: “In the meantime [i.e. late 1920s], the horizontals of my early sketches and buildings were running round the world. They reach their maximum in this Town Planning Scheme of 1929.” He also mentions a “Development Scheme of the White City” site in London, 1935. Reprinted in Mendelsohn, Letters of an Architect, 169. In the same speech, Mendelsohn also revealed his continued interest in the future American city: “Terrified by [the poor urban planning] of our beautiful land, you will the more welcome the great parkways, the new lake fronts, the rehabilitation projects and master plans of our cities to come – the future of a free America, noble in her principles and her visual manifestations.” In Mendelsohn, Letters of an Architect, 174.

29 Neutra did drawings and models for the Luckenwalde project while in Mendelsohn’s office. See Hines, Richard Neutra, 32.

30 Mendelsohn to his wife Luise, June 22, 1922, in Mendelsohn, Letters of an Architect, 56. Mendelsohn spoke quite highly of Neutra throughout that summer, mentioning him in letters of July 30, 1922 and August 6, 1922, also in Mendelsohn, Letters of an Architect, 57-58.

31 Hines goes into great detail about the debate over how much Neutra contributed to the Mossehaus project, and determines that Neutra likely was responsible for the curved corner section. Hines, Richard Neutra, 33-34.
region’s desert climate and topography, two issues close to Neutra’s heart.\textsuperscript{32} The business district was situated by the sea, and made of spare low-slung concrete buildings combining several functions, including offices, a playhouse, bazaars, hotels, and apartments.\textsuperscript{33} Although the project was not executed, the plan was a comprehensive and stylistically unified urban district that might recall, on a smaller scale, Wagner’s plans for Vienna.

That Mendelsohn had built up a reputation as an urbanist is borne out in a tantalizingly brief description of a project proposal he received from a group of Los Angeles planners to design a development plan for that city in July of 1922. Mendelsohn wrote to his wife that he and Neutra “want to take up the California business at once, provided a corresponding publication comes out of it. The matter can become the outlet for town planning problems, which in the last analysis are the aim of building. I intend to do that in common with him, in order to bind him in the best possible way, more or less as a collaborator…”\textsuperscript{34} Although Mendelsohn never followed through on the American project, the fact that Los Angeles planners were considering Mendelsohn at the same time as the city was undergoing such massive population growth and transportation shifts mentioned in Chapter 2, and that Mendelsohn was tempted by this offer, reveals much about the German architect’s propensity towards visionary urbanism. Neutra may very well have absorbed a view of the city as a site for experimentation from Mendelsohn and this hypothetical plan.

By 1923, the novelty of working with Mendelsohn had worn off for Neutra, though he continually referred to the German architect as a “great artist.”\textsuperscript{35} Partially because of personal

\textsuperscript{33} “Wettbewerb Business Centre. Haifa. 1923.”
\textsuperscript{34} Mendelsohn to his wife, July 4, 1922, in Mendelsohn, \textit{Letters of an Architect}, 57.
\textsuperscript{35} Richard to Dione, from Berlin, August 1922, in Neutra and Neutra, \textit{Promise and Fulfillment}, 71.
conflicts with Mendelsohn over compensation and a non-compete restriction that left him unable to gain outside design work of his own, and partially because of the severe economic conditions in post-World War I Berlin, Neutra renewed his efforts to leave Europe for America. Neutra read *The Nation* and *The New Republic* magazines, and his friend Frances Toplitz even sent *The Nation* a letter to the editor Neutra had written that indicated his mindset towards America during this period of turmoil in Europe. Neutra wrote, “[Y]our sharp criticism of conditions in your country does not lead us to value your country any less. On the contrary we marvel that it brings forth so much self-criticism. Our fatherland is weak in that today…”

Until August of 1923, when a peace treaty between the United States and Austria was finally concluded, Neutra had no way to legally enter the country without a waiver, a process he pursued with great vigor throughout the early 1920s with the assistance of Toplitz and other Quaker contacts in the American legal world. According to Thomas Hines, the pacifist reputations of these lawyers and intellectuals actually impeded Neutra’s chances in the eyes of immigration officials more than he likely realized at the time. The State Department twice rejected Neutra’s visa application by the end of 1920 and he bitterly wrote Dione that it was senseless for him, an Austrian, to have to sacrifice for “this German escapade.” In any event, Neutra’s visa situation was resolved by September of 1923, just as he was reaching a boiling point in his frustrations with Mendelsohn and the lack of opportunities in Berlin.

In October of 1923, Neutra set sail for America, landed in New York, and immediately wrote to Dione about his impressions of the city. These letters, as well as his autobiography, give

37 See the extensive correspondence between Neutra and Schindler on the topic between 1919 and 1924, in McCoy, *From Vienna to Los Angeles*, 104-140, and Hines, *Richard Neutra*, 42.
not only a fascinating peek into Neutra’s first experiences with contemporary American culture, but provide also a highly evocative window into his inner thoughts and his loving relationship with his wife. Neutra joined the offices of C.W. Short and Maurice Courland, and continued to work on independent projects, including a design for a Jewish Library in Jerusalem for Hebrew University, and Rush City Reformed. 39 In December, he wrote:

I surely do not know any other city that is so picturesque [as New York], not even Vienna, Hilbersheim, or Prague. For decades, this city has been, is in constant motion, changing its profile. Out of the growing mass the inner core rises always higher, floods gigantically along the riverfront into the open countryside. With frantic speed, the express subway trains take 2.5 hours to cross the city, stopping only at every fourth or fifth station. 40

Neutra wrote about spread of the city and surrounding centers, and the various modes of transportation, including the subway, the ferries from New Jersey, the Hudson Tunnel, and told of wandering around the Gramercy and Irving Place neighborhoods. Despite the separation from his wife, Neutra maintained the optimistic view towards the future he had developed under Mendelsohn, writing to Dione, “[T]here is not much danger that I ever lose the faith in the future development of life, which cannot be separated from building and constructing. But if I am a creative architect, I hope I shall find, too, the attitude of a philosopher with regard to the part I can contribute to the progress with all my power.” 41 Just as Saarinen did in 1922, and Wright in the late 1920s, Neutra gained inspiration from the haphazard planning and high-speed transit of New York. Neutra embraced the vitality of New York while rejecting its problematic

39 Promotional brochure of the Jewish Library committee (which included Albert Einstein and other international Zionist figures), in Hines’ personal collection. Cited in Hines, Richard Neutra, 46. For a description of his uninspiring and often mean employers, see Richard to Dione, November 1923, in Neutra and Neutra, Promise and Fulfillment, 99; for a description of life in New York, see Neutra, Life and Shape, 173-174.
40 Richard to Dione, December 1923, in Neutra and Neutra, Promise and Fulfillment, 104-106. Neutra to Dione, October, 1923, in Neutra and Neutra, Promise and Fulfillment, 98.
41 Richard to Dione, November 1923, in Neutra and Neutra, Promise and Fulfillment, 101.
inefficiencies and historical eclecticism, creating instead a far more comprehensive and stylistically cohesive plan for a limitlessly expanding car-oriented city of the American West.

Throughout the winter, Neutra’s longing for the West Coast, for a better life, punctuated his letters. He wrote Dione in December of 1923 as he traveled around the city on his way to work, “I repeated inwardly twice and in some kind of a commando tone, joyfully:

‘CALIFORNIA CALLS YOU.’ This is the way you will jump onto the boat that will carry you to California, I thought to myself. The words ‘California calls you’ I had seen and read on a lighted advertising sign on Zurich’s main street. I kept it in my heart as a suggestive formulation…”

Schindler encouraged Neutra to join him in Los Angeles directly, writing that he believed Los Angeles could provide an easier start to an independent career for a newcomer than the older eastern cities. Even so, Chicago still seemed for Neutra like the appropriate intermediate stop; he hoped to visit Wright’s and Louis Sullivan’s buildings, and perhaps meet with the elder architects. Although Schindler also noted that Wright’s work had seemed to dry up in both the Midwest and at his office in Los Angeles, telling Neutra, “I hardly think he has work for you at the present time. Your architectural past is hardly of interest to him, which you would understand once you worked for him,” Neutra ignored Schindler’s cynical warnings and made his way to Chicago by February of 1924.

First staying in Jane Addams’ Hull House before finding more permanent accommodations in Highland Park on the North Shore and employment at the firm of Holabird and Roche, Neutra described to Dione the realities of contemporary Chicago just a year after

42 Richard to Dione, December 1923, in Neutra and Neutra, Promise and Fulfillment, 6-7.
44 For Neutra, Chicago was “the important center for the new architecture. It seems I have, as usual, to convince myself with my own eyes and have to pay my apprentice premium… [A]s far as I am concerned I can readily see that the time to settle down has not yet arrived and that I have to acquire more knowledge about the minutiae of our profession in order to gain a better overview…” Richard to Dione, February 1923, Dione Neutra Papers, translated in Hines, Richard Neutra, 48.
Saarinen experienced the same. It was far different from the spare landscapes depicted in the Wasmuth publication:

When your grandfather was born, this city was as big as Stafa. Now it tops Paris, even with regard to the number of inhabitants. Only an idiot could expect that it could also have the same cultural importance and strength of Paris, instead of keeping his mouth shut and being overcome with awe by this phenomenal development… where now, during lunchtime, half a million automobiles confront each other, cows used to graze. It is the truth! An evil smelling cover of gasoline fumes hovers over this land. The automobiles are much worse than the skyscrapers and the phonographs. One must observe this evil to learn how to cope with it. May the devil snatch away the benefactor of the people – Ford. His agents accept a down payment of $100. Gasoline is a passing childhood disease… Also workmen or small children are killed by cars every day. Automobiles and newspapers are the greatest scourge in this young country that changes by the hour.\(^{36}\)

Over the next couple of years, perhaps driven by his embrace of American technology and machine-age culture, Neutra’s perception of automobiles would dramatically shift. He eventually began to view them as the very mechanism by which the congestion and dangers of the modern American city could be resolved. Cars and highways would become integral pieces of a complete, multi-faceted, regional transportation network, and serve much the same function as the Vienna railways of his youth. Likely impacted by the radical changes to and myriad architectural debates over the planning of Chicago’s lakefront in the early 1920s, mentioned in Chapters 2 and 3, Neutra’s Rush City Reformed is a significant example of a visionary response to the interwar American city that involved not a wholesale rejection of the car, nor the segmentation of population into small-scale suburbs, nor a completely vertical fantasy. Despite his critique of automobile traffic and the gasoline-fogged landscape of Chicago, he would soon

\(^{36}\) Neutra to Dione, March 1924, in Neutra and Neutra, Promise and Fulfillment, 116. For an extensive description of Chicago, and how it failed to meet his expectations see Neutra, Life and Shape, 174-181.
embrace the car and high-speed, horizontal infrastructure as a solution to these problems, and as a way to hold a dispersed metropolis together as a cohesive unit.

While in Chicago, Neutra took advantage of his limited free time to visit the buildings of his American heroes Sullivan and Wright, although he noted in his autobiography, “There was no real rural America around most of Frank Lloyd Wright’s buildings. The initial majority of them were built just within the suburban sprawl of a fast-growing metropolis…”

Neutra managed to meet Sullivan himself in the weeks prior to his death in May 1924, through a mutual friend of Schindler and Sullivan’s, Ralph Fletcher Seymour. Neutra wrote a vivid description of the squalor in which Sullivan lived at the time, and his own continued respect for the American architect, to his wife in April: “[Sullivan] is lying a little when he writes hopeful articles about the future….Holabird and Roche impress him. Once they were equal to Sullivan and Adler. Now Sullivan is a poor fellow, remembered only in the world history of architecture… Sullivan looks pale and dried out. On Michigan Boulevard he asked the driver to close the window.”

It was at Sullivan’s funeral that Neutra finally met Wright. According to Neutra, when Wright returned from the West Coast to Chicago, he was gossiped about and harassed by the media and the public, largely due to the scandals that had made him infamous there. Nonetheless, when Wright invited Neutra to come work for him at Taliesin, Neutra accepted, and by September he, Dione and their son Frank (named after Wright) were situated in Wisconsin.

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47 Neutra, *Life and Shape*, 176. See also Neutra to Dione, April 1924, in Neutra and Neutra, *Promise and Fulfillment*, 120.
51 See letters from Dione Neutra to her parents, July 1924; Neutra to Frances Toplitz, August 1924; and Wright to Neutra, September 1924, in Neutra and Neutra, *Promise and Fulfillment*, 129, for details about Neutra’s contact with
further developed Rush City, a project he had begun in his spare time in Berlin. Although it is impossible to follow the exact patterns of influence with regard to their urbanism, given that both men pursued visionary planning and prolifically wrote about cities, transportation, and machine production in the years following their brief collaboration, it seems likely that Neutra and Wright found common ground on these subjects.

In November of 1924, Neutra wrote a letter to his mother-in-law that revealed his deeply personal relationship to Wright as a mentor and friend. “He is the greatest living genius, as far as I am aware of… When you experience Wright, you may have an inkling of Bernini. However, a hundred Berninis cannot help you to comprehend one modern, suffering genius filled with pregnant ideas for the future.”\(^52\) The same month, Mendelsohn visited Taliesin while on his tour of America. After meeting with Eliel Saarinen in Michigan, the German architect arrived in Wisconsin and immediately made a mark on Wright, Neutra, and Neutra’s family. Neutra wrote to Frances Toplitz that his mother-in-law, who was staying at Taliesin with them, “did not like Mendelsohn, and I am afraid you would not like him either. However, he has some good qualities although he is apparently not on the side of a true effective building art. Wright was rather against him, but surely received an exuberant impression of Mendelsohn’s creative vitality.”\(^53\) Thomas Hines read Neutra’s descriptions of Mendelsohn’s visit as indicative of a poor relationship to his former employer, but a renewed look at this letter and others by Neutra, as well as Mendelsohn’s letters about the same trip, show that although Neutra viewed Mendelsohn’s work as largely fantastical, he, Mendelsohn and Wright had much admiration for one another and many shared interests (Figures 64 and 65). Of Wright, Mendelsohn wrote, “we

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\(^{52}\) Neutra to Lily Niedermann, November 1924, in Neutra and Neutra, *Promise and Fulfillment*, 129-130.

\(^{53}\) Neutra to Frances Toplitz, November 1924, in Neutra and Neutra *Promise and Fulfillment*, 130. See also Hines, *Richard Neutra*, 55 for a long description of this visit.
were friends at once, bewitched by space, holding out our hands to one another in space… We understood one another at once, like brothers. A verbal hint is all the explanation we needed.”

According to Mendelsohn, “[Wright] spoke at once about my work. ‘Original, powerful – the future.’ … His opinion – and I think Neutra’s as well – that I am perhaps more of a sculptor than an architect, more of a modeler than a builder, could at once be easily refuted, and later again in the sketches I had with me.”

Much later, Neutra would write that it was only due to his translating that Mendelsohn and Wright, neither of whom knew much about the other’s work or national architectural traditions, quickly became friends: “These two ingenious and worthwhile people began to love each other at two o’clock in the morning, and by four o’clock they were life-long friends! … I deeply sensed the really important gifts of the one man as well as the other. And I felt that there was a common denominator, if you dropped or molded some superficial remarks.”

In any case, Mendelsohn, with his forward-thinking view of modern cities, and contact with all three architects in this study, should be seen as a key connector, if not a model, for the futurism inherent to Neutra and Wright’s plans for American cities.

As for actual design work while Neutra was at Taliesin, there was apparently very little except for a few works in progress, including a metal and glass skyscraper headquarters for the National Life Insurance Company of Chicago, and a spiral automobile-lookout project for Gordon Strong of Sugar Loaf Mountain in Maryland. The so-called “automobile objective” is a noteworthy project for two reasons. First, it reveals a moment of common investigation into the possibilities of car transportation. Secondly, it was an utterly speculative structure that became a

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54 Mendelsohn to Luise, November 5, 1924, in Mendelsohn, Letters of an Architect, 71-72.
55 Ibid., 72.
57 McCoy, From Vienna to Los Angeles, 48. The skyscraper was sponsored by Albert M. Johnson, a wealthy client of Wright’s who commissioned several projects during the 1920s that were never executed. See: Anne Whiston Spirn, et. al., Frank Lloyd Wright: Designs for an American Landscape, 1922-1932 (New York: Harry N. Abrams, Canadian Centre for Architecture, the Library of Congress, and the Frank Lloyd Wright Foundation, 1996).
site for experimentation in construction, form and function on the parts of both Wright and Neutra. The Gordon Strong design represented a key test of “drive-in” architecture that would reappear in their later projects, Neutra in his subsequent shopping center projects and the Rush City transportation hubs, and Wright in a variety of structures found in Broadacre City. While Wright traveled back and forth between Los Angeles and Taliesin in December of 1924, Neutra drew floor plans, sections and elevations for the structure, which had been originally conceived by Wright with his input. The observatory was made up of a sleek set of curvilinear vehicular ramps, pedestrian walkways, and parking spaces surrounding a large assortment of restaurants, shops, bars, service areas, and other amenities. Wright would later add a planetarium to the building’s myriad functions, but the basic feeling of Neutra’s early studies remained. According to Thomas Hines, “nothing in Wright’s oeuvre before that time would have predicted the observatory’s streamlined circular forms – features and qualities of a decidedly Mendelsohnian stamp, which Neutra… may well have imparted to the scheme.”  

The design for car parking and the ascending and descending ramps were somewhat advanced of contemporary parking garage design, but the drive-in access to facilities and the efficient car storage solutions nonetheless reflect the project’s clear engagement with the major transportation problems of the day, and indicate possible solutions.

Although this work satisfied him, as 1924 turned to 1925, Neutra again set the wheels in motion towards California, where he saw more possibility for an independent career. Dione explained to Frances Toplitz that Neutra felt “an urge to follow an inner calling, and he always profited a lot in wandering and looking around while working in different places.” The Neutras left Taliesin in February. Once in California, they lived with Schindler at his house on King’s

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58 Hines, “Designing for the Motor Age,” 42.
59 Series of letters between Neutra, Frances Toplitz, and Dione, in Neutra and Neutra, Promise and Fulfillment, 135.
Road and traveled extensively around California after they got a car in 1926, viewing nearly all of Wright’s buildings and discovering the work of Irving Gill, who had apprenticed alongside Wright in Sullivan’s Chicago office. The vast changes to the urban landscape discussed in Chapter 2, including the suburban housing boom and the disjointed attempts at regional planning that had occurred since 1920 were readily apparent to him. Shortly after arriving in southern California, Neutra wrote, “[America] is a country of constant flux. It has the majesty of a building site, the majesty of possibilities, at most, if you want to make an attempt to juxtapose their majesty with historical Europe. Europe has possibilities too, but here there is nothing else if one looks sharply.”

The sweeping changes to urban infrastructure and sense of possibility evident in both Chicago and Los Angeles must be seen as the context in which Neutra conceived of his Rush City designs and his prolific writing on architectural technology over the next decade. Although the archival drawings for the early stages of Rush City are largely undated, making it impossible to determine precisely which were completed when, it is clear that by the time of his 1926 publication Wie Baut Amerika? at least, Neutra had already conceptualized several complex infrastructure projects like the “railhead Rush City” and the “air-transfer” that reflect his recent experiences of the American city.

Neutra worked for a series of architecture firms in Los Angeles to pay the bills, all the while working on Rush City and several other projects, some in collaboration with Schindler, on his own time. In his correspondence and statements about this period in the mid-1920s, Neutra’s attitude was marked by a combination of sheer ambition and continued frustration at the difficulties of developing a full-fledged architectural practice. Dione described Neutra’s daily routine in August of 1925 to Frances Toplitz, writing that he woke up at 5am to spend an hour or

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60 Regarding Irving Gill, see Neutra, Amerika 49-50; Hines, Richard Neutra, 59-60.
61 Neutra to Frances Toplitz, April 1926, in Neutra and Neutra, Promise and Fulfillment, 148-149.
two on his own projects, and that he was somewhat depressed because of his lack of time and connections, and the uninteresting work he was doing for his day job. Neutra himself wrote to his mother-in-law in September, “I simply cannot find any free time to work for myself, or I have to battle for every 15 minutes of free time... My brain really works constantly at full capacity. The country with all its shortcomings provides an unbelievable wealth of learning material for anyone who wants to understand the present world situation.” The following year, Neutra compiled his observations on American construction methods and his project for Rush City to that point, in the book *Wie Baut Amerika?* Neutra’s Chicago experiences, his early conception of Rush City, and his role as a draftsman at Holabird and Roche, where he worked on the Palmer House Hotel project, would form the basis of the publication.

Neutra told Henry Robert Harrison in 1937 that he developed both of his books while commuting to work, *Wie Baut Amerika?* by train in Chicago, and *Amerika: Die Stilbildung des neuen Bauens in den Vereinigten Staaten* by car in Los Angeles. His wife’s parents coordinated the publishing process for *Wie Baut Amerika?* in Europe, and he wrote to his mother-in-law about his intentions with the book: “I illuminate the problems that were created by unclear questions [rather] than give solutions and recipes which cannot flow from one single brain but from an all-encompassing mentality. Even so, I try to give solutions in various sectors – traffic solutions, solutions for skyscrapers, for small dwellings... This, and the formulation of existing problems, gives this book its value.”

The book described American architecture, urbanism, and construction practices from an immigrant’s point of view, and for a European

62 Dione to Frances Toplitz, August 1925, in Neutra and Neutra, *Promise and Fulfillment*, 141-142.
63 Neutra to Lily Niedermann, September 1925, in Neutra and Neutra, *Promise and Fulfillment*, 143.
65 Neutra said in an interview, “My first book I wrote on my knees in commuters’ trains... The second book I thought out at the steering wheel – I was motorized then – driving an old Franklin from one end of a decentralized metropolis to the other, wherever my jobs were located.” Neutra, quoted in Henry Robert Harrison, “Richard J. Neutra: A Center of Architectural Stimulation,” *Pencil Points* 18 (July 1937): 411.
66 Neutra to Lily Niedermann, August 1925, in Neutra and Neutra, *Promise and Fulfillment*, 141.
audience. Neutra’s book represented, according to Esther McCoy, a “systems approach to architecture,” a much more specific analysis of the intersection of architecture and engineering than Le Corbusier’s slightly earlier Vers une Architecture.\textsuperscript{67} Wie Baut Amerika? is especially significant for its focus on the impact of American transportation technology like automobiles and electric trains on the urban fabric of Chicago and New York, and for its illustration of his own Rush City. The elucidation of Neutra’s own views of American architecture and planning are important background to the complex imagery of this visionary plan.\textsuperscript{68}

\textit{Wie baut Amerika?} was divided into three sections. The first described the general problems of contemporary American cities, and made suggestions for solutions in the areas of traffic congestion, transportation terminals, zoning laws, and other building regulations. Neutra used Chicago’s Palmer House Hotel as a case study of tall, steel construction serving multiple commercial and recreational functions in order to analyze “in general, the composite multipurpose downtown structure.”\textsuperscript{69} The second section of the book consisted of a review of Neutra’s other work at Holabird and Roche, and the last dealt with a variety of innovative construction methods and new materials found in the west coast modernism of Schindler and Wright, and described the appropriateness of these methods for different building types like factories and markets. Neutra included in this part detailed descriptions of Schindler’s Pueblo Ribera houses in La Jolla, and several of Wright’s concrete-block residences around Los Angeles.\textsuperscript{70} Of this latter segment, Henry-Russell Hitchcock would write, “One can only hope that

\textsuperscript{67} McCoy, From Vienna to Los Angeles, 53.
\textsuperscript{68} Neutra, \textit{Wie Baut Amerika}? 1927. (Reprint, Munchen, Germany: Kraus-Thomson Organization GmbH, 1980).
\textsuperscript{69} Neutra, \textit{Life and Shape}, 195.
such attractive modern designs are really practical and possible in the suburbs of ‘Rush City,’” which provided illustrations throughout the text.71

Rush City as conceived by 1926 consisted of several different elements, including an “Elevated Business Center,” a “Transfer” from train to road traffic, a “Speed Traffic System,” and a “Reinforced Concrete Store and Office Building” (Figures 66 and 67).72 Many of the drawings are illustrated from an oblique aerial perspective, as if observed from one of the airships populating the city’s skies. From a stylistic standpoint, Neutra’s myriad designs are typically set within simplified, decontextualized landscapes, unified by their stripped-down, decoration-free aesthetic. The orientation throughout is horizontal, with sleek lines that whip across the drawings in an echo of the high speeds inherent to the future city.73

The population of one million was distributed in what was essentially a linear city, or “ribbon development,” emanating from a downtown center that would hold upwards of a million people (Figures 68 and 69). For Frank Lloyd Wright in Broadacre City, the ribbon developments of Rush City would prove critically important as a model for dispersing population on a large scale, as Chapter 5 will describe. Neutra later highlighted the fact that his downtown design was “completely elevated over an equally complete bottleneck-proof and well-distributed traffic parking level.”74 In the plan, the linear spine was to consist of “axial development for regional production, administration, distribution,” a “[s]peed traffic system eliminating level crossing,”

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72 Neutra, Wie Baut Amerika? 9-11, 73; this timeline is somewhat difficult to confirm due to the many undated illustrations and documents in Neutra’s archive at UCLA. See also Alexandre Persitz, “Rush City Reformed (Proposed),” Architecture d’Aujourd’Hui 16 (May-June 1946): 9-10; Hines, Richard Neutra, 60-61. On the genesis of Rush City, see Neutra, Life and Shape, 217-218. I’m using Persitz’s English translations of the titles throughout.
74 Ibid.
and basement-level parking garages. Intersections were thus free of grade changes, transit was separated into through- and local traffic types, there were large multi-functional terminals, and speed of travel was the primary goal. Cars, for Neutra, were a fact of modern life, and combined with other modes of high-speed transit, they could help solve the traffic problems associated with the “fantastic population growth” he foresaw.

A monumental “transfer” station would connect train lines to a local subway system as well as highways, and in a later iteration discussed below, to an airport. The “transfer” was referred to as such in order to reflect its function as a switch point between modes of transit, rather than an end point, or “terminal.” This station, also termed “Railhead Rush City” in *Wie Baut Amerika*, was a flexible, multi-use transit nucleus, joining local bus and subway service with commuter trains on different levels (Figures 71 and 72). The station was conceived to allow for increased capacity in the future. For example, the subway could accommodate 16,000 passengers per hour in both directions at the current rate of five-minute train frequency, but could easily adjust to accommodate 40,000 passengers per hour at a two-minute frequency. Additionally, the platforms themselves were designed to be long enough to allow for larger trains and increased usage. Neutra’s use of statistical projections and a specific concern for designing transportation hubs to accommodate increases in population well into the future as part of an expanding city thus holds much in common with Wagner, as well as with Eliel Saarinen, who similarly found these techniques appropriate to the context of America in the 1920s.

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77 Regula Fybel Thorston, Neutra’s sister-in-law and secretary, collected notes and a translation of Rush City, Neutra Archive, UCLA: Thorston, “Compiled from notes on Rush City Reformed, 1923-1975,” Neutra Archive, UCLA, 5. According to Neutra, Rush City’s suburban transit system held a capacity of 125 normal trains and twenty high-speed long-distance trains, while the subway in peak hours would serve up to 40,000 passengers.

Rush City was intended as a solution for the urban congestion of downtown business districts, especially the convergence that occurred during rush hour periods. In the main business center section of the plan, Neutra raised the pedestrian and store levels to the second and third stories, well above the disruptions of automobile traffic and parking below. Public elevators near street intersections would serve these upper levels. These downtown areas of Rush City were made up of long narrow bands rather than a centralized “nucleus,” easily accessible to traffic entering the district on the major arterial roads, and interspersed with large parking garages. As Rush City developed over the course of the late 1920s, the “business center” became the model for smaller-scale developments along the highways adjacent to residential zones. The highways themselves were sunken within landscaped greenbelts, free of the intersections that typically backed up traffic, and accompanied by the fewest possible local access roads radiating off into the neighborhoods. Neutra’s fascination with high-speed transportation was not just for speed’s sake, but for the purpose of creating a supremely efficient system. He would write in his 1954 treatise Survival Through Design about the impact of infrastructure on the individual user: “If we wish to redesign traffic so as to eliminate irritations and thus aid survival on a neural level, we must never forget that through our senses we actually experience only the accelerations, retardations, and stoppages… An overall harmonization, an elimination of stoppages and bottlenecks, is, from a neuro-physiological point of view, much

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79 Thorston, “Compiled from notes on Rush City Reformed,” 1. Thorston wrote, this congestion “manifested itself in the aggregate of traffic vehicles invariably converging at distribution and production centers, and last but not least, at the entrances to our wonderful multi-story parking garages, where hundreds of cars are handled by one man at the switchboard,” although Neutra knew that “in themselves, they are no cure-alls.”

80 Thorston also notes that “wind direction and topography play, of course, their roles” in the plan, a reflection of Neutra’s long-standing interest in landscape and environmental issues. See Thorston, “Compiled from notes on Rush City Reformed,” 4.

more urgently needed than mere increase or facilitation of speed.”

The layout of the surrounding parallel lines of housing and industrial zones, separated by green spaces, allowed for a far more psychologically pleasing environment for residents, creating easy access to both their workplaces and to outlying natural areas.

The residential neighborhoods with interspersed greenbelts lined both sides of the sunken highways, each center with a mixed population of 22,000 settled in high- and low-rise housing zones differentiated by family size and with slightly different educational and recreational facilities according to its specific demographic makeup (Figure 73). Just as Saarinen (and the Central European planners before him) had applied statistical analysis to his urban growth projections, Neutra used mathematical formulas and population projection tables to calculate the proportional division of each zone, and to determine the quantities of electric current, water, and sewage that would have to be accommodated. Attached to the residential areas were low-level industrial zones and commercial services like car repair and building supply shops, grocery stores, and drive-in shopping centers. The detailed studies reveal a somewhat more human-scaled urban design than the spare style of the vast overhead views and schematic perspective drawings.

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84 Thorston, “Compiled from notes on Rush City Reformed,” 2, 4. In Neutra, *Survival Through Design*, 343, the architect made the case for a scientifically based understanding of traffic flows and how a city operates, for testing and research, which was readily apparent in his early planning experiments in Rush City.

Neutra depicted Rush City as a visionary, futuristic plan that would stand the test of time and achieve something like Loos’ ideal of “lastingness,” yet it was simultaneously embedded in the urban planning context of 1920s America.\(^{86}\) It was meant to solve the traffic congestion and other inefficiencies of contemporary cities by emphasizing multi-level infrastructure systems and transit hubs. The dark and dispiriting jumble of older cities like Berlin and New York gave way to a more hygienic, ordered, and vastly quicker pace of life achieved through automobile and other high-speed transportation.\(^{87}\) Harwell Harris wrote that Rush City was Neutra’s “exhibit of technology put to rational use in behalf of man. In it each design is part of a larger design,” a total environment that could ease the human experience of modern life.\(^{88}\) In his autobiography, Neutra portrayed the plan in some ways as a precursor to urban renewal, as a stimulant for the many planning and redevelopment projects in which he became involved later in his career.\(^{89}\) Yet on a larger scale the project retained many of the architectural and planning concepts promoted by Otto Wagner at the turn of the twentieth century, including a generally uniform building style and roof height, separation of traffic types, and a high-speed transportation network made up of the most advanced technologies of the day. Despite Rush City’s appearance as a collection of separate studies, if taken as a whole as Neutra originally conceived it, the project becomes a comprehensive system of metropolitan development that preserves a civic identity and essentially urban character for a rapidly growing population.

*Wie Baut Amerika?* and the Rush City Reformed designs embedded within it were quite well received in the architecture media of Europe and America. According to Henry Robert Harrison, Neutra’s book provided critical data and illustrations of the new technology, and gave

\(^{88}\) Harris, “AIA Gold Medal Award,” 10-11.
\(^{89}\) Neutra, *Life and Shape*, 217-218.
a sense of American cultural life on the whole, “open[ing] the eyes of a scornful Europe to the potential design fertility of a country with all of the raw materials and the systematic methods so essential to modern building.”\textsuperscript{90} Henry Russell Hitchcock wrote an important review of \textit{Wie Baut Amerika?} for the English-language press that reflects a perceptive understanding of Neutra’s visionary aims, and also his own biases towards the white-box European modernism that he would promote as MOMA curator. Hitchcock emphasized Neutra’s discussion of the Palmer House hotel and the new standardized concrete and steel construction technologies, and he described some of Neutra’s suggestions for handling the overwhelming traffic congestion in downtown Chicago, which included the distribution of parking facilities and the combination of functions into large commuter rail stations. Nevertheless, Hitchcock viewed Neutra’s conception of an urban plan made up of a concentrated city center surrounded by outlying low-rise residential and cultural buildings as more of a reality in mid-size cities like Hartford or Cleveland than in New York or Chicago. Hitchcock associated what he saw as Neutra’s regulation of the urban fabric into a “logical organism” with contemporary European planning, and attempted to insert Neutra into the small group of architects, including Wright, Le Corbusier, and Oud, among others, who were “convinced of the relationship between modern design and materials.”\textsuperscript{91}

A favorable review in the Los Angeles journal \textit{City Club Bulletin} called Neutra’s book “an interpretation of modernism and its expression in architecture… an affirmation and optimistic estimate of modern American civilization and architecture,” and praised its promotion of technology and mass production to meet the modern city’s new economic and social

\textsuperscript{90} Harrison, “Richard J. Neutra,” 411.
\textsuperscript{91} Hitchcock, “Review of Wie Baut Amerika,” 594-595.
conditions. This review, published anonymously, was confirmed by Thomas Hines to have been written by Pauline Schindler, who was undoubtedly influenced in her review by prior knowledge of Neutra’s ideas and her close personal relationship to him. Like Harrison and Hitchcock, Schindler’s comments are typical of the critical reception of Wie Baut Amerika? in their alignment of Neutra’s technical advancements in construction and traffic planning with the future of American urbanism.

In 1927, through Rudolf Schindler, Neutra met Dr. Philip Lovell and was eventually awarded the commission for his so-called Health House. Around this time, Harwell Harris, Gregory Ain, and Raphael Soriano became Neutra’s main apprentices and contributed both to the Lovell design and to the further development of Rush City Reformed, even as Neutra and Schindler worked together in a short-lived enterprise called Architecture Group for Industry and Construction (AGIC). Harris discussed his relationship to Neutra and his role in the visionary project in a speech delivered as Neutra was given an AIA award in the 1970s, stating that Neutra returned to Rush City after completing the drawings for the Lovell House but still had relatively little work. By 1929, Neutra and his apprentices turned towards developing an ideal airport, the “Air Transfer Rush City,” for the Lehigh Portland Airport Competition of 1929. Although Neutra’s airport plan was never executed, in its scientific attention to solving the transportation problems well into the future, the project was a successful application of the visionary vocabulary of Rush City to a new context.

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92 Anonymous [Pauline Schindler], “Review of Wie Baut Amerika?” City Club Bulletin (July 30, August 6, 1927).
94 Much more on the Lovell project and subsequent falling out between Neutra and Schindler can be found in Hines, Richard Neutra, 75-79, and McCoy, From Vienna to Los Angeles, 55-73.
95 Harris, “AIA Gold Medal Award,” 8.
96 Hines and Kappe, interview with Harris, September 16, 1976, cited in Hines, Richard Neutra, 100; McCoy, From Vienna to Los Angeles, 56.
Harris in his AIA address described the collaborative relationship between Neutra and his apprentices on the Lehigh Portland project for an ideal airport, or “Air Transfer,” and the integration of this new typology into the larger whole of Rush City (Figures 74). Harris said, “the fact that we knew practically nothing about something-nobody-else knew-anything-about-either had something to do in making this my great learning experience. We had to plan for what we didn’t know, what we could only imagine, surmise, project by analogy.” The Air Transfer was located in the greenbelt area surrounding the central zones of the ideal plan for Rush City, and consisted of large airplane loading bays connecting rail and road traffic to the city and metropolitan region. The Air Transfer project apparently met the correct government-mandated standards of contemporary airports, with the space requirements for plane storage, passenger facilities, and access roads dictated by landing and take-off capacity calculations. Rather than a passenger entering a grand concourse in the manner of a monumental rail station, in the airport passengers were delivered by rail or car to the specific waiting room of each plane, with a separate level entirely for shops and restaurants. Indeed, the Rush City Air transfer was meant to create “the closest possible intercommunication of rolling and flying transportation by reducing to a minimum the time consumed by change of vehicle.”

Neutra described how the project fit within his conception of the city as an interrelated whole in a 1930 article titled “Terminals? – Transfer!” which was accompanied by several

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97 Harris, “AIA Gold Medal Award,” 8. See also Harris, “Ein Amerikanischer Flughafen.” Die Form 5, no. 7 (April 1, 1930): 184-185.
98 Thorston, “Compiled from notes on Rush City Reformed,” 5.
100 Neutra, “Rush City Air Transfer – a Condensed Description.” See also: “Flugverkehrs-Umschlaghof Rush City, ‘Rush City Air Transfer,’ 1927, 1-5, Neutra Archives, UCLA.
illustrations.\textsuperscript{101} For Neutra, the primary requirement of traffic flow was the effective circulation of vehicles within the city. Because modern cities are constantly growing, “[for] the modern traveler, a long distance trip has to bring him not to an ultimate destination but to a link within a well arranged regional transportation system.”\textsuperscript{102} Neutra decried the inefficient connection between air travel and regional traffic, arguing that “speed and fluidity in the transition from air to ground vehicle is what is needed more than a \textit{grand court d’honneur} in front of an airport.”\textsuperscript{103} A section drawing of the concourse shows a multi-layered structure made up of undecorated exposed metal and concrete, with car traffic running along the bottom level, waiting rooms on the second, and a train or monorail at the top (Figure 75). Neutra’s statements, and the published drawings, encapsulate his division between the old model of “terminals,” or end points, and the new model of “transfers,” or junction points. In a “transfer,” travelers move seamlessly from ground transportation to airplane, and vice versa, rather than being forced to stop moving, as in a traditional central railhead station. Much like Wagner in Vienna, and Saarinen in his plans for Chicago and Detroit, Neutra’s Air Transfer, quickly subsumed into the larger plan for Rush City, reflected a vision of the city as an ever-expanding entity, whose growth could be efficiently managed through scientific analysis of use patterns, the integration of new transportation types, and a concern for designing on a scale that would meet the needs of the future population.

At the same time that Neutra was experimenting with Rush City and developing his Air Transfer design in the late 1920s and early 1930s, in his personal life he maintained a close relationship to Frank Lloyd Wright, who still kept an office in southern California; his sons John

\textsuperscript{102} Neutra, “Terminals?” 99.
\textsuperscript{103} Neutra, Terminals?” 99-100. Neutra’s thoughts on airport design were quite likely informed by the recent construction of two large Spanish Revival airport terminals serving the Los Angeles area, the Grand Central Air Terminal in Glendale (1929) and the United Air Terminal in Burbank (1930).
and Lloyd had also embarked on careers in the area. The close relationship between Neutra and Wright is clearly evident in the correspondence between Neutra, his wife and in-laws, and Wright throughout the late 1920s. Dione wrote to her mother in July of 1927, for example, about visiting Frank Lloyd Wright at his house in La Jolla, while in 1929 Wright corresponded with Neutra about the Lovell House, which he heard about from his sons.104

The fact that Neutra and Wright’s friendship coincided with their common professional interest in urbanism strongly suggests the possibility of stylistic and theoretical connections between Rush City and Broadacres that have been neglected in the historical analyses of both projects. Both architects held a similar concern for the overcrowding that characterized the older cities of Europe, New York, and Chicago. This was manifest in Wright’s lectures at Princeton in 1930, and his book-length diatribe on the topic, *The Disappearing City*, in 1932.105 Neutra went so far as to state in a later essay that his career-long interest in urbanism had been rooted in a belief that “[n]ature’s established sense of mutual distance between individuals is so basic to our makeup that deviations from this norm are threatening. In response, we become edgy, or worse, when we are involuntarily crowded for any length of time. Among other things, this is simply against the grain of our innate volitional character…”106 Neutra’s “ribbon developments” along the outstretched highways of Rush City were formally quite similar to the linear city model that Wright would extend across the country in his design for Broadacre City, which will be analyzed in more detail in the next chapter. Conceptually, Wright’s visionary plan was a rejection of the congestion endemic to the modern American city, and it similarly embraced cars as the solution to this problem. Broadacre City also contained multiple modes of high-speed transportation

infrastructure, a highly integrated relationship with the American landscape, and a variety of new building types like drive-in gas stations that seem drawn directly from the ideas propagated in Neutra’s plan.

Aside from the continual additions to Rush City Reformed, which also included designs like the Ring Plan School and further examples of housing, Neutra was involved in a wide variety of other projects that reveal his deep engagement with urbanism over the course of the late 1920s and 1930s. These include his continued writing about American construction technology, AGIC’s plan for a civic center in Richmond, California with Carol Aronovici in 1929, Neutra’s involvement in the CIAM 3 conference in Brussels in 1930, multiple designs for “drive-in markets,” and bus designs for the White Motor Company in Cleveland in 1931. These projects have too often been examined as discrete minor events, rather than as a collective project to solve contemporary urban problems. More than just signaling Neutra’s interest in automobile transportation, these unexecuted projects taken together show Neutra to be a visionary urbanist at heart, a mindset that informed the rest of his architectural production during this period.

As mentioned earlier, Neutra expressed great admiration for American prefabrication processes on display in the Midwest in Wie Baut Amerika? In that publication, he used Chicago’s Palmer House Hotel project, and other tall office buildings, as examples of how these technologies could be applied to skyscraper architecture of American cities. Harris claimed that Neutra’s interest in prefabrication and standardization preceded the architect’s time in Chicago, and in fact dated to his fascination with Henry Ford and American technology around 1910.

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107 As in Hines, “Designing for the Motor Age,” for example.
108 Harris, “AIA Gold Medal Award,” 11. According to Harris, Ford “was more amazing to Europeans than to us who saw in him our own features. In our minds, standardization of design and interchangeability of parts did not lead inevitably to a machine dominated civilization. Americans were already at home with machines and machines
Ford’s own interest in linear city planning, his so-called “75-Mile City” for Muscle Shoals, Alabama, from 1922, should also be seen as a key link between Saarinen, Neutra, and Wright, as will be described in the next chapter.\(^{109}\) By the end of the 1920s, Neutra was able to experiment with these technological innovations himself in buildings like the steel-framed Lovell Health House (Figure 76), and wrote prolifically about the role of technology in architecture and urban design. As he noted in his autobiography, for Neutra, the American appetite for construction technology “would provide the opportunity and give rise to cautious research which would usher in a beneficial, growing, wholesome industry, especially in the field of building supplies, and would… foster modern architecture as no other could.”\(^{110}\) By associating industrial materials and advanced construction methods with a progressive view of modernism, Neutra seems to have translated the techno-centric theories of Mendelsohn, Mies, and Le Corbusier in Europe to the far more resource-rich context of machine-age America.

Indeed, Neutra examined this concept in detail in an article, “Architecture Conditioned by Engineering and Industry,” in 1929, as well as in his 1930 book *Amerika: die Stilbildung des neuen Bauens in den Vereinigten Staaten*. In the article, Neutra used his illustration “Design for Store and Office Building” to argue that a building’s local context and availability of certain industrial materials or manufacturing technology should determine architectural style.\(^{111}\) The book also contained a short history of Chicago School architecture and the office practices of large architectural firms of the Midwest, like Holabird and Root in Chicago, and Smith,

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\(^{110}\) Neutra, *Life and Shape*, 190.

Hinchman and Grylls in Detroit. Neutra described his relationship and professional interest in Louis Sullivan’s career, told the story of his own discovery of Irving Gill, and highlighted Gill and Wright’s many innovations in architectural technology in southern California, such as their use of concrete and textile-block construction, respectively. Throughout these discussions, Neutra argued that architects should use the most advanced construction methods available to them, and design flexible buildings that take advantage of these methods. According to Neutra, “by abandoning rigidity and single-purposeness,” buildings could achieve “lasting use,” a concept of permanence over time through which Neutra had earlier found common ground with Adolf Loos, as mentioned previously in this chapter.

Neutra’s 1930 book also contained a section on urbanism that showed several before and after photographs of New York and Chicago’s accelerated urban development since the late-nineteenth and early-twentieth centuries, as well as images of advanced building techniques (Figures 77 and 78). These photographs show not only his continuing fascination with these subjects, but also his belief in the connection between planning, architectural design, and building technology. Neutra explored these concepts around the same time in several unbuilt projects designed for his AGIC partnership with Rudolf Schindler. An especially relevant one was for a civic center for Richmond, California, near San Francisco, in 1928. This plan, completed with the help of the planner Carol Aronovici represented a turn to more traditional, practical planning, rather than the largely hypothetical kind found in Rush City. Aronovici, a

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112 Neutra wrote, “[T]he big architectural office, [when] I came here, was greater than anything that existed or even could be imagined in the old country. I wanted to, and later did, thoroughly test the mammoth cluster of drafting rooms…” See Neutra, Life and Shape, 199.

113 Neutra, Amerika, 46-49.


115 See Hines, Richard Neutra, 73. For more on AGIC, see McCoy, From Vienna to Los Angeles, 53. One of their successful projects was the Jardinette apartment complex: “The Garden Apartment House,” Christian Science Monitor (July 12, 1928).
friend of Schindler’s from Chicago, had been involved in an earlier scheme for the city that was soon out of date due to massive population and economic development during the 1920s. The city council requested that he design a new plan, and he asked Neutra and Schindler to assist with land planning issues and to develop designs for a new city hall, auditorium and library, all of which were stripped free of the usual ornamentation of monumental civic buildings.\(^{116}\)

Neutra executed many of the drawings for the plan. The civic center was to be located on an area of five acres fronting the main traffic avenue but separated from the city’s central business district (Figure 79). The primary goals of the plan were the “[n]on-interference with the general flow of traffic,” a separation and distinct building typology for the different civic functions, and, interestingly, “removal from the street and park of all parking having to do with the actual work of carrying on the city’s business. Underground parking for official cars” was provided for, as well as walkways for pedestrian traffic connecting all the buildings.\(^{117}\) Esther McCoy argued that the futuristic modernism of Schindler’s early work or Neutra’s Rush City was here replaced by a European-style formalism in the layout that “would have puzzled [Adolf] Loos.”\(^{118}\) Yet the underlying aim of the project was very much directed towards the future. The city council had requested a new plan that would be capable of expanding as the city’s needs changed over time; indeed, the prospectus stated, “we are now living in a mechanical, rational, abstractly imaginative age and our architecture should bear the imprint of that age.”\(^{119}\) The definition of the modern age for Aronovici and AGIC was a visionary one.

Another angle through which Neutra experimented with some of the ideas promoted in Rush City in the later 1920s was the so-called “drive-in market,” a type of shopping center with

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\(^{117}\) Ibid.

\(^{118}\) McCoy, From Vienna to Los Angeles, 53.

\(^{119}\) Aronovici, et. al., \textit{Civic Center Design for Richmond, California} (Richmond City Planning Commission, 1930).
dedicated access roads from surrounding streets and with parking incorporated into the site plan. Although these types of shopping centers would become ubiquitous in suburbs all over America by the second half of the twentieth century, in the 1920s they were an entirely new typology meant to ease the congestion of downtown commercial centers.\textsuperscript{120} In 1929, Willard Morgan wrote about the conditions in Los Angeles that motivated business owners to move to the less clogged areas in outlying neighborhoods. Local business owners complained about the effect of traffic jams and insufficient car storage facilities in the downtown areas of modern cities like Los Angeles, and began to look for solutions on the suburban edges of the city. High traffic areas with few signal stops, on level sites, could provide businesses with far more customers, who could commute efficiently by automobile between downtown, the shopping center, and home with barely any effort.\textsuperscript{121} In one instance described by Morgan, a grocer set up a new store along one of the busiest roads in the region, which allowed for instant access by the 10,000 cars that passed by daily and apparently resulted in a profitable business.\textsuperscript{122} Compared to the sidewalk-facing stores of traditional commercial centers, the ease of access and parking proposals projected in the new drive-in markets were intended to make the shopping process more efficient.

Neutra designed at least three distinct versions of a drive-in market, and developed the concept further in drawings for Rush City Reformed. In 1927, in collaboration with Schindler as AGIC, Neutra developed the “Coulton Theater and Commercial Center” project. The shopping center and entertainment facility was designed with an Art Deco flavor not unlike that of Frank

\textsuperscript{121} Morgan, “A Place to Park,” 61.
\textsuperscript{122} Ibid., 58.
Lloyd Wright and Lloyd Wright in the early 1920s (Figure 80). The project contained an underground parking garage referred to as a “drive-in portal.” In 1929 Neutra published a design for the so-called Dixie Drive-in Market for Lexington, Kentucky, which embodied more closely than his previous designs to the building type Willard Morgan had depicted (Figures 81 and 82). The main building contained several floors of office space above the stores, and had a large outdoor parking lot in front lined with smaller scale stalls for open-air produce markets. The site was located at an intersection of two major roads along the quickest route from downtown to the main residential sections. As Neutra said in his description of the shopping center’s various functions, which included restaurants, drug stores, laundries, and a gas station, “[the] layout provides for future development. It is not strictly limited to a drive-in market.”

The renderings of the Lexington drive-in market, with its central off-street parking lot surrounded by market stalls and a multi-story tower reflect Neutra’s decade-long interest in exploring how automobile transportation should dictate the design of urban environments.

Another drive-in market by Neutra for Los Angeles consisted of a semicircular arrangement of stores with glass awnings and a central unit with restrooms, a gas station, and automobile repair garage (Figure 83). The market roofs extended out over the parked cars in the scheme, such that it was possible for customers to actually order their purchases directly from their cars. To Morgan, Neutra’s shopping center, and the typology in general, really acted like “living billboard[s]” that would “attract the attention of the thousands of passing motorists long before they actually drive into the market,” an idea that Neutra himself promoted in his

123 Hines, “Designing for the Motor Age,” 42. Hines argues that Neutra was likely responsible for this project, not Schindler.
125 “Dixie Drive-in,” 331-332.
126 “Proposed Drive-in Market, Los Angeles,” Architectural Record 65 (June 1929): 606.
Neutra even incorporated a band of illuminated, colorful, and “attractively lettered” signs directing customers to the various shops, an idea that may speak to the influence of Mendelsohn’s well-lit commercial architecture in Berlin. Neutra was thinking about architecture as advertisement, decades before Robert Venturi and Denise Scott Brown would explore similar themes in their writings on Las Vegas.

In 1930, as his European counterparts had already begun to do, Neutra suggested to his apprentices that they form an American chapter of CIAM and theorize ways to apply their urbanism on a global scale. Harwell Harris believed Neutra wanted the competitive stimulation of architects like Gropius, Oud and Mies; in any event, the chapter application was accepted and Neutra’s office completed several studies to be presented at the CIAM 3 conference in Brussels, which took as its theme land planning, population density, and the spatial organization of housing. First the Americans developed low-cost housing plans, and diagrammed a “minimum existence correlation chart” that was meant to compare the efficiency of their designs to the European ones, based on family size, cost, quantity of space, and proposed rent for residents.

In preparation for the Brussels conference, each of the national CIAM chapters additionally submitted a development plan for one of their major cities according to the organization’s principles, which involved most importantly the large-scale rationalization of the chaotic modern

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127 In an interview, Neutra said, “In working out the plans of this market, I have been able to incorporate a number of important features which are of direct appeal to the busy motorist who is anxious to make his purchases in attractive surroundings and with the greatest speed. The first impressions of the prospective customer should be extremely favorable toward the store or market where he intends to stop. This fact becomes even more important during the traffic congested hours along all the main outbound arterials of the city. Consequently I have provided a spacious well lighted drive-in market which is effective in its sales appeal during the day or night. There are no front supporting columns to interfere with the full vision of the entire market displays. Practically every display may be seen long before the motorist actually swings in to the motor-in market.” Neutra, in Morgan, “A Place to Park,” 59.

128 Morgan, “A Place to Park,” 59-60.

129 Banham, “CIAM,” Encyclopedia of Modern Architecture, 70-73; CIAM, Rationelle Behausungsweisen Ergebnisse des 3 Internationalen Kongresses für Neues Bauen. (Brussel, November 1930) (Frankfurt Am Main, 1931); Karl Moser and Siegfried Giedion, ‘Invitation on 3e Congres internationaux d’Architecture moderne,’ translated in Hines, Richard Neutra, 96-97, located at the Getty Research Institute, Santa Monica, California.

130 Harris, “AIA Gold Medal Award,” 9.
Neutra chose to re-plan Los Angeles as imagined in 1950. As Harris noted, “In 1930 the year 1950 was so remote and shrouded in mists one could imagine anything possible.” In the downtown of this Los Angeles plan of the future, much like in his earlier Rush City designs, twelve-story structures were elevated and allowed the ground level free for automobile transportation. Stores were located on the second and third story levels, lined with elevated pedestrian walks that apparently served as bridges to cross streets. Roads carrying through-traffic ran under other streets. According to Harris, “Radial and circumferential boulevards, together with surface and sub-surface rails, linked together the central and outer city and the air transfers linking them with other cities.”

At the conference itself, Neutra participated in design panels where he got the chance to explain Rush City Reformed. Le Corbusier’s and Neutra’s conference papers both reiterated the points made in their earlier books on urbanism, although Hines saw in Neutra’s call for combining both low- and high-rise buildings into a comprehensive regional plan a far more pragmatic idea than Le Corbusier’s idealized high-rise towers emerging isolated from park-like settings. Along with the specific plan, Neutra emphasized the innovations in construction technology underlying the tall buildings then populating major American cities, just as he had in his two books. Neutra’s plans for CIAM were eventually absorbed into the Rush City project, which by the 1930s had become the primary outlet for Neutra’s unexecuted urban design work.

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132 Harris, “AIA Gold Medal Award,” 9.
133 Ibid., 10.
134 See: Neutra, “Hoch-, Mittel- und Flachbau unter amerikanischen Verhältnissen,” in Rationelle Bautenweisen; an undated document provides a detailed description of Rush City in German, and the applicability of Rush City to CIAM, Folder 26, Neutra Archive, UCLA.
Neutra completed a lengthy trip around the world in 1930, which, in addition to the Brussels CIAM conference, also included a stopover at the Bauhaus. Neutra arrived back in New York in December, under much improved circumstances in comparison to his visit seven years earlier. Due to his myriad efforts at self-promotion in the years prior, now Neutra was able to get meetings with a variety of important figures in the architecture and urban planning world, though he was still underemployed in actual design commissions. Among others, on his visit to New York between December 1930 and January 1931, Neutra met the critic Lewis Mumford, and the architects Raymond Hood, Ely Jacques Kahn, Joseph Urban, Ralph Walker, and Buckminster Fuller, writing to Dione, “Here in New York, I have seen an immense array of people who are successful all around...I am admired here, in the middle of New York...” On January 4, 1931, Neutra gave a lecture sponsored by a design group called “International Service of Art to Industry,” and over the next few days delivered three more on the occasion of the opening of Joseph Urban’s auditorium at the New School for Social Research. According to Neutra later, at the New School lectures he met Joseph Hudnut, to whom Neutra mentioned Walter Gropius coming to America, thereby claiming a role in the development of the American Bauhaus tradition. The lectures were titled, “The Relation of the New Architecture on the Housing Problem,” “The American Contribution to the New Architecture,” and “The Skyscraper and the New Problem of City Planning.” In the talk on skyscrapers, Neutra sharply criticized the uneven distribution of new building around the city. In particular, he raved against the consolidation of tall buildings in downtowns like New York’s Financial District while lower-scale building sites

136 Richard to Dione, January 1931, Neutra and Neutra, Promise and Fulfillment, 201. 
137 Neutra was apparently so broke that he wrote to Dione that his fee for the lecture “will be $150.00, which is a godsend. My financial calculations regarding my stay in New York were somewhat naïve...Richard to Dione, December 1930, Neutra and Neutra, Promise and Fulfillment, 200. 
138 Neutra, “Epoch,” 61; Neutra, Life and Shape, 258.
that could have helped disperse the population and thus ease urban congestion remained available and unused in the city’s poorer districts.\footnote{His presence in New York received prominent coverage in the \textit{New York Times} and the \textit{New York Post}, the latter describing him as “the new type of Viennese. You will not find his like in the pages of Schnitzler or Herman Bahr. A lean, long-faced zealot, he is full of feverish energy and has very little of his countrymen’s once-famous Gemutlichkeit,” cited in Hines, \textit{Richard Neutra}, 98. Dione Neutra discussed these lectures in an interview with Lawrence Weschler, April 10, 1978, Oral History Program, UCLA, 168. See also: “Richard Neutra Lectures Tonight,” \textit{New York Times} (January 4, 1931), and Neutra \textit{Life and Shape}, 258.}

While Neutra was in New York, he met the MOMA curator Philip Johnson and was soon introduced to his father, the lawyer Homer H. Johnson of Cleveland, Ohio. The elder Johnson was a large shareholder of Alcoa, the aluminum company that was partnering with the White Motors Company to design a new long-distance bus. Johnson apparently wanted to bring in an outside designer onto the project, even though Neutra himself admitted that once again, he had entered a transportation design project knowing virtually nothing about the specific typology. Nevertheless, he could not pass up the large fee and extravagant living situation at Johnson’s private club in Cleveland.\footnote{Neutra, \textit{Life and Shape}, 259-261; Hines, “Designing for the Motor Age,” 39; Hines, conversation with Dione Neutra, January 25, 1979, and Philip Johnson to Neutra, December 11, 1930, Dione Neutra Papers, cited in Hines, \textit{Richard Neutra}, 99.} The design itself was not overtly radical, just slightly ahead of contemporary design and certainly not as aesthetically innovative as the somewhat later bus designs of Norman Bel Geddes. The rear of the bus had a slightly upswept turn, and its forms were simple and free of any excess ornament (Figure 84). Neutra wanted to create a streamlined shape, a “Pullman of the highway,” that was still acceptable to the corporate client and the public; indeed, he wrote to Schindler, “Do not believe [that] great departures from the normal will be admissible.”\footnote{Neutra to Schindler, January 14, 1931, Schindler Collection, cited in Hines, \textit{Richard Neutra}, 99-100.} Nevertheless, the bus was never manufactured, probably due to the resistance of the higher-ups at White Motors to a standardized, prefabricated design, and the worsening Depression.

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The technological and conceptual aspects of the project in which Neutra was so engaged were yet another manifestation of his longstanding interest in the technology of transportation. For Neutra, the bus design project was incredibly intellectually stimulating, allowing him to become an authority on automobile design notwithstanding his lack of previous knowledge. He wrote to his wife, “I achieved excellent results in my talk with the directors of the greatest motor bus manufacturing company of America. I spoke like a book, like an experienced sales expert…explain[ing] [the project] with the greatest success,” despite the recalcitrance of his clients.\textsuperscript{142} A 1932 article by Arthur Millier in the \textit{Los Angeles Times} described the ramifications for American construction inherent in Neutra’s aluminum bus designs. Millier saw common ground between the lessons Neutra learned in Cleveland and the exploration of prefabrication and high-tech construction materials in his California houses.\textsuperscript{143} Indeed, in proceeding through the intensive research necessary to develop his bus designs for White Motors, which included studying travel patterns and performing competitive analysis on the vast array of unique bus types manufactured by other companies, Neutra realized that the difficulty of standardization inherent to bus design was similar to the problematic issue of standardization in modern residential architecture.\textsuperscript{144} Neutra’s experimentation with prefabrication and the imagery of high-speed transportation clearly informed his built work in the 1930s, such as in the concrete, steel, and modular wood-frame structure of the VDL Research House of 1932 (Figure 85) and Mosk

\textsuperscript{142} Richard to Dione, from Cleveland, December 1930, in Neutra and Neutra, \textit{Promise and Fulfillment}, 194. See also a letter from Neutra to Lily Niedermann, from Cleveland, December 1930, in Neutra and Neutra, \textit{Promise and Fulfillment}, 194-195 that discusses his creative process and his joy in developing the designs.\textsuperscript{143} Arthur Millier, “Problems of Bus Design Told: Difficulties of Standardization in Motor Carrier Industry Reviewed by Local Architect in Explaining Mass-Production Home,” \textit{Los Angeles Times} (October 9, 1932): 19. Neutra himself elaborated on this topic in autobiography, writing that the bus commission “proved a splendid training in planning prefabrication, also of units not on wheels.” Neutra, \textit{Life and Shape}, 261.\textsuperscript{144} Millier, “Problems of Bus Design,” 19.
House of 1933 (Figure 86), and perhaps even in the streamlined forms of the Von Sternberg House of 1936 (Figure 87).\textsuperscript{145}

As the 1930s progressed, Neutra gained more and more commissions leading to built work, including the above-mentioned houses and other small-scale examples. In March of 1935, Neutra participated in the GE “Home Electric” competition, the same competition at Rockefeller Center in which Saarinen sat on the jury. Along with Saarinen, the jury included several key figures in contemporary American architecture and urbanism, including Ralph Walker, Ernest Grunsfeld, Jr., Charles Killam, a representative from Good Housekeeping Magazine, and others.\textsuperscript{146} The competition called for small house designs; in the Class D division entered by Neutra, the program was for a house for a family of four with two cars and a maid.\textsuperscript{147} Neutra’s design won a second prize, and consisted of three bedrooms and a similar attention to industrial materials, economical styling, and integration of light and landscape via roof terraces and large glass walls as his contemporary Los Angeles residences (Figure 88). In these ways, the competition represents not only an interesting connection point between Neutra and Saarinen, but again reflects Neutra’s clear understanding of the ramifications of drive-in architecture, his faith in technology, and his exploration of how to make modern life more efficient.

Despite the shift towards housing as he became more established, Neutra would continue to participate in competitions and otherwise experiment with urban planning and automobile architecture for the rest of his career. In 1940, for example, Neutra developed a model for an “Open-Air Parking Garage” for a central business district. In this garage plan, costs and climate dictated that cars would be transported through a simple ramp system to the upper levels, all of which were open-air. The garage was to be constructed using a welded steel framework and non-

\textsuperscript{145} Hines, “Designing for the Motor Age,” 42.
\textsuperscript{147} Ibid., 33.
insulated exterior shell.\textsuperscript{148} Neutra also designed several larger-scale projects, many with Robert Alexander. These include the “Maiquetie Center,” a shopping center for a small town 30 minutes outside of Caracas, Venezuela in 1950, the “Elysian-Park Heights” urban renewal project in Los Angeles in 1950-1952, and a redevelopment plan and a civic center with underground parking facilities for Sacramento in 1955.\textsuperscript{149} In \textit{Life and Shape}, Neutra wrote extensively about his understanding of urbanism from the vantage point of 1964, arguing for high-quality planning, for “shape,” as the solution to unrestrained growth.\textsuperscript{150} Neutra’s views on this topic moved in a similar direction as Eliel Saarinen’s after World War II, toward a much more biological, organic conception of regional development and a reconsideration of the appropriateness of high-speed transportation.\textsuperscript{151} These later projects exceed the scope of this dissertation, but deserve further historical analysis for the same reasons as his earlier experiments in planning. The urbanist element of his career was far more critical to his design aesthetic and point of view as an architect than has typically been noted, even in the extremely thorough biography by Thomas Hines. Rather than just acting as a minor story to the main event of his built work, Neutra’s decades-long interest in the problems of modern cities, and the vast collection of experiments populating Rush City Reformed, were in fact driving forces behind his entire career.

As shown in this chapter, the array of influences underpinning Neutra’s long commitment to urbanism reflect, as with Saarinen, the translation of German and Austrian city planning innovations to the rapidly changing built environments of machine-age America. In particular, Otto Wagner, Adolf Loos and Erich Mendelsohn were highly significant to Neutra’s fascination with urban infrastructure, American culture and technology, and his ambition to design plans for

\textsuperscript{148} Boesiger, in Sack, \textit{Richard Neutra}, 133.
\textsuperscript{149} Ibid., 159-164.
\textsuperscript{150} Neutra, \textit{Life and Shape}, 315-319.
the future metropolis. Neutra’s long personal and professional relationship with Frank Lloyd Wright in Chicago and Southern California, and their common passion for resolving the overwhelming congestion of modern American cities through high-speed transportation and planned decentralization, solidified Neutra’s Rush City formulations, which in turn may have inspired Wright’s own Broadacre City project less than a decade later.
CHAPTER 5

*Frank Lloyd Wright’s Broadacre City*

In a 1935 article in *Architectural Record* that accompanied the display of his Broadacre City at the Industrial Arts Exposition at Rockefeller Center, Frank Lloyd Wright wrote, “Given the simple exercise of several inherently just rights of man, the freedom to decentralize, to redistribute and to correlate the properties of the life of man on earth to his birthright – the ground itself – and Broadacre City becomes reality.”¹ This statement begins the most concise description of Wright’s ideal vision of the city to date, a vision he had refined over the previous five years but only now, in 1935, turned into physical form. For the last twenty-five years of Wright’s career, Broadacre City would act both as a manifestation of his social, political, and economic beliefs, and as a site of experimentation for new types of buildings and infrastructure. This generative function of the project, which was made especially clear in the expanded diagrams and science-fiction-style illustrations of Wright’s 1945 and 1958 revisions, have made Broadacre City a ripe subject for analysis by architectural historians.² Despite its extensive bibliography, however, most scholars have tended to view the project in a strikingly similar way, debating its role in prophesying or even creating post-World War II suburban and exurban sprawl, or viewing it as a nostalgic translation of the eighteenth- and nineteenth-century American social and economic ideals of Jefferson, Whitman, or the Progressive movement.

These views of the project, which tend to conflate Wright’s three conceptions of the plan, contain significant methodological problems that will be examined in this chapter. Scholars have generally failed to sufficiently situate the original 1935 project within the context of Wright’s career, or within the contemporary urban planning debates to which Wright was a vocal

participant. Even though Wright himself, and later historians, often presented Broadacre City as the isolated work of a genius-architect, this chapter will revisit Wright’s original drawings and other archival material to argue that it should instead be understood as a product of its particular time. Broadacre City was merely one point on a continuum of related schemes Wright had designed since the early 1920s that were manifestations of a broader discourse about the impact of the automobile on American cities. The popularization of the car, along with population increases and new patterns of suburbanization, led to sweeping changes to the urban landscape, and architects and planners developed a wide range of remedies, some small and practical in scale, others more dramatically futuristic. Taking into account the optimistic yet often-contradictory statements expressed by Wright himself during the interwar period, this chapter will view Broadacre City as both distinctly visionary in nature and closely attuned to the real problems Wright had witnessed in Chicago and Los Angeles. Just like Otto Wagner, Eliel Saarinen and Richard Neutra, Wright was determined to use modern technology and high-speed infrastructure to re-orient the urban fabric, thereby allowing for the kind of limitless growth and unfettered access to the West inherent to his image of America.

The Taliesin Fellowship, which executed Wright’s vision in numerous drawings and models for the exhibition, was the culmination of Wright’s longstanding interest in pedagogy and mentorship of younger architects, evident from his Oak Park office at the beginning of his career to his home and studio at Taliesin in the mid-1920s. As noted in earlier chapters, Wright’s

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4 I want to use “visionary” rather than “utopian” to differentiate the former’s connotations of futurism and emergence out of contemporary society from the latter term’s connotations of separation and isolation. See introduction for further discussion of terminology.
various offices were extraordinary places of comradeship and collaboration among architects from all over the world. This connected him to Richard Neutra in the fall of 1924, as well as to Eliel Saarinen in the late 1920s. Indeed, Neutra’s own experimental “Practical Course in Modern Building Art” taught in Los Angeles in 1928, and Saarinen’s rich architecture studio environment at Cranbrook Academy of Art, may very well have inspired Wright in his creation of the Taliesin Fellowship.\(^5\) An examination throughout this chapter of Wright’s connections to Saarinen, whom he viewed as a colleague with similar interests, and to Neutra, his apprentice and eventually a close family friend, will provide evidence of Wright’s complex relationship to the world of visionary urban planning during the 1920s. Just like Saarinen and Neutra during their years in the metaphorical wilderness of American architecture, Wright too engaged with the contemporary city of the Midwest and southern California as a means of producing new architectural ideas and jumpstarting his career.

Before delving into an analysis of the historiography of Broadacre City, a description of the project as it was envisioned in the early 1930s is necessary. The 1935 model of Broadacre City Wright developed for the Rockefeller Center exhibition was the physical manifestation of ideas he had been speaking and writing about for more than five years (Figure 89). The architect delivered lectures arguing for a decentralized city at Princeton in 1930, and published a longer treatise on the subject in his book *The Disappearing City* in 1932.\(^6\) Only in 1934 did Wright set his new Taliesin fellows to work full time with him on an actual plan and the 12-foot by 12-foot model of Broadacre City, an undertaking financed by Edgar Kaufmann, Sr. According to a letter from Edgar Tafel, work on the model consumed the apprentices. He wrote, “We don’t know the


date here anymore… this model has started us all on the way to insanity, and the fear of April 1 is almost dreadful.” The model on display at Rockefeller Center depicted one of a proposed infinite series of four-square-mile settlements for 1400 families set along a multi-level and multi-purpose high-speed linear highway and monorail system (Figures 90 and 91). The plan, which was forcefully horizontal in both its conception and design, was divided into unique zones containing farming, small manufacturing, and residential functions. As Wright put it in his 1935 Architectural Record statement on the exhibition, farms modeled on his 1932 “Little Farms” project for Walter Davidson would be “correlated” with production and sale. Supposedly “non-polluting” factories, decentralized schools, and efficient, pre-fabricated houses were woven together throughout the plan. Economically, there would be both public ownership of utilities and some industries, and private ownership of small businesses and other professional firms. Wright was highly critical of what he termed the “rent” inherent to modern cities, meaning the high interest rates, real estate speculation, and other exploitative economic practices, which would be replaced in Broadacre City by a form of social credit. The county served as the primary form of government in Broadacre City, and the architect himself would serve as the arbiter of disputes and land distribution. Wright’s view of Broadacre City’s political and economic spheres was complex and oftentimes contradictory, and those aspects are less relevant to this chapter than the architectural and urban planning choices embedded in the 1935 model.

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9 “Pre-Fab Farm Units,” 1932, #3202, Frank Lloyd Wright Archives, Columbia University. In Broadacre City, the farms are listed as “Experimental Agricultural Tracts,” #3414.01.
and related drawings. Just as the previous chapters examined similar themes in the work of Eliel Saarinen and Richard Neutra, these choices reveal Wright’s exposure to and engagement with issues of physical planning and infrastructure design from the 1910s onward.

For transportation, Wright developed a complex scheme of controlled, multi-layered superhighway systems that separated different types of traffic and tied an otherwise wholly dispersed city together. Gas stations at major intersections would serve as distribution centers for a wide variety of merchandise, and “aerator” ports, functioning like helicopter pads, would allow for individual air transit throughout the city. Utilities for electricity, water, and telecommunications would largely run underground, powering the wide array of commercial, residential, and government buildings laid out in the plan. A detailed key to the plan for Broadacre City revealed the priorities of Wright’s urban model for the future city. Among other spaces, the plan contained recreation facilities like an aquarium, a golf course, the so-called “automobile objective,” and an “Automobile Inn,” as well as numerous farms, apartments and single-family homes of various sizes.

Indeed, Broadacre City was not conceived as an entirely new environment, but rather a blend of building typologies and individual works culled from a wide array of Wright’s recent, and largely unexecuted, architectural projects. The specific earlier designs incorporated into

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13 Wright, “Broadacre City: A New Community Plan,” 348. The plans for utilities are also discussed extensively in Sergeant, 126.
Broadacre City included, among others, his National Life Insurance Tower of 1924, the Gordon Strong Planetarium and Automobile Objective of 1925, the Steel Cathedral of 1926, his St. Mark’s and Chicago towers of 1929 and 1931, respectively, his Capital Journal Building of 1931, and his service stations of 1930-1932. For housing, Wright called on his House on the Mesa of 1931, his Chandler block houses of 1925, and designs for pre-fabricated housing and farm units from 1932. To Wright, Broadacre City was a “city” just like any of the metropolises of the early twentieth century, in the sense of its all-encompassing plan and the cohesive civic identity expressed by this collection of building types. Wright stated, “The basis of the whole is general decentralization as an applied principle and architectural reintegration of all units into one fabric.”

This “one fabric” was only possible due to three underlying technological developments that Wright believed would inevitably propel America towards his decentralized concept of the future city: the car and mobilization of populations, new telecommunication networks like radio and telephone, and standardized machine production methods.

As described by Wright in 1935, housing in Broadacre City, though highly varied, would all contain standardized utility systems and use innovative construction methods like fireproof synthetic materials and pre-fabrication, primarily on one-acre plots of land. For Wright, the home was a manifestation of the dispersed city on a small scale. As he wrote in The Disappearing City, the home should be a “refuge for the expanding spirit that is still his.”

“Roofless rooms,” as well as rooftop gardens, which Wright may have pulled from the southern California residential architecture of Rudolph Schindler or Richard Neutra, were widespread in
Broadacre City.\textsuperscript{19} Single-family houses were differentiated according to size and number of cars owned by residents: “There is the professional’s house with its laboratory, the minimum house with its workshop, the medium house ditto, the larger house and the house of machine-age luxury. We might speak of them as a one-car house, a two-car house, a three-car house and a five-car house.”\textsuperscript{20} Wright referred to two of his small house models in pioneer-like terms, as “homesteads,” as in the “Broadacre City Subsistence Homestead – Flat Roof Type,” and “Broadacre City – Smallest Homestead for Seven People – Standardized kitchen/bath unit.”\textsuperscript{21} Although Wright was clear that his division of home sizes catered both to the poor and to the wealthy, many historians such as Robert Fishman, Giorgio Ciucci, and others have tended to over-emphasize what they perceive as the relative egalitarianism of Broadacre City’s housing designs.\textsuperscript{22} A reconsideration of Wright’s drawings, however, indicates a much more hierarchical division of home size than even Wright himself usually described.

The specific houses in the plan were drawn from a variety of sources, including earlier designs like his House on the Mesa project, as well as the nascent experimental concept for affordable single-family homes Wright called “Usonian” (Figure 92). Both cases reflect a continuation of Wright’s long-standing interest in the family as the most significant unit within society. In contrast to the large suburban residences from earlier in his career, however, in Broadacre City he applied this concept to a range of housing sizes meant for a wider array of


\textsuperscript{21} “Broadacre City Subsistence Homestead – Flat Roof Type,” #3408.06 and “Broadacre City – Smallest Homestead for Seven People,” #3408.008, Frank Lloyd Wright Archives, Columbia University.

\textsuperscript{22} Fishman wrote, for example, that “[s]trict equality, he held, would threaten individuality, but no family could be true homesteaders if they were too poor to afford one car or rich enough to maintain more than five. Within these limits there was no rigid hierarchy...” Fishman, \textit{Urban Utopias}, 131.
Americans, from the poor to the very wealthy. For Wright, the term “Usonia” referred to a rehabilitated model of American culture that would organically develop. In practice, as in the Jacobs House he would design in 1936, the Usonian methodology mostly consisted of affordable yet innovative construction techniques like under-floor heating, board and batten walls, and a “planning grid” to simplify the builder’s work.

The five-car home, based on the Wright’s House of the Mesa project, proves the point at the higher end of the wealth spectrum. The House on the Mesa had been originally commissioned by the Denver businessman George E. Cranmer, and Wright worked for over a year in preparation for its display in the 1932 International Exhibition of Modern Architecture exhibit at MOMA (Figures 93 and 94). Hitchcock described it as: “a luxurious mansion, a ‘five-car house,’ as Wright effectively described its scale. No project of Wright’s, except possibly the Elizabeth Noble apartment house, could have displayed so well the similarities and the differences between Wright’s work and that of the European leaders.” For Hitchcock, Wright’s open plan, division of served and service spaces, and the dramatic cantilevered concrete structure, and particularly the “interflowing exterior and interior space” represented a stark shift from the European model of International Style residential architecture. Hitchcock’s highlighting of the house’s lavishness was largely neglected by later historians attempting to read social equality into Wright’s Broadacre City, and left uncorrected until an important 2005 reexamination of the House on the Mesa by Robert Wojtowicz. Wojtowicz viewed the House of the Mesa as a modern luxury home, vastly more spacious and expensive than the humble

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23 See Fishman, Urban Utopias, 129-131 for a much longer discussion of Wright’s interest in the family unit, which was a major theme since the beginning of his career in the late-nineteenth century.
24 Sergeant, 16.
25 Ibid., 19.
26 Hitchcock, 85. See also Hitchcock, 87 for more description of Wright’s housing for Broadacres.
“worker’s cottage” of Usonia. Indeed, the drawings available in Wright’s archive reveal a massive home spreading outwards towards a garden, a lake, and a swimming pool. The 1938 publication of the house in Architectural Forum also described Wright’s conception of the design in this way, as seen in the caption: “The House on the Mesa, the five-car house of the Broadacre City models, is intended to show machine age luxury at its best – as it might well compare to its great advantage with any luxury whatsoever of the past.” Wright’s interest in the automobile, his habit of driving the long distances between Wisconsin, Arizona, and California multiple times a year in the late 1920s, and his exposure to a wide variety of landscapes and architectural forms, may very well have contributed to the scale and orientation to the landscape evident in the House of the Mesa, and its use as the five-car home in the decentralized future represented in Broadacre City.

The automobile was assumed to be the major mode of transportation in the city plan, a fact that is clear not only in the complex system of linear highways, but also in the design of gas station commercial centers, the spiral “automobile objective” look-out point, and the differentiation of housing by the size of their garages. Every family would be self-sufficient,

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29 Photograph and caption of the House on the Mesa model, Architectural Forum 68 (January 1938), 76. See also Wright’s description of the House on the Mesa in his 1958 book The Living City, 207. There, in a different context than his original 1931 conception or his 1935 inclusion of it in Broadacre City, Wright wrote, “Luxury…would enter the democratic social sense as gratification of more and more developed humane sensibility, beauty the concern. Exuberance is beauty but not excess. Yes. Liberty is not license, exaggeration is not exuberance. Every true home should be actually bound to grow from within to dignity and spiritual significance: grow by the right concept and practice of building into a pervasive social circumstance: grow out of one’s own good ground and better self into everybody’s light, not in everybody’s nor anybody’s way. Every man’s home his ‘castle!’ No, every man’s home his sphere in space – his appropriate place to live in spaciousness.”

30 Wright, An Autobiography (New York: Duell, Sloan and Pearce, 1943), 515-516; Wojtowicz, 524; and Hitchcock, 80, among others.

owning at least one car and at least one acre for its house and the small gardens.\footnote{The use of the acre as the standard unit of property is probably derived from traditional American methodologies of land division, in which a full section would be subdivided into quarter sections and subdivided further into acre units with low population densities. See Johnson, “Frank Lloyd Wright’s Community Planning,” 12-18.} This individual economic independence would be achieved as labor and consumption theoretically worked in sync, and manufacturing technologies allowed for direct distribution of goods.\footnote{G. Collins, “Broadacre City,” 64.} For Wright, the benefits of Broadacre City included an end to the urban systems of “rent,” reduced unemployment, and a more vibrant democracy as the American population withdrew from urban traffic and slum life.\footnote{For a detailed description of Wright’s theory of “rent,” see Wright, The Disappearing City, 9.} Broadacres, while focused on small-scale community life, would extend throughout the nation along high-speed transportation structures as Americans took hold of their inalienable rights to land and automobiles.

Large-scale mobilization was the key to Broadacre City’s plan for population dispersion, and Wright designed transportation features that both emerged out of contemporary technology and moved significantly beyond it. The twelve-lane highway system that was the spine of the plan contained no grade crossings, no interrupting stoplights, and allowed no left turns at grade.\footnote{Wright, “Broadacre City: A New Community Plan,” 348. See also Wright’s “Plan for a Minor Highway,” #34023, Frank Lloyd Wright Archives, Columbia University.} Giant cloverleaf overpasses and enormous suspension bridges would allow for safe automobile crossings of the linear highway system.\footnote{See “Broadacre City, Highway Overpass,” 1934, #3407, and “Broadacre City, Master Plan,” 1934, #3402, in the Frank Lloyd Wright Archives, Columbia University. See also: “Broadacre City: Frank Lloyd Wright, Architect,” 59. Hitchcock interpreted the suspension bridges as a “premonition of Norman Bel Geddes Futurama of 1939, but, according to Wright, with many traffic coordinations and detailed solutions not to be found in that project.” Hitchcock, 88.} The roadway itself was designed to serve different forms of transport on different levels, with cars on the upper level, and trucks running below and next to the automobile lanes on roads that connected to warehouse storage built into the highway itself and to subsidiary streets leading into Broadacre City proper. A long-distance monorail that
could travel at speeds approaching 220 miles per hour ran alongside the arterial highway.\textsuperscript{37} In Wright’s explanation of the plan, he additionally described the significance of air transport in Broadacre City, and especially the use of individually operated helicopters he called “aeroators,” which were “capable of rising straight up and by reversible rotors able to travel in any given direction under radio control at a maximum speed of say, 200 miles an hour, and able to descend safely into the hexacomb from which it arose or anywhere else.”\textsuperscript{38}

The theories of organic development inherent to Wright’s earlier work and his more recent concept of Usonia were reflected also in his description of humanity’s relationship to urban centers. In his 1935 analysis, Wright represented Broadacre City “not as a finality in any sense but as an interpretation of the changes inevitable to our growth as a people and a nation.” According to Wright, “the ghastly heritage left by over-crowding in overdone ultra-capitalistic centers would be likely to disappear in three or four generations. The old success ideals having no chance at all, new ones more natural to the best in man would be given a fresh opportunity to develop naturally.”\textsuperscript{39} Broadacre City was therefore a response to contemporary urbanism, but not a complete break or true “disappearing” of the city. Rather, in 1935 at least, Broadacres was an anticipatory representation of the inevitable future of American urbanism.

The model opened for display in 1935 to generally positive public and critical acceptance.\textsuperscript{40} The New York Times published a series of articles on the model, and gathered

\begin{itemize}
\item \textsuperscript{38} Wright, “Broadacre City: A New Community Plan,” 348
\item \textsuperscript{39} Ibid., 349.
\item \textsuperscript{40} The immediate critical reception of both The Disappearing City and the model for Broadacre City on view at the Industrial Arts Exposition is significant for the example it provided for later scholars, and is typical in its focus on the social aspects of Wright’s ideas. Two 1933 articles reviewing The Disappearing City provide interesting comments on Wright’s critique of the contemporary centralized city, and on his proposed solution. George Fred Keck described astutely what he perceived as Wright’s glorification of machine technology, evident in Wright’s use of the automobile as a tool for decentralizing the city. Keck stated, “[Wright] has none of the current terror of the machine as master of man,” rather he has “faith in its power to serve man.” Nevertheless, Keck found Wright’s
\end{itemize}
statistics showing that upwards of 40,000 people viewed the exhibit during its month-long run (Figure 95). The most influential review was Lewis Mumford’s celebration of the plan’s agrarian, back-to-the-land aspects in his Sky Line column for The New Yorker. Mumford noted that the model carried “the tradition of romantic isolation and reunion with the soil to its conclusion,” and was successful as a reflection of Wright’s philosophy of modern life. Mumford did, however, object to the lower-income, “minimal” housing options, which he saw as inadequate in comparison to other contemporary low-income housing options found in Europe and America. Mumford’s review is even more important for its connection to the later historiography on Broadacre City, in that by the 1960s he had almost completely reversed his opinion of the project in light of later developments in urban planning. Mumford argued in 1962 that the scale of the proposal spread population density too thin and required too much reliance on the automobile. He also claimed that implementation of the project would reduce productive
general lack of attention to community organization and environmental concerns to be problematic, and predicted the destruction of America’s countryside if Broadacre City’s large-scale highway plans were implemented. See: George Fred Keck, “Review of The Disappearing City by Frank Lloyd Wright,” The Journal of Land and Public Utility Economics 9, no. 2 (May 1933): 216. Catherine Bauer, the co-curator of the housing section at the MOMA International Style exhibition, wrote another critical review of Wright’s 1932 book in a review in The Nation. For Bauer, Broadacre City discouraged the kind of social groupings that she believed underpinned the development of “culture,” and that his scheme’s utopian qualities as represented in the book made the project inadequate as a true planning model. She found particularly problematic Wright’s focus on automobiles and gas stations, his retention of class differences between rich and poor, and his extremely vague definition of housing. Bauer argued in favor of German planned communities, with their greater access to facilities, relative affordability, and protection from the less pleasant aspects of automobile travel. Her response, which criticized the Broadacre concept as a completely impractical design, and therefore an ineffective method of transforming society, became a fairly standard critical position for those on the political left. Catherine K. Bauer, “When is a House Not a House?” Nation 136 (25 January 1933): 99-100. See also, Schapiro, 43.

41 “Architect Models New Type of City”; Walter Rendell Story, “Industry Aids Home Art,” The New York Times (21 April, 1935); Wright, “The New Frontier: Broadacre City.” The exhibit ran from April 15-May 15, 1935. The model then traveled to Madison, Wisconsin, and to Pittsburgh, where Wright claims an additional 30,000 people saw it. Even if these numbers are exaggerated, they reflect the continued interest in Frank Lloyd Wright in the United States, even after his limited architectural production due to personal and financial problems throughout the 1920s and early 1930s.


43 Ibid.
farming land and destroy unique rural values. Mumford’s depictions of Broadacre City, his 1930s view of its expression of romantic individualism and his later analysis of its inefficiencies, were both taken up by later historians, but in ways that too often failed to see the Broadacre City in its proper framework of 1920s-1930s urbanism.

Although the scholarly literature on Broadacre City is vast, it can be summarized into three basic categories. First is the historiographical literature, an important sub-genre in all scholarship on Frank Lloyd Wright. The second major category of scholarship is focused on determining the practicality of Wright’s project as a real urban plan; this category includes commentary that sees Broadacre City’s emphasis on decentralization via high-speed infrastructure as actually having come to fruition in the post-war era, with terrible results for inner cities. A third group of scholars have primarily interpreted Broadacre City as a rural, agrarian, back-to-the-land social-economic utopia, and as a manifestation of older American ideals of democracy, individualism, and private ownership. Although each of these categories holds valuable works on Broadacre City, the description of the plan as a “utopia” is problematic,

47 These include G. Collins, Giorgio Ciucci, Robert Fishman, and others. Also see: Walter Creese, The Crowning of the American Landscape: Eight Great Spaces and Their Buildings (Princeton, NJ: Princeton University Press, 1985); and Twombly, “Undoing the City: Frank Lloyd’s Planned Communities,” 546-549. Additionally, scholars like Ciucci and Roger Cranshawe have emphasized Wright’s connection to the turn of the century Progressive social theory like that of Henry Demarest Lloyd, Jane Addams, and others. For Cranshawe, Wright’s text “Art and Craft of the Machine” of 1901 in particular was a perfect encapsulation of the Progressive desire for a cure for the social ills of the city, a realizing of the potentials of the city through proper planning, a community orientation, and using the machine in service of good design. See: Cranshawe, “Frank Lloyd Wright’s Progressive Utopia,” Architectural Association Quarterly 10, no. 1 (1978): 1-9; and Ciucci, “The City in Agrarian Ideology,” 302.
in its implication of a space entirely disconnected from the real contemporary world. Few historians dealing in this latter methodology have performed the type of broad analysis that is necessary for an accurate understanding of the project in its contemporary context, or paid due attention to Wright’s erudite knowledge of national and international trends in architecture and planning in the 1910s and 1920s, even as he was somewhat marginalized from the field for personal and professional reasons.

Interpretations of the plan as predominantly agrarian, ruralist, or solely looking backwards to earlier social utopian models have done a disservice to the scholarly understanding of Broadacre City by minimizing Wright’s clear interest in futuristic technology and visionary urbanism at this point in his career. Indeed, despite titling his 1932 treatise *The Disappearing City*, Broadacre City was not altogether anti-urban, but rather anti-concentration. In the plan, Wright explored ways to retain community and civic identity amidst the vast population

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49 Giorgio Ciucci, Robert Fishman, and Kenneth Frampton’s influential assessments of Wright’s project have unfortunately followed this tendency to view Wright’s plan as a wholesale rejection of the city. Ciucci for example, emphasized Broadacre City’s position in the history of American agrarian ideology, connecting Wright’s model of the city with the history of westward expansion, individual ownership of property, Jeffersonian democracy, Henry George’s tax theories, and Edward Bellamy’s utopian novel *Looking Backward*, Henry Ford’s 1921 project for Muscle Shoals, and many other sources dating back to the nineteenth century, most of which Wright himself never explicitly acknowledged. Ciucci argues that Wright’s priorities in Broadacre City were virtually the same as these earlier philosophies: “education should once again be conservative and selective; progress signified man’s effort to triumph over the forces of nature; [and] the decentralization of industry, the return to the land, and the recovery of the past...” In contrast to Ciucci, Robert Fishman recognized the role of futuristic technology in uniting the Broadacre community and expressing Wright’s faith in “the true spirit of his country,” though he still misses out on several key influences that are rooted in the interchanges between Central Europe and America in the preceding two decades. In his article, “Broadacre City: Wright’s Utopia Reconsidered,” from 1961, George Collins was somewhat of an exception to the rather limited interpretations of the plan up to that point by expanding the discussion to include Wright’s own work in the field of urbanism. Collins discussed in particular Wright’s very small scale plans for vacation cottage and suburban communities from decades earlier, including Como Orchards in Montana of 1908, the Bitter Root Valley project of 1909, and a project for a Chicago neighborhood he was invited to submit non-competitively to a 1913 contest. See Ciucci, “The City in Agrarian Ideology,” 296-310, 349; Fishman, *Urban Utopias*, 159-160. Grabow, “Frank Lloyd Wright and the American City,” 119; G. Collins, “Broadacre City,” 75.
expansion he believed was inevitable in the future.\textsuperscript{50} Without discounting Broadacre City’s important economic and social theory, nor its relation to Wright’s earlier experiments in small-scale planning, this view still leaves us with a picture of the architect working in virtual isolation from the real problems of the modern city and from the growing interest in urban planning as a discrete “science” in Europe and America in the 1910s-1920s. As shown in Chapter 1, however it was the Central European background, combined with Wright’s engagement with leading figures in American architecture and planning working on similar topics in the 1920s, that lead directly to the visionary experimentation with planning for unlimited population growth via linear infrastructure.\textsuperscript{51}

Finally, many analyses of Broadacre City have spent too much time focusing on its possible validity in the context of the 1930s, at the expense of examining what the elements of unreality and futuristic fantasy embedded in the plan reveal about how Wright viewed the contemporary city.\textsuperscript{52} As this chapter will describe, the fantastical aspects of the plan’s infrastructure and physical plan in particular, meant to accommodate the future growth of Broadacres as a linear city system, reflect influences in American and Central European urbanism that have not usually been included among Wright’s source material for the project.

Wright’s awareness of German planning in the 1910s, in particular, was a likely source for his belief in the necessity of ambitious transportation planning as a means of accepting and

\textsuperscript{50} See for example: Wright, \textit{The Living City}, 110, 59-60. Fishman sees this possibility, aligning Wright’s interest in cohesive community to Howard’s Garden City, but on an exponentially larger scale thanks to innovations in transportation and communication networks that Howard could not have foreseen. Fishman, \textit{Urban Utopias}, 127.

\textsuperscript{51} The Central European aspect of Wright’s career was largely unexplored until Anthony Alofsin, \textit{Frank Lloyd Wright – The Lost Years, 1910-1922: A Study of Influence} (Chicago: University of Chicago Press, 1993).

\textsuperscript{52} Among others, Robert Fishman for example argued that Wright’s plan was inherently elitist and simultaneously too vague and too complicated for it to actually be achievable, George Collins felt the plan was simply too unwieldy a vision, while Stephen Grabow fell into the common trap of taking Broadacre City too literally, overemphasizing the question of whether Wright’s model for a city so completely reorganized could ever be implemented on a large scale. G. Collins, “Broadacre City,” 74; Fishman, \textit{Urban Utopias}, 159-160; Grabow, “Frank Lloyd Wright and the American City,” 119.
managing population growth. Around the turn of the twentieth century, increasing interchanges between Germany, Austria, and America helped spread new architectural styles and the burgeoning science of city planning on both sides of the Atlantic. Wright had already been exposed to a wide variety of influences from Central Europe, including via the architecture of Olbrich, Hoffman and others on display at the St. Louis 1904 World’s fair, through architectural periodicals populating Wright’s Chicago office by the early 1900s, and especially in his travels to Berlin and Vienna to arrange publication of his work by Wasmuth around 1910 just after the Berlin Universal City Planning Exhibition was organized (Figures 96 and 97). Although it is unlikely that Wright actually attended the Berlin Universal City Planning show, he was in

53 The 1904 St. Louis World’s Fair, celebrating the centennial of the Louisiana Purchase, was an important site for this exchange, exhibiting decorative arts designed by Joseph Olbrich, Josef Hoffmann, and Peter Behrens, among others. Wright visited the fair himself and was apparently so impressed he encouraged his apprentices to make the trip to St. Louis as well. Regarding the St. Louis Fair, see Rydell, *Fair America*. Catalogs for the St. Louis Fair include: *The World’s Fair, St. Louis, U.S.A., 1904* (St. Louis: R.A. Reid, 1902; and *Souvenir book of the Louisiana Purchase Exposition: Day and Night Scenes* (St. Louis: Official Photographic Co., 1904). For Wright’s involvement, see: Alofsin, *Frank Lloyd Wright – The Lost Years*, 12-16, and Chapter 2 for more. At the same time, several colleagues of Wright’s, including George Niedecken and the sculptor Richard Bock, could read and help translate many of the German periodicals sent to the office, including Wasmuths *Monatshefte* and other magazines that published Jugendstil and Vienna Secession architecture. Leonard K. Eaton, *American Architecture Comes of Age* (Cambridge, MA and London: MIT Press, 1972): 207-210; Hanks and Tofer, “Wright and His European Contemporaries,” 6-19. For more on the German-language periodicals, see the interview between Alofsin and O.P. Reed, Jr. 2 September 1984, Malibu, California, cited in Alofsin, *Frank Lloyd Wright – The Lost Years*, 16-17. Otto Wagner’s textbook *Moderne Architektur* was also available in Chicago via an abridged translation published in the magazine *Brickbuilder* in 1901: See Otto Wagner, “Modern Architecture,” abridged translation by N. Clifford Ricker, published under the auspices of the Architectural League of America, *The Brickbuilder* 10, no. 6 (June 1901): 124-128; ibid. no. 7 (July 1901): 143-147); ibid., no. 8 (August 1901): 165-171. According to Anthony Alofsin, Wright’s former employee Walter Burley Griffin may have given Wright copies of the translation. Wright would have also likely been familiar with Austrian architecture in particular through the British journal of the Arts and Crafts movement, *The Studio*, which had published volumes on the Secession in 1906: Hugo Haberfeld, “The Architectural Revival in Austria,” in Charles Holme, ed., *The Art Revival in Austria* (London: The Studio, 1906). As noted in Chapter 1, in 1909-1910, several events related to German and American urban planning were well publicized on both continents in journals like these. These included the First National Conference on urban planning in Washington, DC and the “Boston 1915” exhibition of 1909, followed by the Berlin Universal City Planning Exhibition of 1910. A key figure in all of these exhibitions was Werner Hegemann, a planner who had spent time in America in the mid-1900s before returning to help organize the Berlin show, edit its two-volume catalog, and provide American examples with which he was quite familiar. See Christiane C. Collins’ *Werner Hegemann and the Search for Universal Urbanism* (New York: W.W. Norton, 2005) for more details on this. Werner Hegemann, ed. *Der Stadtebau nach den Ergebnissen der allgemeinen Stadtebau-Ausstellung in Berlin*, 2 vols. (Berlin: E. Wasmuth, A.G., 1911-1913). As noted in Chapter 1, the Washington, DC show was originally displayed in New York City, and contained a segment on plans to solve urban congestion. For exhaustive evidence of publications and interactions between German and American planning around 1910, see Collins, *Werner Hegemann*. For more discussion of Wright’s engagement with German architects and planners during his time in Europe, see Alofsin, *Frank Lloyd Wright – The Lost Years*. 
Germany coordinating the publication of his work there by Wasmuth around the same time the publisher was producing an exhibition guide and catalog.\textsuperscript{54}

The Berlin Universal City Planning Exhibition, which consisted of myriad international examples of urban plans, is significant for the context in which it was conceived. The Exhibition emerged out of an immense civic interest in solving the problems caused by Berlin’s enormous population explosion that from the turn of the century had threatened to overrun the city. The results of a city-sponsored competition for the enlargement of Berlin were put on display at the Exhibition, and this, together with a scientific attention to understanding urban growth, revealed a focus on planning for future expansion rather than confining it.\textsuperscript{55} The impact of this relatively unrestrained form of regional planning on Wright is somewhat unclear, but Wright’s knowledge of the Berlin exhibition, as well as his apparent friendship with Otto Wagner in Vienna, were obviously significant factors underlying the concepts of metropolitan expansion and integrated planning lacing his later projects. Given Wright’s thorough engagement with contemporary trends in modern architecture and urbanism, the many plans, competitions, and calls for urban reform in the first decade of the twentieth century in Berlin and Vienna must have affected Wright during his travels there, just as they did Eliel Saarinen around the same time.\textsuperscript{56}

By 1910, Wright was highly attuned to American urbanism as well, having spent the previous twenty years working in and around Chicago in the office of Adler & Sullivan and on

\textsuperscript{54} See: Wright, Ausgeführte Bauten und Entwürfe von Frank Lloyd Wright (Berlin: Ernst Wasmuth, 1910); Ernst Wasmuth, ed. Fuhrer durch die allgemeine Stadtebau-Ausstellung in Berlin in 1910 (Berlin: Ernst Wasmuth, A.G., 1910), and Hegemann, Der Stadtgebau nach den Ergebnissen der allgemeinen Stadtebau-Ausstellung in Berlin. Alofsin, Frank Lloyd Wright—the Lost Years, 1910-1922: A Study of Influence, 32.

\textsuperscript{55} C. Collins, \textit{Werner Hegemann}, 33-34.

\textsuperscript{56} Alofsin writes that Wright likely knew Otto Wagner “pretty well.” Alofsin, \textit{Frank Lloyd Wright – The Lost Years}, 6. Alofsin describes Wright’s affinities to the Vienna Secession from a decorative standpoint, in regards to his 1913 San Francisco Call Building (see below). Bruce Brooks Pfeiffer discussed some unconfirmed meetings between Wright and Secession figures to Alofsin: personal communication, 2 December 1990. Pfeiffer recalls that Wright himself said he met Klimt and Hoffmann in 1910. A confirmed meeting occurred between Wright and Hoffmann in 1937 when Wright was returning from his travels to Russia (Sekler, \textit{Hoffmann}, 236, and n. 28). Cited in Alofsin, \textit{Frank Lloyd Wright – The Lost Years}, 22. See also Alofsin “Frank Lloyd Wright: The Lessons of Europe, 1910-1922” (Ph.D. diss, Columbia University, 1989), 155-186.
his own, ultimately setting up a studio at his home in Oak Park. Wright would have certainly attended the 1893 Chicago Columbian Exposition, for which Sullivan had designed the Transportation Building.\textsuperscript{57} Chapter 2 contained a detailed analysis of the 1893 Fair in the context of American “visionary” architecture, a claim that is in line with several other interpretations of the Fair as it relates to Wright’s interest in the city, including those by George Collins, Kenneth Frampton, and Anthony Alofsin.\textsuperscript{58} Frampton referred to the 1893 fair as a “city-in-miniature,” while Alofsin described that aspect of the 1893 Fair embedded in Wright’s later proposals for another Chicago Fair, the 1933 exposition for which Wright’s submissions were ultimately rejected.\textsuperscript{59} Despite the largely Beaux-Arts design of the 1893 Chicago Fair or the 1904 St. Louis one, their projection of specific aspirational values related to America’s cultural and technological position in the world certainly qualifies them as visionary models, and makes Wright’s interest in them critical to his understanding of planning.

In 1916, Wright went to Japan, the country that had fascinated him from the beginning of his career. Over the course of six trips in six years, he designed several residences, a girls’ school, and the well-known Imperial Hotel in Tokyo.\textsuperscript{60} In between, Wright commuted between his Wisconsin and California offices. It was in California, where his sons Lloyd Wright and John Lloyd Wright began their careers, and Rudolph Schindler would make his mark supervising

\textsuperscript{57} For much more on the 1893 Fair, see Chapter 2, and Hines, \textit{Burnham of Chicago, Architect and Planner}, 2nd ed. (Chicago: University of Chicago Press, 2009).
\textsuperscript{59} Frampton, 58; Alofsin, “Broadacre City: The Reception of a Modernist Vision,” 12.
construction on a number of local projects, that Wright encountered the radical changes to the landscape wrought by automobile transportation that would inform his visionary architecture and planning of the next two decades. As noted in Chapter 2, California was experiencing a surge of population and related transportation growth at the moment Wright entered the scene there, and he was undoubtedly affected by the possibilities implied by such large-scale development into outlying areas.

Wright’s first work in California was for Aline Barnsdall, a Chicago theater owner who had recently moved there to create a new theater company. Barnsdall asked her friend Norman Bel Geddes to join her as a scenic designer for the project, and Wright soon followed, promised a large-scale commission for a theater complex and Barnsdall’s own house on a hilltop site in Los Angeles (Figures 98 and 99). Wright was no stranger to California, however, and he likely heard firsthand accounts of the state from his former colleague at Adler & Sullivan, Irving Gill. Gill wrote in a 1916 article in *The Craftsman*, “We have noble mountains, lovely little hills and canyons waiting to hold the record of this generation’s history, ideals, imagination, sense of romance and honesty…The West has an opportunity unparalleled in the history of the world for

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61 Kathryn Smith, “Frank Lloyd Wright, Hollyhock House, and Olive Hill,” *Journal of the Society of Architectural Historians* 38 (March 1979):15-33. See also Smith’s book on the same topic: *Frank Lloyd Wright, Hollyhock House and Olive Hill: Buildings and Projects for Aline Barnsdall*. New York: Rizzoli, 1992; Neil Levine, “Hollyhock House and the Romance of Southern California,” in *Art in America* (September 1982): 150-165; and Hines, “Machines in the Garden: Notes Toward a History of Modern Los Angeles Architecture,” in Reid, *Sex, Death, and God in L.A.*, 273-276. Wright describes the Olive Hill project in detail in his autobiography, 248-257; See also Norman Bel Geddes in his *Miracle in the Evening: An Autobiography* (Garden City, NY: Doubleday, 1960). Norman Bel Geddes had designed sets for Olive Hill, but his fascination with the future, and with machine-age technology, may also have influenced Frank Lloyd Wright’s related orientation throughout the 1920s and 1930s. Most famous for his work as an industrial designer, Bel Geddes was also a key designer of futuristic plans in the 1920s, including an eighty acre factory and laboratory complex for the Toledo Scale Company in 1929 that was situated along the Dixie Highway in between Detroit Michigan and Toledo, Ohio. See: Bel Geddes, *Toledo Scale Company, Precision Laboratory Group, Factory Development, Bird’s-eye View*, 1929, Library of Congress, cited in Peatross, 182. Bel Geddes conceived of a plan that was defined by the system of roadways surrounding it, providing a solution to the problem of the modern industrial park that was characterized by high-speed efficiency and dispersion away from cities. The futurism present in Bel Geddes’ work could have spurred Wright on in his own exploration of comparable themes.
it is the newest white page turned for registration.” Wright was captivated by the range of geography, especially the desert, and the wide-open spaces they provided for his experiments with construction and housing design. Wright designed some 45 buildings for Barnsdall’s complex, including a three-story theater on the lower level of the hill, residences for the theater company, a movie theater, and a kindergarten. There was an entrance pavilion for the public to the north, and a small house for the theater’s artistic director to the south. A row of “terrace stores,” small shops with ground-level retail, would allow easy access from cars and pedestrians on Hollywood Boulevard. Construction on Barnsdall’s complex, overseen by Wright’s son Lloyd Wright, began in 1919 and was soon joined by Rudolf Schindler, who had arrived Wright’s Taliesin studio two years earlier. Ultimately, Barnsdall’s Olive Hill project functioned as a kind of “alternative community,” one that was particularly appealing to Wright at this point in both his career and personal life. Fifteen years later, still somewhat on the outskirts of his profession and having only just emerged from years of personal turmoil, Wright designed Broadacre City, rather different in style but containing a similarly single-minded vision of the future.

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64 Smith, “Frank Lloyd Wright, Hollyhock House, and Olive Hill,” 22.

65 Barnsdall herself served as an important connector between Wright, Schindler, and Neutra through the experimental school she established her property. The school was supervised by Leah Press Lovell, wife of Philip Lovell and sister of Harriet Press Freeman, who was the wife of Wright’s future client Samuel Freeman. Both the Lovells and the Freemans apparently met all three architects through this connection, resulting in Wright’s own Freeman House of 1924, Schindler’s Lovell Beach House of 1926, and Neutra’s Lovell Health House of 1929. Smith, “Frank Lloyd Wright, Hollyhock House, and Olive Hill,” 22, 29, note 38; Wright, *An Autobiography*, 227.

Wright and his son designed another hilltop community called Doheny Ranch for the oil baron Edward L. Doheny in 1923. In this project, the father and son team embedded more than 200 masonry-block houses on a 400-acre site set within a steep, exotic-looking landscape (Figure 100). Several of the model house types included in the Doheny Ranch project would appear in built form as the Millard, Storer, Freeman and Ennis Houses, while the focus on automobile access points would continue to inform Wright’s work over the next decade. In the context of Los Angeles’ rampant development of automobile suburbs around the same time, Doheny Ranch, designed on a scale appropriate to the new modes of machine-age transportation, represented an intriguing response to contemporary urban planning. As David De Long put it in regard to the Desert Compound for A.M. Johnson in Death Valley, a sprawling complex encircled with an elevated driveway designed on spec in the early 1920s, Wright during this period explored how “[roads] could intensify relationships between buildings and their surroundings, with mobility itself emerging as a manifestation of human habitation.” It was the West itself, and the roadways criss-crossing it, which represented for Wright the embodiment of frontier values and American expansionism.

This turn towards the visionary was carried forth in further designs by Lloyd Wright in California, whose work should be seen as yet another possible stimulus for his father’s focus on futuristic architecture and planning throughout the 1920s and 1930s. For example, Lloyd

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67 Thomas Hines argues that Doheny Ranch was more likely “speculative fantasy” than a buildable suburb. Nevertheless, Wright was apparently encouraged in the endeavor by the real estate developer John B. Van Winkle, and he hoped the development would come to fruition. See Hines, Architecture of the Sun, 148.
70 For more on Lloyd Wright, see Hines, “The Blessing and the Curse: The Achievement of Lloyd Wright,” in Alan Weintraub, Lloyd Wright: the Architecture of Frank Lloyd Wright, Jr. (New York: Harry N. Abrams, 1998); based in part on David Gebhard and Harriet Von Breton, Lloyd Wright, Architect: Twentieth Century Architecture in an
Wright produced an unbuilt plan for a new Los Angeles Civic Center from 1925-1931 (Figure 101). City leaders asked for a civic center that would express “the present and future development of this to be the greatest of all cities,” for which Lloyd Wright created a massive Art Deco-style transportation hub topped with symmetrical stepped wings holding street-facing retail stores with office towers above. The design would have transformed the central city into a technologically advanced statement of civic pride, containing underground transfer points between rail and automobile travel, with elevators leading to helipads for air travel on the roof of the complex. This plan contains clear similarities in the design of multi-layered infrastructure to Richard Neutra’s Rush City Reformed project, underway since Neutra’s arrival in the United States, as well as to Eliel Saarinen’s designs for monumental civic centers in Chicago and Detroit. Lloyd Wright surely knew about all of these projects by 1925.

In 1924, Wright began to make plans for a new Chicago office and left southern California, though he would return many times over the next several years, visiting his sons and various friends in the area, including Richard Neutra. With few commissions and extensive personal and financial problems in the mid-1920s, Wright spent most of his time traveling between Wisconsin and the West, mentoring younger architects, and designing several futuristic and mostly unrealizable projects for skyscrapers and automobile architecture, many of which would be incorporated into Broadacre City. However frustrated he was in his career prospects during this period, these optimistic designs functioned as critical pieces of Wright’s architectural...
process, generating a vast stream of formal and conceptual ideas to be stored up for later use. All the while, Wright seems to have retained the lessons of Central Europe in his vision of an expanding metropolis, one that would require, like Wagner, Saarinen and Neutra, monumental architecture and a cohesive design system to accommodate future population growth while maintaining community identity.

At the same time, Wright expended great effort in forging connections to other architects with similar interests in transportation technology and the American city. The primary concern of the rest of this chapter is to examine Wright’s complicated affiliations with the world of American urbanism in the 1920s and 1930s in order to situate Broadacre City within a larger framework of real and visionary schemes. Given the population increases since the early twentieth century, as well as the popularization of the automobile and quick onset of associated congestion, Wright, like many architects in the interwar period, found the American city to be an incredibly rich site for experimentation. Even though Wright was not practicing “planning” per se in his development of Broadacres, his embrace of modern transportation infrastructure as a means of handling (rather than restricting) inevitable population growth can connect him to other theoretical American projects of the period, including those of Hugh Ferriss and Harvey Wiley Corbett in New York, Eliel Saarinen in Chicago and Detroit, and Richard Neutra in Rush City.

In his autobiography, Wright described vividly his view of himself as an outsider to the field of American architecture in the 1920s, stating with no small sense of bitterness, that the warm reception he received from Europe “reached me at the [time] when for several years I had walked the streets of many American cities [as] an exile with a now all too familiar worm’s-eye view of society.” Although Wright’s claim had some truth to it, the somewhat exaggerated tone is typical of the self-fashioning and self-mythologizing of his autobiography. He did experience a

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drought of large commissions throughout the later 1920s, faced bankruptcy at one point, and
suffered significant personal drama until he was able to marry his last wife Olgivanna in 1928.
Yet he also worked continuously on a series of mostly unexecuted designs, including
skyscrapers, the Arizona Biltmore and other desert projects, and the Richard Lloyd Jones House
in Tulsa. Wright welcomed Werner and Sylvia Moser, Richard and Dione Neutra, Kameki and
Nobu Tscuchiura and others to Taliesin, developing an interest in architectural pedagogy that
would form the core of his Taliesin Fellowship experiment several years later.74

While at Taliesin in Wisconsin, Wright forged a quite friendly relationship to Eliel
Saarinen, who was exploring solutions to urban congestion in his monumental civic center
projects for Chicago and Detroit.75 Although Saarinen’s Chicago plan was focused on enlarging
and reconfiguring a central urban core, rather than completely dispersing it, there is a similarity
between his obviously hyper-scaled and visionary system of multi-level infrastructure and
Wright’s high-speed transportation line extending across America. As described in Chapter 3,
Wright and Saarinen corresponded about Saarinen visiting Taliesin as early as 1924, and the two
stayed in touch after Saarinen started up his Cranbrook Academy of Art in Bloomfield Hills,
Michigan. Wright and Saarinen would later sail together to Brazil to serve on the jury for the
Columbus Memorial Lighthouse in Santa Domingo in 1931, while in 1932 Wright asked

74 Wright had strong feelings for his various apprentices, and seemed to truly enjoy teaching, and especially getting
new blood from around the world. This is described in a July 25, 1929 letter Wright wrote to Werner Moser in
Zurich, as well as several letters in support of Schindler’s attempts to achieve licensure in California, and myriad
letters sent to Neutra after Neutra left Taliesin. See Wright, Letters to Architects, ed. Bruce Brooks Pfeiffer (Fresno,
CA: Press at California State University Fresno, 1984), 74-76; See also: Wright to Dione Neutra, March 1925; and
Wright to Richard Neutra, August 1929, in Neutra, Richard Neutra: Promise and Fulfillment: Selections from the
Letters and Diaries of Richard and Dione Neutra, 1919-1932, 139, 178-179.

75 See Saarinen, “Project for Lake Front Development of the City of Chicago,” The American Architect/The
Architectural Review 124, no. 2434 (December 5, 1923): 487-514, and also David De Long’s cogent description of
the plan in “Eliel Saarinen and the Cranbrook Tradition in Architecture and Urban Design,” in Design in America:
Saarinen for an endorsement in support of the Taliesin Fellowship.\textsuperscript{76} In all of their letters during these years, Wright expressed deep admiration and respect for Saarinen, viewing him ultimately as a colleague in arms, despite some evident bitterness when reflecting on Saarinen’s relative success in the late 1920s comparison to his own.\textsuperscript{77}

Erich Mendelsohn also visited Wright at Taliesin in the fall of 1924, while Neutra was there as Wright’s apprentice. This critically important moment occurred just as Wright was shifting gears in the mid-1920s from the massive textile-block homes of southern California to a new take on visionary architecture and urbanism largely oriented around skyscrapers and automobile transportation. During the visit, after a tour of the landscape with Wright, the two architects apparently undertook a demonstration of their respective design prowess on a patch of sand on the beach. Mendelsohn wrote, “We climbed down to the beach, a broad expanse of sand, like dunes; for the water has receded considerably. We had a competition in the sand. Wright drew with angular lines a massive garage which he was working on at the moment, with a fantastic superstructure. I did a sketch with a rounded contour.”\textsuperscript{78} Mendelsohn was likely referring to the Gordon Strong Planetarium and Automobile Objective, to which Wright had originally given a more geometric shape. Mendelsohn’s more curvilinear approach may have

\textsuperscript{76} “Frank Lloyd Wright Sails: Architect Will Join Jury to make $1,500,000 Santo Domingo Award,” \textit{The New York Times} (September 20, 1931): 31. On August 30, 1932, Wright wrote to Eliel Saarinen: “My dear Saarinen: Would you write to me such a letter concerning the Fellowship that I might show it to people who could help with the buildings and industrial equipment of the School? If these people felt that ten worth while architects thoroughly approved and would like to see them help it might smooth our way a little, because I imagine many material men and manufacturers fear that were they to commit themselves to a radical architect’s venture like this they might antagonize the ‘field’ and refuse. I am sending a request similar to this to the ten architects I consider leaders whom the others follow. Needless to say I should deeply appreciate a candid expression from you in any event.” Wright wrote similar letters to several other architects, giving an indication of Wright’s circle of friends. They include: George Howe, William Lescaxe, John A. Holabird, John Wellborn Root, Jr., Ely Kahn, Thomas Lamb, Buckminster Fuller, Albert Kahn, and Joseph Urban. Wright, \textit{Letters to Architects}, 95.

\textsuperscript{77} Wright, \textit{An Autobiography}, 515-516. See Chapter 3 for more on Saarinen and Wright’s relationship.

inspired Wright towards the spiral form of the final project.\(^7^9\) Mendelsohn claimed that he and Wright were fast friends, although Neutra would later write that there was a formidable language barrier.\(^8^0\) Nonetheless, in 1924, just as Wright was designing the National Life Insurance Tower and the Gordon Strong project, Wright and Mendelsohn connected through a shared interest in creating new forms of architecture for the machine age. Mendelsohn’s decidedly visionary design aesthetic anticipated a high-tech future filled with innovative dynamic forms, new types of commercial architecture, and a growing interest in urban planning, factors that clearly appealed to Wright at this moment.\(^8^1\)

In the late 1920s, while he continued to build relationships in Chicago, the Southwest, and on the West Coast, Wright also developed an entrenched, if highly complicated, connection to that other American skyscraper city, New York. Another source for Wright’s visionary concept of architecture and urbanism in the 1920s may be the thoroughly futuristic multi-level infrastructure found in Ferriss and Corbett’s proposals for New York City. As discussed in Chapter 2, in New York, Corbett’s involvement on the architect’s advisory committee to the

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\(^7^9\) See Mark Reinberger, “The Sugarloaf Mountain Project and Frank Lloyd Wright’s Vision of a New World,” and further discussion below and in Chapter 4.


\(^8^1\) These concepts were reflected in his Einstein Observatory, the Luckenwalde Hat Factory, a Power Station for Palestine, his Schocken Department Store, and many other designs. Mendelsohn designed a “Town Planning Scheme” in 1929, as well as the “Development Scheme of the White City” site in London in 1935. See Mendelsohn, lecture delivered at UCLA School of Architecture, March 17, 1948, in Eric Mendelsohn: Letters of an Architect, 169-170. See also Kathleen James, Erich Mendelsohn and the Architecture of German Modernism (New York: Cambridge University Press, 1997), and Chapter 4. In a 1945 statement, Mendelsohn makes his interest in the future city clear: “Terrified by this desecration of our beautiful land, you will more welcome the great parkways, the new lake fronts, the rehabilitation projects and master plans of our cities to come – the future of a free America, noble in her principles and her visual manifestations.” Mendelsohn, Eric Mendelsohn: Letters of an Architect, 174. Wright continued to stay in touch with Mendelsohn, indicating the strength of Wright’s interest in his work and in his friendship. Mendelsohn had apparently spread the word about Wright in Europe, and Wright asked for assistance coordinating an exhibition in Germany. On November 27, 1930, Wright wrote to Mendelsohn in Berlin – “My dear Erich Mendelsohn, We still remember your visit to Taliesin with pleasure, and I have to thank you for your kindness to my son. Some of your kind words concerning myself have reached me and I hope some of my good words for you have reached you – indirectly perhaps. Wright, Letters to Architects, 85. This was the Frank Lloyd Wright Exhibition at the Berlin Academy of Arts in 1929, for which Mendelsohn delivered an opening speech promoting Wright’s work. Mendelsohn, Eric Mendelsohn: Letters of an Architect, 108-109.
Regional Plan of New York resulted in a number of studies that attempted to mitigate the negative effects of automobile transportation on pedestrians by separating the two types of traffic. Ferriss’ drawings went even further, and transformed the experience of the central business district into an advanced network of multi-level circulation schemes. Other Ferriss illustrations for Corbett’s Regional Plan proposal, and for Raymond Hood’s visionary projects, contained bridges with apartments built into them and raised sidewalks connecting office towers; in both, the drawings emphasized the separation of different types of traffic to improve circulation.

According to a *New York Times* report, at the end of May 1930, Wright’s work was exhibited at the Architectural League in New York, and he was honored with a dinner given at the League’s midtown clubhouse. Guest speakers included several of the most notable skyscraper architects of the period, including Hood, Corbett, and Ralph Walker, as well as Lewis Mumford. Wright’s letters to Hood later in the year reflect a conversational, friendly tone, despite inklings of professional disagreements over Wright’s desire to be included in the 1933 Chicago Exposition, and his eventual exclusion from it. In June of 1930, he essentially asked Hood to keep him in mind as a “consultant or [in a] critical capacity” for the proposed World’s Fair, while in October, he wrote that he was glad to have “found comradeship in my own profession at last – with you at the head of the procession. Stand by me and don’t let me spoil it by any ‘wise-cracks’ or sarcastic suggestions. They are a habit of mine that I am trying to

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83 Willis,160, 162. Willis argues in both cases that the multi-level aspects originated with Corbett and Hood, and that Ferriss was working to illustrate their visions. Regarding Hood’s project, see Orrick Johns, “Bridge Homes: A New Vision of the City,” *The New York Times Magazine* (February 22, 1925): 5.

overcome.” Wright’s eventual conclusion of the 1930s about the skyscraper’s nefarious role in the city was of course quite different from Ferriss, Corbett and Hood’s earlier explorations of the potential of large skyscrapers to solve congestion problems, but in their hypothetical infrastructure projects, Wright appears to have found common ground.

While recognizing the importance of the New York architects’ role in developing an American tradition of visionary architecture and urbanism, Wright became increasingly critical of the city’s architectural elite by the early 1930s, and especially the heavy-handed promotion of European modernism by Hitchcock, Philip Johnson, and the Museum of Modern Art. Wright advocated modernism rather than historicism, but spoke forcefully against the new “international style” that had emerged in Europe and was lately entering practice in the United States. Wright opposed its barren lines, simplified geometry, and self-consciousness, stating, “While the machine has become the tool of the age, a new ideal has grown up beside it. We call the ideal freedom, an interior evolution of the individuality… Why is it necessary for a style to come, spread itself over our ground and destroy the most precious thing we are striving for?”

Henry-Russell Hitchcock, in only the first of several confrontations over the international style in architecture, responded to Wright at lectures he gave at the New School in the fall of 1931, defending the new style against Wright’s assertions.

In February of 1932, as Hitchcock was preparing the MOMA exhibition, Wright heavily criticized the curator’s view of his work. In relation to the Richard Lloyd Jones House in Tulsa, for example, Wright argued that Hitchcock had completely discarded the true value of the house,

85 Wright to Hood, October 31, 1930, in Letters to Architects, 84-85; Wright to Hood, June 2, 1930, in Wright, Letters to Architects, 80-81.
87 In this show, Hitchcock and Philip Johnson categorized the works they included in their exhibition as a cohesive style. The main features of this style were a total removal of applied ornament, the use of new materials, and a focus on the interplay of volumes and space. See Hitchcock and Johnson, The International Style: Architecture Since 1922 (New York: W.W. Norton, 1932).
the “vanish[ing] wall and the significant freedom that may accompany standardization in the Machine age.” Regarding St. Mark’s Tower, Wright stated firmly, “There is no comparison with Bauhaus or any other ‘haus,’” pointing out that his own work was, instead, a “complete organic expression in structure of an architectural idea.” Ultimately, Wright was dissatisfied with Hitchcock’s minimization of his work in relation to the high-tech Machine Age in which it was rooted, and with what Wright saw as Hitchcock’s cheap associations of Wright with European modernism. Wright felt that Hitchcock failed to pay attention to his innovative illustration of American culture. Robert Wojtowicz argued that Wright’s frustration with the MOMA show was in part due to his “professional disagreements” with Hood and Neutra, who featured prominently in Hitchcock and Johnson’s exhibition and publication, and who Wright felt should not have been included. Given the evidence presented concerning Wright’s significant relationships to both architects, however, this argument is insufficient. Even if Wright claimed unhappiness with their inclusion in this specific exhibition, perhaps holding a grudge over his own exclusion from the 1933 Century of Progress Exposition in Chicago, Wright nevertheless remained deeply affected by Hood and Neutra’s distinct models for visionary urbanism.

One of the few specific elements of Wright’s Broadacre City that is somewhat grounded in reality is his superhighway solution to vehicular and population congestion. Leaving aside the

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88 Wright to Hitchcock, February 26, 1932, in Wright, *Letters to Architects*, 135. Wright would later criticize Lewis Mumford’s similar attempt to align his work on Broadacre City with that of the international style: “I don’t know what you can mean by preferring the German tenement and slum solution as preferable to the Broadacre’s minimum house and maximum of space. There can be no possible comparison between the two as to privacy, light and air, living accommodations – or what have you – at $600.00. Add to that, that the tenement unit in the rank and file in Broadacres becomes a complete individual little free holding no less slightly and dignified in quality as an individual home than those near it having more of material resources…” See Wright to Lewis Mumford, April 27, 1935, in Wright, *Letters to Architects*, 145-146; and Mumford, “Sky Line: Mr. Wright’s City; Downtown Dignity,” 63-65 and “Frank Lloyd Wright and the New Pioneers,” *Architectural Record* (April 1929).

visionary aspects of its form, which will be analyzed in more detail later, the idea of a highway itself was not so extraordinary in the context of national infrastructure systems under consideration since the early 1920s. Arthur Comey created diagrams for an arterial highway in 1923, while the federal government expressed interest in creating a national interstate system as millions of cars hit American roadways during the same decade. Additionally, by the late 1920s, Robert Moses had begun implementing his ambitious highway schemes for Long Island and for the west side of Manhattan. Wright surely knew of Moses’ work on highways in New York City.

Wright was fascinated also by other, less realistic concepts for national transportation, electrification, and communication networks, exemplified in particular by Henry Ford in the Muscle Shoals region of Alabama, and Richard Neutra’s imaginary Rush City Reformed. Ford’s project was a predecessor for the Tennessee Valley Authority’s more elaborate system set up by Franklin Delano Roosevelt in 1933; Wright’s reaction to it was integral to the model for a high-tech linear city set up in Broadacres in 1935. The Tennessee River at Muscle Shoals had been dammed by the early 1920s to provide electric power to factories and other industrial production facilities in the region. In 1921, Henry Ford, whom Wright had apparently met in 1910, asked the federal government if he could take over and operate Wilson Dam, the power stations, and nitrate plants already built, proposing a 75-mile-long linear city. A January 1922 article in the

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New York Times called Ford’s design “[a] plan [that] contemplates one of the greatest undertakings in the history of industrial America,” coordinating utility services across a dispersed area and promising to make the Muscle Shoals region of northwest Alabama the focal point of a new series of small factory and residential areas set along the river.94

Given the large amount of publicity surrounding Ford’s design in newspapers and magazines across America in the spring of 1922, it undoubtedly informed Wright’s experience of the American landscape and contributed to his vision of the future city. Indeed, Ford’s plan was not unlike Wright’s eventual scheme for Broadacres: it allowed each family to have a small one-acre plot within what was essentially a self-sufficient factory town connected to the others by a comprehensive electricity network. All buildings were to be constructed out of materials produced in Ford factories.95 The city, stretching for seventy-five miles, was immersed in greenery to promote the good health of its residents and to provide a portion of the region’s food supply. In a 1926 treatise he called Today and Tomorrow, Ford emphasized the plan’s dream of a decentralized, rural community that would “synthesize” agriculture and industry.96 In much the same way that Ford portrayed the role of electricity in his Muscle Shoals plan, Wright too described Broadacre City plan as a linear city, stating: “The stems for the flowering of the new City… will be the great topographical road systems… These great roads unite and separate –

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94 “Ford Plans a City 75 Miles in Length,” New York Times (January 12, 1922), 1. See also Rosenbaum, 55-57.
95 Electrification was key to the Tennessee Valley Authority plan as well. See Paul Hutchinson, “Revolution by Electricity: The Significance of the Tennessee Valley Experiment,” Scribner’s Magazine (October, 1934).
separate and unite in endless series of diversified units passing by farm units, roadside markets, garden schools, dwelling places, [etc…].” He viewed the highway in particular as the “horizontal line of Usonian freedom.” Wright took up Ford’s concept of comprehensive utility services connecting disparate towns, but translated it to the language of high-speed transportation.

When Broadacre City has been aligned with the linear city tradition, it has primarily been in relation to Arturo Soria y Mata’s 1882 urban plan for Madrid. This claim warrants a closer look. Soria y Mata developed a highly efficient, ever-extending set of parallel lines containing separate industrial and residential zones, all meant to connect the city to its natural setting. George Collins described the spread of Soria y Mata’s ideas to the global planning community. In America, Edith Elmer Wood wrote a brief illustrated article about the Madrid linear city experiment in 1921, while European journals published translations and commentary on the plan throughout the 1920s, and architects like Ernst May and N.A. Milyutin designed similar linear housing settlements and decentralized industrial centers in Germany and the USSR. Although Wright may have known about the linear city from Wood’s article and perhaps through other secondary influences like garden cities or May and Milyutin, it seems likelier that Wright was more directly affected by models of this type found closer to home, not only by Ford’s 75-mile city at Muscle Shoals, but also by Richard Neutra’s Rush City Reformed. Both of these

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97 Wright, *When Democracy Builds*, 60. In his 1935 statement “Broadacre City: A New Community Plan,” Wright made multiple statements that imply the plan was meant to be one of multiple units. The design of the “arterial highway” stretching out beyond the frame of the model and master plan drawings would seem to support this. Also, see G. Collins, “Broadacre City,” 64, and Johnson, “Community Planning,” 21.


100 Donald Johnson, however, argues that the Broadacre City plan was not actually meant to be a repeatable linear city at all, but rather part of a regional planning scheme. Johnson cites Wright’s own statement in 1943 that the horizontal line was ‘the great architectural highway’ and the flat plane was to become ‘the regional field.’ See Wright, 1943, 349; and Johnson, *Frank Lloyd Wright Versus America: The 1930s* (Cambridge, MA: MIT Press,
visionary models for the future city would inform Wright’s own design for a system of repeating modular communities, stretching out endlessly across the American landscape, held together by a high-speed multi-layered transportation network.

Wright’s conception of Broadacre City as a repeating linear city, as well as his use of the work as a visionary repository and generator of ideas, relates it in large part to Neutra’s Rush City Reformed project begun in the 1920s. Rush City consisted of numerous bird’s eye views and close ups of an ideal city oriented around highways and rapid transit hubs, made up of a few tall buildings surrounded by low-rise residential structures spreading outwards. Among other visionary building types in the plan, many of which, like the school designs, would reappear in built form later in his career, Neutra designed a high-tech transportation “terminal” that combined an underground train station topped with an airport. As described in Chapter 4, Neutra planned to distribute the massive population of Rush City along a linear “ribbon development” emanating from the downtown center. There are thus clear typological similarities with Wright’s use of technology to create multi-layered infrastructure that might relieve urban traffic and manage urban growth. Neutra, like Wright, was highly engaged with issues of contemporary urbanism, even if Rush City Reformed, like Broadacre City, acted less as a specific plan than as a visionary exploration of possible solutions.

Neutra also had a strong personal connection to Wright, forged during his 1924 apprenticeship, which only strengthened after Neutra left for southern California. As is obvious from their correspondence in the late 1920s, Neutra and Wright continued to have a warm relationship. The letters concern topics both personal and professional, and often reveal

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1990), 122. I don’t find this argument convincing, given that Wright actually categorizes Broadacre City as linear in publications related to the exhibition. See Wright, “Broadacre City: A New Community Plan.”


102 See letters cited in note 73 above, and see Chapter 4 for much more on their relationship.
Wright’s concerns about how his work was perceived during this period. In one letter from August of 1929, for example, Wright wrote to Neutra and his wife regarding a Lewis Mumford review of Wright’s work in a recent issue of the *Architectural Record*. In others, Wright asked very interested questions about Neutra’s family and about his work that he had heard about from publications or from one of Wright’s sons. ¹⁰³

Other, more buildable projects of Neutra’s may have also influenced Wright’s turn towards visionary, futuristic architecture and planning projects in the late 1920s and 1930s, and certainly Wright’s automobile-oriented designs. In Neutra and Schindler’s entry to the League of Nations competition in 1926, for example, the two architects had included automobile access as a key generator of the building’s form. Arriving and departing vehicles would be directed along an L-shaped trajectory passing under a gateway that led to an interior parking lot. ¹⁰⁴ Neutra’s suburban shopping centers, his so-called “roadside markets” discussed in Chapter 4, also may have provided Wright with a model for similar projects. Wright’s close relationship to Neutra and his family, his awareness of Neutra’s progressing career in California, and his sponge-like absorption of influences from a whole host of global sources from the beginning of his career make it likely that Wright saw possibilities in the work of his younger apprentice.

Throughout the 1920s, Wright integrated these myriad influences into several visionary projects of his own that fall into two major categories: automobile architecture, and skyscraper experimentation. Underlying both modes was a fascination with advanced technology in construction and transportation. Although Wright had been obsessed with technology since the beginning of his career, he responded to contemporary issues in a much more systematic way in the 1920s, resulting in an extensive set of articles on these issues published in *Architectural Record*.


¹⁰⁴ See Peatross, 177.
Record from 1927 to 1929.\textsuperscript{105} In “The Architect and the Machine,” for example, Wright questioned the underlying assumptions of machine-age America. Although the machine had certainly allowed for the “acceleration of movement” that characterized modern life, Wright argued that thus far the machine had failed to serve the public, and more importantly, it had fallen short of expressing the contemporary American spirit.\textsuperscript{106} Wright declared, “Architects are or must be masters of the industrial means of their era. They are, or must be – interpreters of the love of life in their era.”\textsuperscript{107} Mumford made a similar claim about Wright’s work in 1925, in the foreword to Wright’s Dutch \textit{Wendigen} publication. Mumford astutely viewed Wright’s work through the lens of technology and futurism, stating that Wright’s work attempted to “apply the logic of the machine to humane building. His architectural conceptions are far removed from the conservative architects who will not carry modern processes to their inevitable conclusions… I trust that the modernism of Mr. Frank Lloyd Wright places him among the new poets and artists,” in contrast to the puritan, reductionist, factory-like aesthetic of Le Corbusier.\textsuperscript{108} Wright’s interest in the relationship between architecture, culture, and technological progress in the 1920s was an important underlying framework for his visionary automobile and skyscraper projects, which in turn informed Broadacre City over the next decade.

\textsuperscript{105} Wright had written and spoken extensively on the intersections of technology, the machine, and the city, most notably in “The Art and Craft of the Machine” of 1901, and in a speech entitled “Chicago Culture” delivered to the Chicago Women’s Aid Society” in 1918. Both of these reflected Wright’s faith in technology to solve the problems of the congested twentieth century city, if that technology could be harnessed in a controlled way. Wright, “Art and Craft of the Machine,” 1901, and Wright, “Chicago Culture,” speech to the Chicago Women’s Aid. 1918. In Frank Lloyd Wright on Architecture: Selected Writings, 1894-1940, ed. Frederick Gutheim (New York: Duell, Sloan and Pearce, 1941), 85-97. For the 1927-1929 articles, see In the Cause of Architecture: Essays by Frank Lloyd Wright for Architectural Record, 1908-1952, ed. Frederick Gutheim (New York: Architectural Record, 1975).


\textsuperscript{107} Wright, “Art and Craft of the Machine,” 133.

\textsuperscript{108} Mumford, foreword to Frank Lloyd Wright and Th.Wijdeveld, \textit{Wendigen. The Life-Work of the American Architect Frank Lloyd Wright} (Santoop, Holland: C.A. Mees, 1925). Letters between the two men concerning Mumford’s review of Broadacre City in \textit{The New Yorker} in 1935, however, show their divergence. Wright was insulted by what he perceived as Mumford’s misunderstanding of the Broadacres plan, while Mumford considered his own views on the city much more adaptable to contemporary contexts than Wright’s. Wright to Mumford, April 27, 1935, and Mumford to Wright, June 25, 193, in Wojtowicz, \textit{Wright and Mumford}, 184-186.
The superhighway system, the automobile objective, and the roadside gas stations and markets found in Broadacre City were the end result of a decade-long process of experimentation with visionary planning and automobile architecture.\footnote{Hitchcock argued that it was Wright’s travels between Arizona and Wisconsin that had inspired his vision for modern gasoline filling stations. See Hitchcock, \textit{In the Nature of Materials, 1887-1941: The Buildings of Frank Lloyd Wright}, 80. For a similar reading of Wright’s relationship to the open highway, see David G. De Long, “Frank Lloyd Wright and the Evolution of the Living City,” in De Long, ed., \textit{Frank Lloyd Wright and the Living City} (Milan, 1998), 26-27.} Prior to the 1920s, Wright designed several small-scale housing and community projects, including University Heights outside Darby, Montana in 1909, the town of Bitter Root near Stevensville, Montana in 1909-1910, a project for a suburban neighborhood south of Chicago in 1913, and a project lead by Rudolph Schindler in 1919 for a veteran’s memorial park along the Columbia River in Washington State. His plan for Bitter Root, while somewhat vague in its conception, contained a surprisingly complex transportation system, with a highway containing vehicles and pedestrians at ground level, with trains running through a depressed center cut in the road, covered only by occasional walkways crossing over the tracks. Wright’s proposal was apparently responsive to a debate about extending electrified rail service from Missoula, Montana that had occurred earlier in 1909.\footnote{Johnson, \textit{“Frank Lloyd Wright’s Community Planning,”} 9-10.} The “non-competitive plan” was submitted to the 1913 National Conference on City Planning’s competition for the development of a suburban quarter section near Chicago (Figure 102). Wright’s design contained several park and recreation facilities, and lots of different types of housing that reflect contemporary social divisions.\footnote{Wright, “Non-Competitive Plan,” in \textit{City Residential Land Development: Studies in Planning: Competitive Plans for Subdividing a Typical Quarter Section of Land in the Outskirts of Chicago}, ed. A. Yeomans, 95-102 (Chicago, 1916), repr. In \textit{Western Architect} 25 (January 1917); See also Johnson, \textit{“Frank Lloyd Wright’s Community Planning.”} 3, 9-10, 12-18; and Twombly, \textit{“Undoing the City: Frank Lloyd Wright’s Planned Communities,”} 544.} The 1919 project for a memorial park
contained similar multi-purpose recreational spaces across a site determined largely by rail
connections and automobile access.  

Although these three projects have frequently been described as the main predecessors to
Wright’s Broadacre City plan, in their emphasis on the quarter-section and on imposing new
transportation modes on rural landscapes of the American West, this view gives short shrift to
Wright’s subsequent turn towards a more sweeping, visionary mission in the 1920s, epitomized
in his work on skyscrapers, over-scaled futuristic structures, and automobile architecture.

Wright’s designs were centered on two broad thematic areas that often intersected: the highway
of the American West, and the massive towers of the skyscraper city. These projects, many of
which would reappear almost verbatim in Broadacre City, included his desert compound and
National Life Insurance building for A.M. Johnson, the spiral planetarium and automobile
objective for Gordon Strong in Maryland, the Steel Cathedral project, skyscrapers in New York
and Chicago, and designs for roadside gas stations and markets. This array of work, designed by
Wright in a period in which the car imposed such dramatic shifts to the landscape around him,
reflected the Wright’s all-encompassing interest in the future of American urbanism that would
be manifested in complex ways over the next several years. In addition to the conceptual
relationship in regards to metropolitan expansion and urban planning for the future city that
Wright drew from Central Europe and from the American West, formally, Wright’s sources for
his 1920s work are almost too numerous to count.

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113 Donald Leslie Johnson, for example, emphasized Wright’s “rationalization of fundamental physical and
programmatic determinants in his community and city planning projects” in his 1913 plan for suburban Chicago.
This is overstating the relationship between the 1913 plan and the 1935 project for Broadacres. See Johnson, “Frank
Lloyd Wright’s Community Planning,” 3, 8.
114 Among many others, the possibilities include McKim, Mead, and White’s Penn Station and Warren and
Wetmore’s Grand Central Terminal, Edgar Chambless’s Roadtown of 1910, a spiral recreation tower for Cleveland,
Ohio by the inventor C.H. Knight in 1911, and more recently, Le Corbusier’s 1922 Contemporary City of Three
Aside from the previously mentioned Desert Compound and the Doheny Ranch development, the most significant examples of Wright’s own architecture related to automobile travel are the Gordon Strong project, and the roadside markets and gas stations. In 1924, Wright began working on a new project for the real estate magnate Gordon Strong, with whom he had several mutual friends in the Chicago business world. Wright was charged with designing a tall structure on Sugar Loaf Mountain that would “serve as an objective for short motor trips” for visitors from Maryland and the Washington DC area. Strong specified several types of space in the recreational facility, including terraces, covered galleries, dance floors, some overnight accommodations and food vendors, a large planetarium, and many windowed areas for viewing the surrounding landscape. The program called for parking for 200-500 cars inside the facility and on a sloped area north of the mountain large enough to hold one thousand. The entire cantilevered structure sat about 112 feet above the mountain’s summit, with thirty-foot retaining walls on the steep southern slope of the mountain. The main spiral was around 190 feet long at its base, with bridges extending outward more than four hundred feet. From a programmatic point of view, the project echoed Barnsdall’s Olive Hill concept, and foresaw

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115 See Wright, An Autobiography, 327 on highways and cars.
117 Wright often described the Gordon Strong in terms of its function as a community space, as in Wright, When Democracy Builds, 14.
118 Letter of agreement from Gordon Strong to FLW, September 22, 1924, Stronghold. Cited in De Long, “Frank Lloyd Wright: Designs for an American Landscape, 1922-1932,” 84. See also: Letter from Strong to Wright, September 22, 1924, and other letters between Strong and Wright in the Frank Lloyd Wright Archives. The definitive secondary source on the project is Mark Reinberger’s “The Sugarloaf Mountain Project and Frank Lloyd Wright’s Vision of a New World.” Some drawings were published in Drexler, The Drawings of Frank Lloyd Wright (New York, 1962), pls. 106-113 and 270-272.
Broadacre city; the automobile objective was meant to serve as a multi-purpose community gathering space.

The archival drawings for the Sugarloaf scheme reflect three distinct phases: the early preparatory formation of a boxier type of layered ziggurat, larger-scale plans for a “theater scheme” that featured an auditorium at the project’s center, and the final studies for the “planetarium scheme” (Figure 103).119 In the first sketches, cars would ascend clockwise, rotate around a ramp at the top of the spiral, and then descend on a counterclockwise ramp that ran underneath the ascending one; the internal parking structures were accessible off of the descending ramp. At some point, Wright developed bold cantilevers that would form the ascending ramp in later drawings, as well as a tall thin mast emerging from the spiral that Mark Reinberger has interpreted as a mooring facility for a dirigible (Figure 104).120 In the second phase, Wright focused his attention on a central semi-circular auditorium and stage, and a diagonal tower on the edge of the spiral replaced the thin mast. Various restaurants, terraces, and other areas were included on three levels above the mezzanine.121 Although the theater plan was a fully developed scheme, Wright altered the project once again, removing the auditorium, the internal parking, and the smaller separate spaces, and adding a massive domed planetarium instead. The planetarium took over the interior of the automobile objective, which was accessed from ground level scientific exhibits by four stairways. The rooftop “objective” remained, but the broad galleries for viewing the surrounding landscape along the various levels of earlier

119 “Gordon Strong Automobile Objective, Sugar Loaf Mountain, MD, 1925, #2505, Frank Lloyd Wright Archives, Columbia University. Also see: Wright to Strong, November 10 1925; Wright to Strong, undated but obviously late December 1924; Strong to Wright, April 6, 1925; and telegram Wright to Strong, August 26, 1925, cited in Reinberger, 40.
120 Reinberger, 40. Although the mast is never specifically identified, Reinberger interviewed Charles F. Bowers, the former president of Stronghold, Inc. and a personal friend of Gordon Strong; in the interview, Bowers stated that Strong had mentioned that a dirigible mast was planned at one point. A letter from Strong to Wright in 1929 indicates Strong held on to some of the early drawings and would have known about the mast.
121 “Gordon Strong Automobile Objective, Sugar Loaf Mountain, MD, 1925, #2505, Frank Lloyd Wright Archives, Columbia University. See also Reinberger, 41.
schemes were now replaced by restaurants, storage, and service spaces. The exterior form also changed in Wright’s third scheme, streamlining the spirals, highlighting horizontal lines over the vertical, and incorporating a more dynamic window pattern, all of which served to emphasize the circulation of automobiles throughout the structure (Figure 105).

The multiple stages of the Sugarloaf Mountain design, and especially the shift toward the planetarium and automobile mobility, indicate Wright’s fascination with the technology of modern life and transportation that would appear again and again in his work over the next decade. Indeed, rather than serving simply as a symbol of the dynamism of automobile transportation, the form of the Automobile Objective’s spiral also implied continuous progress and new possibilities for mobility brought on by automobiles. Throughout the design process, it is clear that for Wright, the car was the primary generator of form, much as it would be for Le Corbusier in the Villa Savoye of 1928. Wright wrote to Gordon Strong in October of 1925 that the building would “ris[e] and [adapt] itself to the uninterrupted movement of people sitting comfortably in their own cars in a novel circumstance with the whole landscape revolving about them, as exposed to view as though they were in an aeroplane.” Wright had already connected the cantilever form of his earlier house designs to automobile design, in the little-known 1920 design for an angular car with a cantilevered beam jutting out of the rear to support the roof. Meanwhile, as discussed in the introduction, multi-level ramps were becoming increasingly common in parking garages by the mid-1920s. The reinforced concrete material Wright selected

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122 “Gordon Strong Automobile Objective,” Sugar Loaf Mountain, MD, 1925, #2505, Frank Lloyd Wright Archives, Columbia University. See also Reinberger, 43-44.
124 In Wright, The Industrial Revolution Runs Away, 67, the architect asserted that the automobile wholly altered the way we experience space; the automobile made space dynamic.
125 Wright to Strong, October 20, 1925. Cited in Reinberger, 47-48.
126 “Automobile with Cantilevered Top,” 1920, Frank Lloyd Wright Archives, Columbia University.
for the project also had a significant history of use in automotive factories and car service facilities.\textsuperscript{127}

Wright’s design had begun as an boxy geometric tower, but by the fall of 1924, after the Neutruras arrived at Taliesin, and Erich Mendelsohn visited, the design soon shifted to a much more dynamic, sculptural, spiral form that echoed the ramps of contemporary parking garages and allowed for efficient access for incoming and exiting cars, although by the final scheme the parking within the building itself had been removed.\textsuperscript{128} In the end, in October of 1925, Gordon Strong rejected Wright’s design, criticizing it as an “automobile observatory… without any relation to its surroundings,” and he was apparently unhappy with the focus on car accessibility over the tourist experience.\textsuperscript{129} Wright’s insistent departure into technological whimsy, and away from the entertainment resort envisioned by Strong, may have ultimately doomed the project.

The concept of a multi-purpose, automobile-oriented facility appeared again not only in Broadacre City’s replica of the Gordon Strong Sugarloaf project, but also in Wright’s 1938 Olin Terraces project for Madison, Wisconsin, and his 1947 Point Park Coney Island civic center in Pittsburgh, the latter commissioned by Edgar Kaufmann.\textsuperscript{130} The Olin Terraces project began as a lakeside mega-structure containing offices, government buildings, public parks, an auditorium, a railroad station, parking lots, and boathouses.\textsuperscript{131} The terrace project, with its futuristic ramps and

\textsuperscript{127} Strong to Wright, November 14, 1924. Cited in Reinberger, 48. See “Automobile Reference Number,” \textit{Architectural Forum} 46 (March 1927), entire issue; \textit{The Legacy of Albert Kahn} (Detroit, 1970), and Gran Hildebrand, \textit{Designing for Industry} (Cambridge, MA, 1974).

\textsuperscript{128} See note 80 above relating to Mendelsohn’s probable influence. Thomas Hines argues that Neutra was more involved with the design than normally understood, and in fact took two drawings with him when he moved out to California; see the two drawings in Neutra’s hand from the Neutra Archive, UCLA Special Collections. See Hines, \textit{Richard Neutra and the Search for Modern Architecture}, 54, figs. 38, 39.

\textsuperscript{129} Strong to Wright, October 14, 1925, Stronghold, cited in De Long, “Frank Lloyd Wright: Designs for an American Landscape, 1922-1932,” 97. See also Reinberger 50.


spirals that were not built until the 1990s, was intended to link the Wisconsin State Capitol and Lake Monona. The Pittsburgh civic center was also conceived as a site-specific project situated on a downtown corner site at the intersection of the Allegheny and Monongahela rivers. Here, Wright called for demolishing existing bridges and replacing them with multi-layered cantilevered ones, and constructing a large circular building surrounded by a spiral roadway (Figure 106). Two smaller circular and similarly ramped buildings sat off to the side, while a long hall terminating with a 500-foot tower stretched outward towards the corner of the site. The bulk of the spaces were dedicated to entertainment, recreation, and community gathering spaces, rather than work or government; auditoriums, restaurants, a boating dock, and an aquarium were key elements of Wright’s scheme. The project contained a similarly absurd sense of scale as Eliel Saarinen’s lakefront civic center for Chicago, accommodating over 100,000 cars in underground and below-grade garages. Cars, trucks and pedestrians would enter the bridges on separate decks and emerge into the main structure where they were then channeled to the central business district, the spiral roadway, the parking lots, or a loading area for the main auditorium. Robert Moses had designed a traffic plan for Pittsburgh in 1939, and Wright, already familiar with the planner’s work in New York City, must have considered Moses’ design while extrapolating it far into the future.  

Wright also included in Broadacre City designs derived from his designs from 1931 and 1932 for gas stations and a sheet-metal “Pre-Fab Roadside Market,” a shopping center positioned along an arterial road that is remarkably similar in concept to Richard Neutra’s own “drive-in

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132 See Cleary, 145.
133 Wright to Robert Moses, April 4, 1947; Moses to Wright, April 9, 1947; Wright to Moses, April 15, 1947; all in the Frank Lloyd Wright Archives, Columbia University. See also Robert Moses, *Arterial Plan for Pittsburgh*, prepared for the Pittsburgh Regional Planning Association (Pittsburgh, 1939).
market” of the late 1920s. Wright designed multiple gas stations, a “Corner Station Prototype,” a small-scale “Standard Overhead Service Station,” a grander one referred to as the “Monolithic Filling Station,” and an “Automobile/Airplane Service Station” (Figure 107). At different scales, Wright’s gas stations were highly geometric, included his familiar cantilevered design, and clearly articulated the different functional areas like restrooms, storage spaces, markets, and service garages. The drawing for the large station included a garage large enough to hold 24 cars, for example. Wright’s designated “Roadside Market,” also referred to as the “Davidson Wayside Markets,” was positioned at the intersection of two highways, and expanded the service station and Neutra’s suburban market ideas to an even greater extent. The design called for a horizontally oriented, partially open-air, reinforced concrete, copper and glass structure with a copper pyramid with terraced greenery on top. The market consisted of a wide variety of grocery stores, houseware shops, and restaurants on two levels. The market was designed to be exceedingly accessible for passing automobiles, and the drawings reflect this in a variety of ways. Tiny angular automobiles are depicted driving into the market on one side, and leaving on the other, and a gas station is shown on one corner of the premises near the surrounding parking lot. This roadside market project, later incorporated into Broadacre City, would seem to contradict somewhat the traditional reading of that plan as being solely about decentralization. In fact, Wright consolidated myriad economic functions under the same roof, in order to facilitate a highly efficient shopping process for the residents of the future city.

134 Johnson, “Frank Lloyd Wright’s Community Planning,” 22; for more on Davidson, the markets, and the village, see Johnson, Frank Lloyd Wright versus America, 129-134. Regarding Neutra, see Chapter 4.
135 See the drawings: “Corner Station Prototype,” 1930, #3004; “Monolithic Filling Station, 1931, #3105; “Standard Overhead Service Station, 1932, #3206; and “Automobile/Airplane Service Station, 1932, #3210, in the Frank Lloyd Wright archives, Columbia University, and Hitchcock, 80.
136 “Pre-Fab Roadside Market,” 1932, #3205, Frank Lloyd Wright Archives, Columbia University.
In addition to the automobile architecture that expressed Wright’s fascination with technology, mobility and the burgeoning car culture of the American West, the architect spent the 1920s experimenting, in a similarly visionary mode, with urban architecture and especially with the skyscraper. Wright’s interest in controlling urban scale is evident from the early 1920s, first in the Chicago National Life Insurance Tower of 1924, his imaginary schemes for a “Steel Cathedral” and “Skyscraper Regulation” in 1926, and in somewhat more realistic plans for St. Mark’s in the Bowery in New York in 1929, and the Chicago Grouped Apartment Towers in 1930. For Wright, the skyscraper was a manifestation of American social, political, and economic ideology, and as such should be embedded with the same technological innovation, emphasis on movement, and accommodation of future population growth as his automobile architecture. Wright’s view of the city in the 1920s, however much it would shift over the next decade, was in this way rather different from the more practical, immediate concerns of theorists like Lewis Mumford or Thomas Adams.137

Wright’s first skyscraper was actually a relatively little-known project for San Francisco in 1913 named “The Call Building,” commissioned as an addition to the existing Spreckels Building that would serve as the newspaper’s headquarters.138 The building generally resembled a Louis Sullivan skyscraper, with a façade made up of a pattern of vertical piers topped with a horizontal cantilevered roof (Figure 108). The reinforced concrete design contained a complex series of decorative elements obviously based on Vienna Secession designs.139 But it is Wright’s

139 Anthony Alofsin has written convincingly on the specific Viennese motifs, which include, among other things, the emphasis on the entryway, the multiple frame form from designers like Josef Hoffmann and Joseph Olbrich, and
integration of the building into the urban fabric that would prove most relevant to his urban architecture through the early 1930s, a fact that has too often been ignored in analyses of Wright’s later skyscrapers. To fit the Call Building into its site adjacent to another tall building, Wright decided to continue the street façade, but with a new stylistic vocabulary, extending the entire complex the length of the block down Market to Fourth Street. This was not altogether different from the concept of architectural uniformity explored in different ways by Sitte and Wagner in Vienna. The San Francisco project was thus a clear statement of the influence of Central Europe not just in the building’s design elements, but also in its relationship to the surrounding urban context.

Wright returned to skyscraper design in the mid-1920s, when A.M. Johnson, who had sponsored the Desert Compound project, asked Wright to design a new headquarters for the National Life Insurance Company in Water Tower Square on Chicago’s north side. By the middle of 1924, Wright had begun preparatory drawings for the project, a task to which Richard Neutra would contribute during his apprenticeship at Taliesin in the fall of that year. Wright decided to create a standardized system of glass-faced cantilevered floors stemming off of a central thin slab supporting structure. The system of interlocking forms thus allowed light, and indeed, the external city itself, to enter both the projecting wings and the main block tower. Additionally, the building was at a relatively appropriate scale to the surrounding square, rather than dominating it as a single-block monumental skyscraper might have done. From a technical standpoint, Wright’s skyscraper was innovative, consisting of glass-filled copper sheaths hanging

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the preponderance of angular, geometrically abstracted sculpture that Wright included at the entrance to the Call Building. See: Alofsin, “The Call Building: Frank Lloyd Wright’s Skyscraper for San Francisco,” 17.

off of the cantilevered arms, rather than using an external skeleton that was typical of 1920s skyscrapers. \textsuperscript{141} The building would sit in the dense spatial environment of Chicago’s north side, fully engaged in an urban setting in a way that would seem to contradict later historians’ view of Wright’s articulation of isolated towers (Figure 109). \textsuperscript{142} Wright was apparently able to show preliminary schemes for the National Life Tower to Louis Sullivan before he died. In Wright’s story of this meeting, Sullivan saw how the student had exceeded the master in skyscraper architecture, saying, “I had faith that it would come. It is a work of great art. I knew what I was talking about all those years – you see? I could never had done this building myself, but I believe that but for me, you could never have done it.” \textsuperscript{143} Wright obviously included this quotation in his autobiography as a means of legitimizing his place in architectural history, but it nevertheless makes clear his self-assessment of the National Life project, as an extension of Sullivan’s formal and functional innovations in tall office buildings. \textsuperscript{144} Although totally different stylistically, Wright’s massive skyscraper along the newly expanded Michigan Avenue was also embedded with a similar goal as Eliel Saarinen’s Tribune Tower and Civic Center projects – to express the spirit and vast future potential that characterized Chicago in 1924.

In 1926 Wright developed a so-called “skyscraper regulation” plan that translated the specific project for the National Life Insurance company into a more general, theoretical model, incorporating a system of tri-level transportation modalities that clearly echoed the futuristic visions of both Harvey Wiley Corbett’s 1923 schemes for Manhattan sponsored by the Regional

\textsuperscript{141} Indeed, Hitchcock would view the National Life Insurance Tower as significantly more technologically advanced than many of the skyscrapers included in his International Style exhibition, like Howe and Lescave and Hood’s McGraw Hill building. See Hitchcock, 81, and “Skyscraper Project,” 1924, #2406, Frank Lloyd Wright Archives, Columbia University. For more description of the building in space, see Mostoller, 13-14.

\textsuperscript{142} Hitchcock, for example, focuses on this as a harbinger of modernism. I am more interested in Wright’s integration of towers, in his urbanistic thinking.

\textsuperscript{143} Wright, \textit{An Autobiography}, 259.

Plan Association, and Richard Neutra’s Rush City Reformed, already in progress in the mid-1920s. Wright’s drawings show a hypothetical set of two urban blocks, a perimeter pattern with an inner court, and a street-alley-street pattern (Figure 110). The plan was made up of a series of six to ten story tall buildings with towers rising from their corners. Shops were located at the second level, served by pedestrian arcades bridging the streets. Cars and trucks moved through the space at the ground level, while a subway system ran underneath. The plan also seems to comment on the commercialization and politicization of the skyscraper city, including billboards and signs with political slogans and listing out fake names for commercial buildings in the margins.

Also in 1926, Wright developed a completely fantastical scheme for a “Steel Cathedral” a multi-denomination church that was nearly twice the size of the Eiffel Tower and meant to hold a million worshippers. The steel teepee-like structure held up a plan principally constructed as a series of intersecting polygons and triangles, narrowing towards the top as the cathedral reached ever higher (Figure 111). Wright pulled many of his ideas for this project from the similarly imaginative concept drawn up by his client, Reverend William Norman Guthrie of the Church of St. Mark’s-in-the-Bowery. Guthrie envisioned a “modernist” cathedral with thirteen sides that would combine in steel and glass the interior dome of the Cathedral of Florence and the enormous scale of the Egyptian pyramids. Wright’s sketches for the project from 1926 reveal that automobile access was critical to the plan: separate entrances for cars and pedestrians were


146 “Skyscraper Regulation,” 1926, #2603, Frank Lloyd Wright Archives, Columbia University.


148 Guthrie delivered a sermon on this topic, which was described in: “Super-Cathedral, 1500 Feet High, Seating 25,000, is Urged by Dr. Guthrie,” San Francisco Examiner (April 13, 1925): 1. See also Siry, “Wright and Worshipping Communities,” 38.
articulated, and an interior and exterior spiral ramp appears to ascend the tower from the bottom to the top. The cathedral was situated within a “terrace park,” and sat on top of a large underground parking garage. Just like the Automobile Objective, the service stations, and other projects, the Steel Cathedral was included in Broadacre City in 1935, providing further evidence of Wright’s interest in the skyscraper as an integral element of visionary urbanism, even as he criticized their dominance of American cities in his writings and public lectures.

In “Sheet Metal and a Modern Instance,” another article in the *Architectural Record* series, Wright explained his St. Mark’s Tower in New York, a skyscraper commission that captured Wright’s attention throughout 1929. The eighteen story tower contained the wholly new form of layered cantilevers and blend of verticality and horizontal movement present in the National Life Insurance Tower, the Gordon Strong project, and later, Broadacre City (Figure 112). According to Wright, “the advantages offered by the material and method add up most heavily in their own favor where they can go farthest - either up or crosswise.”

Much like National Life, Wright used a system of copper and glass wall screens in the St. Mark’s skyscraper, though with a rather different plan. Instead of a slab with projecting arms, Wright at St. Mark’s instead grouped four polygonal duplex apartments on each floor surrounding a central mechanical services core and four reinforced concrete supports. In relation to the technical advances of Wright’s proposal, in a *New York Times* review, H.I. Brock astutely described the visionary qualities that characterized Wright’s work during this period, writing, “Where William

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149 “Steel Cathedral,” #2602, Frank Lloyd Wright Archives, Columbia University.
151 Wright, “Sheet Metal and a Modern Instance,” 217.
Morris looked back yearningly at the handicraftsman to save the world for beauty, Wright looks forward enthusiastically to the power plant and the concrete mixer for the same service.”

Wright also made clear the skyscraper’s urban context, illustrating it within a dense landscape of other buildings at the corner of Second Avenue and East Tenth Street. Wright began in New York an incremental, if incomplete, shift towards the tower as a singular freestanding monument.

The St. Mark’s Tower commission was never constructed due to lack of financing, although the architects had consulted with the Manhattan Bureau of Buildings regarding zoning regulations and it was evidently viewed as a buildable project. In any event, over the next year, Wright adapted the model he developed in New York to a design for a group of apartment towers on a site along Lake Michigan in Chicago (Figure 113). The Chicago towers were a blend of the earlier National Life and St. Mark’s projects, combining the linear cluster form with a central core polygonal plan. The drawings show the towers placed in a garden landscape set within the fast-moving multi-modal transportation framework of the modern city; automobile traffic speeds along a highway, and a dirigible flies above. Yet notes on the drawing indicate again that Wright was still extremely interested in the question of how a skyscraper would fit within a larger urban landscape: “Building may come all the way to the edge as you please,” and “There may be an alley here,” and so on. It is this expression of a tower, connected to the city via high-speed infrastructure, which would reappear in Broadacres. In Wright’s future city, towers like the Steel Cathedral, the automobile objective, and the apartment buildings, like the highways themselves, were intended to symbolize civic identity across a dispersed landscape.

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153 Brock, 11, 19. Brock said that Raymond Hood believed that among contemporary architects, Wright was the best for moving “toward enfranchising and reforming the art of architecture to meet the needs of modern life.”

154 Wright would again explore the ideas he developed in St. Mark’s and the Chicago apartments in his Crystal Heights Project in Washington DC in 1940. See Mostoller, 16; For the Chicago Grouped Apartment Towers, Chicago, Illinois, 1930, see “Grouped Tower,” Chicago, 1930, #3001, Frank Lloyd Wright Archives, Columbia University, and Hitchcock, 81.

155 “Grouped Tower,” Chicago, 1930, #3001, Frank Lloyd Wright Archives, Columbia University.
Despite the fact that Wright spent a significant portion of his time in the late 1920s experimenting with skyscraper designs, and was highly invested in contemporary debates about urban congestion occurring at the same time, by 1930 he became increasingly critical of the skyscraper typology. His most important statements on the city, and on skyscrapers as the embodiment of urban centralization, are the lectures he delivered at Princeton University in 1930 and his book *The Disappearing City* of 1932. In these speeches and publications, Wright forcefully criticized the skyscraper agglomerations that then characterized the central business districts of cities like Chicago or New York, and suggested proposals he would explore in Broadacre City.  

The Kahn Lectures, as his Princeton talks are known, provided the clearest exposition of Wright’s paradoxical embrace of modern life. He simultaneously celebrated machine technology in his lecture on “Machinery, Materials and Men,” and disparaged the centralized built environment in “The Tyranny of the Skyscraper” and “The City,” all while designing tall buildings for New York and Chicago and forging friendships with Hood, Corbett, and Ely Jacques Kahn. Wright’s loud pronouncements on the ills of the vertical city, whatever his own involvement there, were meant to prove that the master-architect alone could deliver a solution, an idea that would sit at the heart of Broadacre City.

“Machinery, Materials and Men” was essentially a restatement of his turn of the century speech “The Art and Craft of the Machine,” but given now at a time of even greater technological innovations. New techniques and new labor practices were more necessary than ever in the machine age. Wright argued that in Chicago and other modern American cities in

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156 See Willis, *Form Follows Finance: Skyscrapers and Skylines in New York and Chicago* (New York: Princeton Architectural Press, 1995) for more on the history of skyscraper development in both cities, and Chapter 2 for more on American urbanism in the early twentieth century. See also, Alofsin, “Broadacre City: The Reception of a Modernist Vision,” 12.

1930, it was not difficult to see “that all this magnificent resource of machine-power and superior material has brought to us, so far, is degradation.” Machine technology and its consequences in the late-nineteenth century had an indelible effect on Wright in his early career, and his renewed vigor on the subject of technology in the late 1920s proves a continued interest in connecting his design theory and practice to the real world.

In two other Princeton lectures, Wright described the problems of urban congestion for circulation patterns, tenant/landlord relations, and the social lives of residents, and proposed concepts like automobile-driven decentralization and “Usonia” that he would develop in more detail over the next five years. In both “The Tyranny of the Skyscraper” and “The City,” Wright focused on skyscrapers as a key factor in having created urban economic inequality. Although he retained his deep engagement with the skyscraper as a typology, mentioning Louis Sullivan’s Wainwright Building as a “triumph of imaginative vision,” for example, Wright went on to argue that the super-concentration of extremely tall skyscrapers contributed both to the late-1920s real estate bubble and to the overcrowding of people and vehicles they were meant to solve in the first place. Landlords became wealthy at the expense of average renters, and community and social life suffered. It was this exploitation of the citizenry, the “mobocracy” as Wright later termed it, which could potentially lead to social unrest and should be eradicated through high-speed horizontality.

158 Wright, “Machinery, Materials and Men,” 74.
tools of transportation and communication like cars, radio and the telephone, had made a centralized community structure irrelevant.\textsuperscript{161}

Taken together, the Princeton lectures also reveal a picture of an ideal city, one that looks remarkably similar to Neutra’s Rush City Reformed, to a rural version of Corbett and Ferriss’ visions for Manhattan, or to Wright’s own Broadacre City as conceived in 1935. The ideal city did not reject skyscrapers or urbanism outright; rather, it rejected congestion and concentration in favor of a dispersed system of linear communities that would retain a unified identity through transportation connections and nodal towers that would serve as gathering spaces.\textsuperscript{162} Wright in these lectures called for one-acre land division, described the importance of service stations as neighborhood distribution centers, and examined the role of telecommunication networks to spread information among remote populations. The ideal city would consist of a “complete mobilization of the people,” with the highways themselves “becoming the decentralized metropolis.”\textsuperscript{163} Traffic would be separated by mode of transportation, and there would be elevated sidewalks for pedestrians running along storefronts, with cantilevered car storage underneath these passageways.\textsuperscript{164} Both pedestrian and automobile traffic would be able to circulate more efficiently and more safely. Even as Wright criticized the centralized visions of a futuristic Manhattan embodied in the work of Ferriss and Corbett, he explicated a nearly identical concept of separated traffic and multi-level pedestrian and automobile circulation in his 1930 Princeton Lectures. For Wright, the acceleration of modern life had simultaneously caused the congestion problem and would allow for its resolution in a new model of an American city.

The conflicting posture towards urbanism and modern technology in these writings is

\textsuperscript{161} Wright, “The City,” 165, 169.
\textsuperscript{162} Wright, “The City,” 175-176; Wright, “The Tyranny of the Skyscraper,” 154, 158.
\textsuperscript{163} Wright, “The City,” 176-177.
\textsuperscript{164} Wright, “Tyranny of the Skyscraper,” 158. There are no illustrations included in these publications of Wright’s lectures, so it is unclear how this would actually work in practice.
emblematic of Wright’s growing interest in fashioning a legacy for himself within architectural history, as his autobiography of a few years later made patently clear.

The ideal skyscraper within this futuristic city was also described in Wright’s Princeton lectures. Wright argued for towers with central cores like his National Life or St. Mark’s projects, skyscrapers that integrated light, park space, and city streets into the building’s interlocking forms.\textsuperscript{165} Wright’s inclusion of towers within his ideal city also contained an implied argument for variety in planning and style. Wright declared that humans needed to see an array of scales and spaces in the setting around them: “We want the electric spark of popular curiosity and surprise to come to life again, along the highways and byways and over every acre of the land.”\textsuperscript{166} Wright felt that beauty would emerge by letting necessity dictate planning and architectural forms, rather than creating false pictorial environments that he thought dominated the modern city.\textsuperscript{167} For Wright, dispersion, controlled and managed in a manner that would express American values, was the most efficient way of accommodating America’s inevitable population expansion into the future.

In mid-November of 1931, Wright delivered lectures on similar topics at the New School in New York, this time declaring in blunt terms his views of Rockefeller Center and the Empire State Building.\textsuperscript{168} He apparently stated, in no uncertain terms, that “Radio City, architecturally speaking, is dead before it is born,” and that “the Empire State Building is a tomb that will mark the end of an epoch,” repeating a quotation he had heard.\textsuperscript{169} He was primarily interested in the

\begin{footnotes}
\item[165] Ibid.
\item[166] Wright, “The City,” 178; Wright, “The Tyranny of the Skyscraper,” 162-164. See Chapter 1 for more on this.
\item[168] Wright also delivered lectures on similar topics at the Chicago Art Institute in 1931: Frank Lloyd Wright, \textit{Two Lectures on Architecture: The Scammon Lectures} (Chicago: The Art Institute, 1931); See also: “Frank Lloyd Wright Tells of Broad Acre City,” \textit{City Club Bulletin} 25 (February 15, 1932): 27, 29; Frank Lloyd Wright, “The City of Tomorrow,” \textit{Pictorial Review} 34 (March 1933).
\end{footnotes}
failures of contemporary skyscrapers to attend to how the building would affect the individual user, asking: “Who but the landlord and the bank are benefited by skyscrapers? They are Molochs raised for commercial greatness.” In Wright’s view, modern technology in transportation and communications told of a future in which urban concentration was unnecessary and ultimately irrelevant. Technology allowed architects and planners to think up new ways to create the sense of community and collective cultural identity that lay at the heart of the city throughout history.

These last lectures reflect the increasingly contrarian turn in Wright’s statements on the city that would be synthesized in 1932, in a lengthy response to Le Corbusier’s visionary urbanism published in The New York Times Magazine in which he first proposed a plan called Broadacre City, and in Wright’s book that same year titled The Disappearing City. Both texts reflect the American architect’s interrogation of urban form and far-reaching knowledge of modern transit and infrastructure issues. In relation to Le Corbusier, Wright disputed what he saw as a naïve attempt at city planning that merely set “feudal towers a little further apart” amid green space. Wright expanded on the ideal city he mentioned in his lectures from the previous two years, focusing especially on the benefits of the individually owned automobile and the network of highways in development across the United States that could solve contemporary traffic problems. Wright saw in these new technologies and roads a “new release of human activity within reach of every one – the basis not only of adventure and romance with nature, but of a safer, saner, less anxious life for a free people.” Traffic lanes would be broad and

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170 Ibid.
173 Ibid., 8-9. See in the article the following illustrations: The Future – A Design for an Apartment Building in the “Broadacre City.” The St. Mark’s Tower drawing; The Present – Jammed Streets Overhung by the Skyscraper.”
\end{flushleft}
efficient, carrying a variety of automobiles down highways free of grade crossings and with off-
ramps and access roads leading to service stations, roadside markets, and many of the same
agricultural, residential, and recreational spaces that would reappear in Broadacre City. Wright
even foresaw the computerized car of the twenty-first century, describing how an automobile
driver in this future city could “[press] a variety of buttons or turn an indicator and obtain any
section he desires of the modern newspaper…He picks by sound or sight whatever he is
interested in… All over the surface of the globe, in fact, if he pleases, he may listen in.”174 The
article expresses an extraordinarily optimistic view of current technology, arguing that the
futuristic life hinted at by the still primitive airplanes, cars, radios and movies of the early 1930s
would shortly be replaced by technological innovations beyond imagination.175

It is in The Disappearing City, though, that Wright articulated these ideas in greatest
detail. This book, much more than his other publications on the subject, attempted to justify
Wright’s visionary case for a decentralized city. Wright systematically argued against the
wasteful and expensive concentration of people in rapidly decaying center cities. He believed
that cars and modern communication methods allowed for cheaper, more efficient, and more
humane communities to expand outward into the countryside of “Usonia,” the term he used here
for the first time.176 The illustrations in The Disappearing City, just like his lectures and articles,
do not consist of specific diagrams or illustrations of the proposed project, but instead comprise
generalized imagery of overbuilt urban cores, pollution, and traffic congestion, among other

174 Ibid., 9.
175 Wright also published an article in American Architect in 1932 which also promoted similar ideas as the final Broadacre City model, along with some even more futuristic ones like highways that could functioned as channels for both automobile and airplane transportation. Farm units and factories in this depiction were set within a ten-mile radius of each market, and within walking distance of residential areas. The article contained a bird’s eye charcoal sketch showing an intersection of several major highways, with a few isolated buildings positioned in an otherwise rural landscape. See: Wright, “Today… Tomorrow: On These Pages a Story of America Tomorrow.”
176 See Wright, The Disappearing City, 16, and elsewhere. See also The Disappearing City, 29-33 for a discussion of how congested cities affect human beings.
broad topics (Figure 114). It was not until Wright’s display of his model for Broadacre City at Rockefeller Center in April of 1935, and its publication in Architectural Record on that occasion, that a full visual account of Wright’s plan would emerge. In The Disappearing City itself, Wright laid out several arguments against vertical concentration and the failure to embrace modern technology in the modern city, calling on his own previous discussion of “rent” to support these ideas. Wright made several statements throughout the book promoting the individualism of decentralization in opposition to the authoritarian rule of centralization, and described some of the important underlying concepts in Broadacre City, such as the new scale of infrastructure required by the automobile, and the effects of mobilization on the human character.\footnote{See Wright, The Disappearing City, 15-17, 32, 63-64, for example. These issues are also described in Johnson, “Frank Lloyd Wright’s Community Planning,” 19; and Johnson, Frank Lloyd Wright Versus America, 110.}

Wright would go on to adapt and explain his ideas about city planning in several other publications over the course of the rest of his career, including in The Living City, The Industrial Revolution Runs Away, and Genius and the Mobocracy, among others, although these latter texts should be understood as part of Wright’s fervent construction of his legacy in the last third of his career.\footnote{In The Living City, for example, Wright’s numerous illustrations are undated, making it nearly impossible for an uninformed reader to differentiate between Broadacre City’s various iterations. Wright intermixed his early 1930s projects, like the Wayside Market, House on the Mesa, and the Broadacre City Highway Overpass with an extremely futuristic “Typical View of Broadacres Countryside” filled with flying spaceships, and a “Motor Hotel” made up of round, Dymaxion House-like structures.} These texts, as well as the exhaustive series of letters to fellow architects and clients, reflect a boundless thirst for recognition, an endless attempt to shape a theory of urbanism that in the early 1930s was complicated and often paradoxical. In the years since, there has been an unfortunate lack of consideration given to Wright’s close observation of contemporary urban problems and interactions within the field of city planning that has led to rampant oversimplification in the historical analysis of his work in this arena. This chapter has tried to expand the scholarly reading of Wright’s urbanism beyond the typical tropes that have come to
dominate his bibliography. In addition to the wide-ranging influence of Progressive social and economic theories, historians should more fully consider the impact of Wright’s involvement in the transatlantic urban planning debates of the 1910s and 1920s, and of his awareness of contemporary visionary proposals for high-speed infrastructure, on Broadacre City in 1935. These factors reveal the project’s embrace of the high-speed, high-technology future as a solution to America’s growth, rather different from Wright’s somewhat self-serving portrayal of it as a representation of the individualist, romantic, tradition of Jeffersonian America.
CONCLUSION

To a far greater degree than other proposals for America’s urban congestion problems developed in the 1920s and 1930s, Saarinen’s Chicago and Detroit plans, Neutra’s Rush City, and Wright’s Broadacre City found in earlier traditions of visionary urbanism on both sides of the Atlantic useful ideas for urban extension, a positive view of technology, and unlimited growth. Chapter 1 and Chapter 2 described the myriad debates and public competitions taking place in German, Austrian, and American cities that likely informed their attitudes towards urbanism. The Competition for Greater Berlin, Otto Wagner’s *Die Grossstadt*, and Werner Hegemann’s exhibition on city planning played a significant role in internationalizing the concept of infrastructure planning on a metropolitan scale, while the lakefront development and traffic congestion in Chicago and the housing boom in suburban Los Angeles continued throughout the 1920s, leaving wide berth for the hugely ambitious proposals examined here.

Saarinen’s plans for civic centers in Chicago and Detroit were continuations of his long career in international planning, yet departed from those earlier successes in their emphasis on the automobile as the key mode of transportation. Saarinen included massively over-scaled parking garages and high-speed freeways that allowed for efficient movement between downtown and outlying areas, and used monumental, Tribune Tower-like buildings to structure the program visually. Neutra’s Rush City rejected the historicism of Saarinen’s designs, using instead the streamlined, simplified aesthetic of European modernism to create a futuristic cityscape filled with high-tech multi-functional transportation hubs and landscaped roads lined with glass towers. Wright’s Broadacre City was perhaps the most fantastical, with its wholly new urban structure and political system organized around the unit of the county and strung along similarly linear highways.
Several elements unite the plans. All included a wide variety of building types, many of which were culled from the architects’ previous work, ranging from hotels and town halls in Saarinen’s designs, schools and airports in Neutra’s, and a variety of home types and the automobile objective in Wright’s. All of the plans contained innovative, multi-layered transportation systems that combined automobile travel with railways and airports. Finally, as described throughout this dissertation, the three architects conceived of their plans within a larger program of visionary urbanism, and spent a good deal of time and energy publicizing their programs within the fields of modern architecture and planning. The array of work is astounding, and has until now rarely been examined all together. Saarinen continued to tinker with his Detroit plan for the next two decades, and contributed to postwar redevelopment plans for the city that were at least in part rooted in his first plan of 1924. Neutra designed drive-in markets and bus prototypes, and with colleagues, also developed several larger-scale urban plans throughout the remainder of his career. Wright’s Broadacre City was similarly a singular expression of a far lengthier engagement with city planning that dated to the mid-1920s in his Steel Cathedral and skyscraper designs, among many other examples. He would further adapt Broadacre City in 1945 and 1958, reflecting his belief in the plan’s relevance to the post-World War II era.

Briefly examining this postwar context, and especially the contrasting theories of urbanism set up by Robert Moses and Jane Jacobs will provide further evidence of the foresight embedded within Saarinen’s, Neutra’s, and Wright’s 1920s and 1930s plans, even as those plans acted more as generators for design ideas or pedagogical exercises than as functional models for future development. Although working from a very different perspective, Robert Moses’ enormously scaled highway projects for New York that were implemented in full force
beginning in the mid-1930s, and Jane Jacobs’ rejection of them in 1961, had a significant impact on how the futuristic planning of the interwar period was perceived by later critics.

Moses rose to power in the 1920s and 1930s as the head of the Long Island State Parks Commission, and later became the city’s “Construction Coordinator.” In both of those roles, he eventually garnered enough political capital to push through myriad projects for bridges, expressways, and public housing over the subsequent decades, often with little regard to the existing cityscape or the residents who lived there (Figures 115 and 116).\(^1\) By the early 1960s, Moses’ heavy-handed interventions to the fabric of New York City became fodder for critics like Jane Jacobs, who proposed an entirely different model for successful urbanism. Jacobs promoted a smaller-scale, mixed-use cityscape, with short blocks and relatively high density that would encourage a vibrant community life that she saw lacking in Moses’ highways or housing blocks isolated within vast green spaces with no connection to the street (Figure 117). In the introduction to her 1961 book *The Death and Life of Great American Cities*, Jacobs wrote that rather than performing close observations of real urban conditions, and thinking of cities as laboratories for experimentation, urban planners like Moses and others were “guided instead by principles derived from the behavior and appearance of towns, suburbs, tuberculosis sanatoria, fairs, and imaginary dream cities – from anything but cities themselves.”\(^2\) The obsession with solving automobile traffic problems as the solution to the city’s problems was beside the point, she argued: “Cities have much more intricate economic and social concerns than [just] automobile traffic. How can you know what to try with traffic until you know how the city itself


works, and what else it needs to do with its streets? You can’t.”

Without naming names, Jacobs seems to have been specifically referencing the traffic plans suggested by Moses.

Jacobs also commented on American city planning as a field, and on her understanding of contemporary planning as having emerged directly from earlier twentieth century examples. She referred to it as a “pseudoscience,” one that had not yet broken with “the specious comfort of wishes, familiar superstitions, oversimplifications, and symbols” to study the real world. Jacobs pointed especially to the traces of garden city planning, the “Decentrist” attitudes of Clarence Stein, Lewis Mumford, and the RPAA, and the “Radiant City” towers of Le Corbusier evident in contemporary urban renewal projects. To Jacobs, these elements destroyed the daily social interactions that were critical to a functioning city. Filtered through the lens of the City Beautiful, Jacobs believed the resulting “Radiant Garden City Beautiful” style contributed to the negative urban effects of single-function spaces like Lincoln Center in Manhattan (Figure 118).

Mumford’s own view of urbanism shifted significantly in the post-World War II period. In 1962, he described Wright’s Broadacres as an “anti-city” that tried to “break down the most fundamental [of] organic limitations: the functional limits of growth.” In being too focused on infinite expansion in a linear fashion, Broadacres failed to incorporate natural variety in scale and architectural structure of communities, and “without a nucleus, aided by many sub-nuclei, urban life lacks organs for mixing, meeting, mobilization.” Despite his earlier preference for decentralized planning, by the early 1960s, Mumford favored a different kind of regional framework that would incorporate cities of various sizes into a larger unit.

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3 Ibid., 7.
4 Ibid., 13.
5 Ibid., 17-23. See Caro, The Power Broker, 1013-1014 for an account of the development of Lincoln Center, and the tenant and business relocation required for the projects implementation.
7 Ibid., 107.
As shown in the preceding chapters, Saarinen’s, Neutra’s, and Wright’s visionary plans, though often seen as precursors to or predictions of post-World War II urban decay, actually stood to varying degrees in opposition to the projects designed by Le Corbusier or the RPAA planners. Despite their focus on automobile transportation that would seem to have limited the kind of interactions promoted by Jacobs, none of the plans rejected the pedestrian out of hand, and often incorporated separate walkways. In the case of Saarinen, his plans for Chicago and Detroit were oriented around large underground parking garages, stores and restaurants, and mixed-use public plazas that presumably would involve plenty of social experiences along the lakeshore or riverfront in both cities. Neutra’s transportation hubs served the same function in Rush City, while Wright incorporated a wide variety of building types and recreational sites in Broadacres that were intended to support a rich community life not entirely unlike Jacobs’ Greenwich Village block.

In many ways, the visionary plans studied in this dissertation should be seen within their own very specific interwar context, and not interrogated for their usefulness as models going forward. Although all three sets of plans turned out to have been fairly prescient in their projections of population expansion, automobile usage and the dispersion of development along linear highways, they simultaneously contained major flaws in their faith in automobile transportation to serve as the primary organizing factor in the future city. The isolation of car travel, its resulting increases in traffic congestion, and its economic and environmental effects could not have been readily apparent during the early phase of the car’s popularization. This was a period in which the car seemed like a dream-like answer to both the clogged arteries of older American cities and to the extraordinarily quick development of newer ones like Los Angeles. Despite their naïveté to the car’s full impact, the plans nevertheless serve as a fascinating

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8 With regard to Broadacre City, see ibid., 101.
window into the period in which they were produced. The plans for Chicago and Detroit, Rush City, and Broadacres reflect, with varying degrees of optimism, the technological progressivism manifested throughout American culture during the machine age, and prove that early “car culture” emerged within this same framework.9

Finally, the plans describe a mode of visionary urbanism rather different from that proposed in New York City. As discussed throughout this dissertation, the radical changes to the urban landscape of Chicago and Los Angeles, and the public debates and myriad proposals related to those changes, made those cities especially potent sites for experimentation. Indeed, Saarinen, Neutra and Wright’s designs in the 1920s and 1930s were highly attuned to the need for efficient long-term metropolitan expansion expressed in both places. All three architects developed plans that would account for new population growth patterns while maintaining a comprehensible civic identity. Taking on Otto Wagner’s interest in architectural uniformity and high-speed transportation, the visionary plans for American cities used technologically advanced infrastructure and relatively cohesive architectural styles to connect the dispersed city together.

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