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Ward et al, The Landscape of Modernity NYC 1900-1940

The Regional Plan and the Transformation of the Industrial Metropolis

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In ten weighty volumes of maps, surveys, statistics, detailed architectural drawings, and earnest prose, the Regional Plan of New York and its Environs (1929–1931) presented itself to the world as the sober product of practical economics, rigorous social science, and disciplined planning theory.[1] Funded by more than a million 1920s dollars from the Russell Sage Foundation, the plan remains the most thorough and ambitious single project in the history of American planning. Yet, at the heart of this massive effort was a vision of an ideal twentieth century metropolis that was as much an "urban utopia" as the contemporary plans of Frank Lloyd Wright and Le Corbusier.[2]

The future that the plan proposed for the New York region in the years from 1929 to 1965 was summed up in the word "recentralization." In the 1960s as in the 1920s, Manhattan would remain the region's vital center. Easily accessible by an upgraded and expanded mass transit system from even the remotest corners of the "environs," Manhattan's centrality as the nation's financial, corporate, and cultural capital would be enhanced by purging the island of its slums, industrial sites, and other "inappropriate uses." The ground thus gained would be used for art deco towers and luxury apartment blocks. Manhattan would be rebuilt as the world's ultimate "downtown."

At the same time, the planners were convinced that the New York region's economic well-being rested ultimately on maintaining its status as the nation's premier industrial region. As Thomas Adams, general director of the plan, expressed it:

> The leading forces that create great cities have been seen to be their industries and means of communication. The efficiency of industry and of the transportation that ministers to it, lies at the root of prosperity in the city. All else is secondary from an economic point of view.[3]

In eight wonderfully detailed volumes of the *Regional Survey*, the planners studied specific industries and their needs. They concluded that the region's industrial health could be sustained only by a massive and coordinated effort to improve the infrastructure in what was termed the "industrial zone," that is, the outer boroughs and New Jersey within a twenty-mile radius of lower Manhattan.

In precisely those industrial/working-class areas that would in fact by 1965 become tragic loci of decay and deindustrialization, the plan called for massive investments in new rail and mass transit lines, highways, and shipping piers. The industrial zone would thus enjoy the most efficient and best-coordinated rail and shipping network in the world, a network specifically adapted to the needs of small manufacturers that the plan regarded as the key to the region's prosperity. Manufacturing would be encouraged to relocate to the industrial zone from congested areas in Manhattan—in 1922, as the planners learned, more than 420,000 workers were still employed in factories located in Manhattan south of Fifty-ninth Street[4]—and in these new locations industry would be freed from Manhattan's congestion while enjoying even better access to the region's wealth of labor and markets. The plan thus envisioned the gentrification of Manhattan and the reindustrialization of the region as a single coordinated project.

Population in the twenty-two counties in three states, which the plan defined as "New York and its environs," was predicted to double from 10 million people in 1929 to 21 million in 1965. (In fact the region's population in 1965 was 17.4 million.) Nevertheless, sprawl would be discouraged by mass transit facilities that would keep not only workers' housing but also most middle-class housing within the core and industrial zone. Beyond the twenty-mile radius of the industrial zone, land not previously developed was mostly reserved for agriculture, private estates, or recreational facilities. Even after population had exceeded 20 million, three-quarters of the region's 5,500 square miles would be preserved as undeveloped farm or park land.[5]

The Regional Plan was the last embodiment of a specter that had been haunting American reformers since the 1890s: the progressive city. The plan's most profound influence was its detailed embodiment of a metropolitan landscape where, in Walter Lippmann's terminology,

Figure 5.1 The Three Zones. *Source:* The Regional Survey, vol. 1, "Major Economic Factors."

"mastery" had replaced "drift." By uniting the region's technical, financial, and philanthropic elite around a set of detailed proposals, the plan would constitute the equivalent of a regional government. The plan was thus addressed to those who had taken up Lippmann's challenge to transcend localism and to devise "administrative methods whereby the great resources of the country can be operated by some thought-out plan."[6]

Indeed, so many of the plan's proposals were later built by Robert Moses or by the Port Authority that some scholars have suggested that

these titans were in fact merely carrying out the plan's purposes. In this view the plan and its backers constituted New York's original "growth coalition" that has guided the region's development since the 1920s.[7] This interpretation, however, overlooks the fundamental divergence between the plan's overall program for the region (especially its careful balance between rail and auto transportation) and the aims of those who selectively adopted some of its recommendations in a very different context.

For example, the Regional Plan Association (the successor group to the Committee on the Regional Plan) has recently taken credit for its 1920s advocacy of a Narrows crossing between Staten Island and Brooklyn, a crossing that was finally achieved in 1964 by Robert Moses' Triborough Bridge Authority and the Port Authority as the Verrazano-Narrows Bridge. But the plan's original proposal was for a freight-rail subway tunnel that would be a key link in an ambitious program to revitalize both rail and mass transit in the region.[8] The Verrazano-Narrows Bridge, when built, served automobile and truck traffic only, and facilities for a subway link were carefully and consciously excluded.[9]

This points to a fundamental paradox in the plan's influence. The "landscape of modernity" that the plan proposed was still organized around a vision of a tightly centralized industrial metropolis based on rail transportation. Nevertheless, the specific proposals that were actually implemented were almost all highway projects, usually magnified in scale and purged of their rail and mass transit components. This selective implementation promoted an automobile-based suburbanization, and helped to create the conditions for the neglect and abandonment of the "industrial zone."

In the 1920s, the plan had indeed united a remarkably broad coalition of business leaders, politicians, and philanthropists around a detailed program for New York's future as a rail-based centralized industrial metropolis. Such people are usually regarded as powerful. Why then did the region develop along quite different lines, and what does this tell us about the real forces that created New York's "landscape of modernity"?

Like every vision that looks to the future, the Regional Plan had its roots firmly planted in the conditions and concerns of the recent past. It can trace its lineage back directly to the *locus classicus* of progressive city planning: Daniel H. Burnham and his protégé Edward H. Bennett's "Plan of Chicago" (1909).[10] Charles Dyer Norton, the inspiration and driving force behind the New York plan, had begun his business career in Chicago. As president first of the Merchant's Club and then the Commercial Club of Chicago, he had been instrumental in persuading Burnham to undertake the project and had also been invaluable in raising money to finance it through contributions from the city's business elite. Although the New York plan eventually "out-Burnhamed Burnham" in its scale and ambition, the Chicago plan set the ideological parameters within which the New Yorkers later functioned.[11]

Burnham understood that the modern centralized city required massive coordination to achieve an efficient infrastructure and to create the boulevards and the great urban monuments he believed a great metropolis required. With Haussmann's Paris as his inspiration, Burnham in effect posed the question: How to achieve a Haussmann-like control over the great city and its hinterland without a prefect of Chicago? And without an authoritarian state to back up the prefect?

Burnham's answer was to create, outside of all political or corporate frameworks, a comprehensive plan that would spell out all the necessary forms of coordination and investment for the region. This plan would then gain the general support of the urban business elite. Through them it would be publicized and praised in newspapers; its images would become familiar to citizens; it would even be taught in the schools. A general consensus, achieved outside the usual political channels, would mold the actions both of elected politicians and of corporate leaders. In this way the design would set the agenda for massive, harmonious rebuilding. The plan itself would be the substitute for the absent prefect. This, for Burnham, was "Democracy."[12]

Charles Dyer Norton brought Burnham's vision to New York when, after service in the Taft administration, Norton was called to Wall Street in 1911 to be vice-president (and later president) of the First National City Bank. In early 1914, reform Mayor John Purroy Mitchel appointed Norton a member of the "Advisory Committee on City Plan," formed to continue the work of the Heights of Buildings Commission, whose 1913 recommendations would result in the pioneering zoning resolution of 1916. The Heights of Buildings Commission had concluded that specific problems raised by influential business groups—most notably the Fifth Avenue merchants' complaints about the "invasion" of their elite shopping street by garment workers' lofts—could be solved only by citywide zoning districts and a citywide plan. Norton, in Burnham's spirit, came to see that even the best New York City zoning plan could not deal adequately with issues of population and industrial distribution that necessarily touched the whole region.[13]

As an outsider to the complex mosaic of New York politics, Norton turned instinctively to a Burnham-style regional plan that would tran-

scend all local political boundaries, address fundamental concerns of urban form, and set the agenda for reordering the world's largest and richest metropolitan region.

> From City Hall a circle must be swung which will include the Atlantic Highlands and Princeton; the lovely Jersey Hills back of Morristown and Tuxedo; the incomparable Hudson as far as Newburgh; the Westchester lakes and ridges, to Bridgeport and beyond, and all of Long Island.[14]

He concluded, "Let some Daniel H. Burnham do for this immense community what Burnham did for Chicago and its environs. . . ."[15] But, as Norton soon realized, the New York elite was far too fragmented for there to be an equivalent of the Commercial Club of Chicago, and the planning itself was already too professionalized for there to be the equivalent of a Daniel Burnham.[16] Norton turned from business clubs to prestigious foundations as a source of funding, and began to assemble an authoritative team of experts to substitute for the authority of a charismatic individual. The Russell Sage Foundation, already known for underwriting the Pittsburgh social survey (1907) and for building the model community of Forest Hills Gardens in Queens (1911), agreed in 1921 to fund the project.[17]

After Norton died in 1923, his position as chairman was filled by his old Chicago colleague Frederic Delano, a consulting engineer, Federal Reserve Board commissioner, and former railway executive. A team of social scientists under the direction of Columbia economist Robert Haig was ready to begin an elaborate social and economic survey of the New York region on which the plan was to be based. Meanwhile, a distinguished group of planners, which included Harlan Bartholomew, Edward H. Bennett, George B. Ford, John Nolen, and Frederick Law Olmsted, Jr., was already formulating proposals for various parts of the region. Overall coordination was in the hands of Thomas Adams, once an enthusiastic disciple of Ebenezer Howard and the Garden City movement and now a bland proponent of "practical," business-oriented planning.[18]

The plan began from the same problem which had concerned the members of the "Advisory Committee on City Plan": how to free Manhattan from "inappropriate" industrial uses, while retaining for the region the vitality of Manhattan's industrial base. As the plan's economists soon realized, New York's prosperity depended not on large mass-production industries or on corporate or financial employers but on the multitude of small businesses who derived unique advantages from the very congestion of the region:

> . . . the area is the paradise of the small manufacturer. The average number of employees per factory in the United States is 43, here it is a little over two-thirds of that number. In many lines of industry a small firm may conduct a national business without the owner traveling more than a few blocks in any direction. Supplies, related industries, financing, space in lofts or old buildings, labor at the door, styles or ideas, all in the very locality, and buyers who come regularly from all over the country at not distant hotels, all make it possible for the small fellow to exist.[19]

These small manufacturers, however, were forced to pay high rents for cramped space in congested streets in the older manufacturing districts or move to the outskirts where access to wholesale markets, transportation, and labor was slow and uncertain. Under these circumstances many manufacturers were tempted to leave the region entirely.

The Regional Plan's answer to this dilemma was termed, in one of Thomas Adams' characteristically woolly phrases, "diffused recentralization."[20] This meant a coordinated effort to "diffuse" manufacturing out of Manhattan and then to recentralize it in specially planned districts in Brooklyn, Queens, the Bronx, and New Jersey. Although these districts would be miles rather than blocks away from Manhattan's wholesale markets, the rail links to Manhattan would be so efficient that little convenience would be lost. Moreover, the new districts would have room for expansion, and far better freight connections to national and world markets. With improved mass transit, employees from throughout the region could reach their jobs more quickly than before.

The key to this scheme was rail transportation. The plan was fortunate to find a visionary engineer whose ideas exactly met their needs. This was William J. Wilgus, best known as the engineer who created the city's masterpiece of railroad engineering, the Grand Central Terminal.[21] Wilgus possessed not only the progressive zeal for order and efficiency, but also a superb technical understanding of how a coordinated system of electrically driven rail transportation could unify a vast centralized region. The same imagination he applied to creating the intricate multilayered structure of Grand Central he now applied on a regional scale. If the plan represents an alternative future for New York, then William Wilgus was surely its alternative Robert Moses.

As early as 1908 Wilgus had begun to concern himself with the rationalizing of the region's freight network. The great port which had given birth to the city was now proving to be an even greater barrier to the region's communications. Almost all freight entering or leaving the region had to be unloaded at least once at chaotic docks, put aboard car ferries or lighters, floated across the congested waters of the harbor and then unloaded again at one of the terminals of the twelve trunk-line railroads that served the region. The terminals on the New Jersey side of the Hudson were a nightmare of chaos, congestion, and delay; those on the Manhattan side were worse. During World War I, the system virtually collapsed, crippling the whole American war effort.

The particular genius of Wilgus' plan was to transform a seemingly intractable situation into so logical and well-organized a transportation system that it not only solved the problems of freight congestion but also gave tremendous advantages to manufacturing within the region. Wilgus proposed two concentric rail beltways around the region. An "Outer Belt Line" would cut congestion by enabling freight bound for outside the region to bypass the core; a complex "Inner Belt Line" requiring new bridges and tunnels would carry rail freight efficiently around the heart of the region without the need for cross-harbor flotations. The inner loop, moreover, would be operated cooperatively by all the railroads that would direct freight along the most cost-effective routes, not the ones that gave them the maximum profit. As a good progressive, Wilgus believed that a more efficient and rational system would serve the best interests of both the railroads and the region as a whole.[22]

In the Regional Plan the "industrial zone" is defined by the inner belt line, especially by those areas where rail transportation could be coordinated with piers for ocean-going shipping. The zone includes both manufacturing sites and separate-but-adjacent residential districts, because the planners assumed that most working-class and lower-middle-class families would continue to live in relatively high densities close to their work. The plan envisioned small manufacturers clustering in the Bronx, Queens, and Brooklyn. Large-scale industry would favor New Jersey with its more direct access to the rest of the country. The plan proposed a grandiose "industrial city" for the Hackensack Meadowlands which would combine expansive sites for large plants with all the advantages of a site only five miles from midtown Manhattan.[23]

Wilgus, moreover, did not neglect rapid transit for people. Once again he cut through the welter of competing private companies and public authorities by advocating a single public authority to operate all rapid transit in the region. Operations would be financed not only by fares but also by property taxes and general tax revenues. Commuter trains and subways would share the new facilities of the inner

Figure 5.2 The Wilgus Plan for Rail Beltways. Source: The Regional Survey, vol. 4, "Transit and Transportation."

and outer belts, and new branch lines would be built to handle the region's expanding population. The system would not only being workers to their jobs in the industrial zone but would also vastly improve service into Manhattan.

Such improvements would be vitally necessary, for the plan foresaw Manhattan not only retaining but augmenting as well its cultural and commercial dominance over the rest of the region. The plan was conceived when Manhattan was at its peak as the office, shopping, entertainment, and even manufacturing center for the region. A survey taken in 1924 found that 2.2 million people entered Manhattan on a typical business day—23 percent of the population of the whole region. When, on such a typical day, one combined those residing in Manhattan south of Fifty-ninth Street with those who worked or visited there, the total came to 2.9 million people, or 30 percent of the region's total population.[24] These staggering numbers included points of especially intense congestion, such as the 175,000 people who worked in the garment center,[25] or the 44 legitimate theaters with 56,000 seats located within a 1,000-foot radius of the corner of Broadway and Forty-second Street.[26]

Far from challenging this degree of concentration, the plan argued that such numbers would at least double by 1965 as the population of the region doubled. They believed that office and other service employment would more than compensate for lost manufacturing jobs, and they tried to ensure that Manhattan would maintain its supremacy as the retailing and entertainment center for the region. By 1965, they predicted, 4.5 million people would enter Manhattan each business day and 7 million residents, commuters, and visitors would be found each workday between the Battery and Fifty-ninth Street.[27]

Wilgus' mass transit system was specifically designed to handle such unprecedented crowds. Commuter trains or subways would travel on all the new links of the inner and outer belt lines as well as on many other new branch lines. For example, the rail tunnel from Hoboken to Fifty-ninth Street in Manhattan would also carry commuters to a new passenger terminal on Fifty-ninth Street. Within Manhattan, the elevated lines would be replaced by new subway lines, and these lines would carry not only subway traffic but also suburban trains to deliver commuters as close as possible to their destinations.[28]

To save Manhattan from self-suffocation, the planners argued that skyscrapers should not be allowed to cluster together as they had in the financial district or midtown, but must be spaced out at regular intervals to prevent crowds from overwhelming the facilities at any given point. More imaginatively, they proposed to separate pedestrians and shops from street traffic by a network of second-story arcades—skyways, in current terminology. While pedestrians moved unimpeded above, crosstown streets would tunnel under north-south avenues, permitting a continuous traffic flow. Taxis or trucks wishing to unload would pull into parking areas under the arcades, allowing traffic to flow unimpeded.[29] Meanwhile, as the garment lofts, the kosher slaughter houses, and other "inappropriate" uses left the island to be replaced by financial and corporate services, Manhattan would emerge as the world's ultimate downtown, a region of modern office towers and luxury apartments for the elite, and a mecca of shopping and entertainment to draw the masses from around the region.

In contrast to these massive development plans for both the core and the inner industrial zone, the planners were most concerned in the outer zone to maintain the quiet and open space that was already there. The plan was deeply hostile to any "mass suburbanization" that might have lured the working and lower middle classes from their "natural" position in the industrial zone. The plan's section on housing is filled with accounts of failed "premature" subdivisions that attempted that strategy. The planners were especially concerned about subdivisions that "invaded" territory they had reserved for upper-class estates. Thomas Adams distinguished sharply between "the erection of houses for well-to-do people on plots of an acre or more"—this he regarded as "a most desirable form of development"—and "the subdivision of country estates into small lots for the erection of small houses. . . ." The latter was "unwholesome and uneconomic" because it led to "wasteful and disorderly spreading of houses, [which] is one of the primary causes of the worst evils of city growth."[30] Thus, each of the three zones in the plan would retain its distinct identity: the still rural quiet of the outer zone; the productive bustle of the inner industrial zone; and, in the core, a sleek art deco wonderland.

We must now resist the temptation to linger further on the details of the plan and attempt instead to deal with its fate—that is, with the powers that really determined the future of the region. Although the plan certainly called for large expenditures, one cannot doubt its practicality on those grounds alone. By 1965 the region had expended far greater sums on other goals. Nor could the planners be accused of harboring impractical social goals. Indeed, they were so close to the views of business leaders that Lewis Mumford could charge that the plan was

> conceived first of all in terms which would meet the interests and prejudices of the existing financial rulers: indeed . . . its aim, from the beginning, was as much human welfare and amenity as could be

Figure 5.3 The Sleek Art Deco Wonderland: The Proposed Chrystie-Forsyth Parkway for a Rebuilt Lower East Side. Source: Regional Plan, vol. 2, "Building the City."

obtained without altering any of the political and business institutions which have made the city precisely what it is.[31]

Mumford was certainly right that the makers of the plan were more than willing to allow an elite consensus to substitute for democratic decision making. But he and the makers of the Regional Plan were both mistaken to believe that any such consensus existed. Ironically, the crucial opposition to the plan would come not from parochial political bosses or "the masses" but from among the "financial rulers" who refused to play their part in the civic harmony the plan proposed. As we shall see, the railroads had perhaps the most to gain in the long run from implementation of the plan, yet they used their veto powers to block its progress. At the same time, other "financial rulers" deeply involved in suburban land speculation and home financing sought to profit from developments that profoundly altered "the political and business institutions which have made the city precisely what it is."

The plan's reception revealed the limitations of "the Burnham Method" for controlling regional development, and with it the weaknesses in progressive thought of the late 1920s. Its proponents saw so clearly the vital need for order and coordination, but their reliance on elite consensus and the authority of social science left them with no real power to discipline those organizations who through greed or inertia were "out of control." There is an element of pathos in Wilgus' declaration that

> In some way the diverse elements in our midst, comprising as they do twelve trunk lines, three major and several minor traction systems, a variety of trucking interests, many water carriers, four hundred organized communities, three states and the nation, must be brought into harmony for the common purpose. Self-preservation demands it.[32]

The inability of the Regional Plan to pursue "the common purpose" was mirrored at the national level where Herbert Hoover's hopes to harmonize the national economy through the voluntary actions of trade associations would lead to a far worse case of disorder. The future lay with those more willing and able to grasp directly the levers of state power.[33]

The real test of the Regional Plan came in the attempts to implement the restructuring of the rail network. Not only was this restructuring a necessity if recentralization were to succeed, but success would provide a vital example of regional cooperation. Despite the difficulty of the task, the planners were in a strong position because their efforts were being advanced by an agency that not only shared the plan's progressive agenda but also possessed real governmental powers, the Port of New York Authority.[34] Unfortunately, a plan for railroad reorganization required the cooperation of the region's railroads. The twelve trunk-line railroads achieved a rare level of agreement through their concerted refusal to cooperate with the Port Authority. Their opposition effectively vetoed not only the inner loop but also the whole revitalization of transportation for the inner zone that Wilgus and the Regional Plan sought. As Wilgus had feared, the habits of competition through exclusive use of terminal facilities outweighed for the railroads all the benefits of a rational plan.[35]

Unable to overcome the railroads' opposition, the Port Authority in the mid-1920s made a crucial decision to abandon its initial rail orientation and to concentrate on providing bridges and tunnels for automobiles. The Port Authority's projects, moreover, were only one part of an uncoordinated but ultimately revolutionary program of road and bridge building undertaken by the highway departments of the three states and by other special authorities, most notably Robert Moses' Triborough Bridge Authority. The result was a massive tilt toward the automobile and the truck in the regional transportation system.

Ironically, one source for major highway projects was the Regional Plan itself, which had undertaken as part of its work to identify major traffic bottlenecks and to compile proposals for new roads for the region. Perhaps most importantly, the plan through its "Graphic Survey" maps propagated the ideal of a coordinated, comprehensive regional highway network. Nevertheless, this highway network was always intended to be subordinate to a centralized rail system that would continue to define the region. The plan's highway emphasis fell on creating a "metropolitan loop highway" that would for most of its length run adjacent to Wilgus' rail loop, a telling indication that the planners still saw highways as subordinate to rails. Many roads later built as superhighways appear on the plan's maps as boulevards or as joint highway/rail facilities. For example, the plan advocated the 178th Street (George Washington) Bridge both as a highway connection and—on a separate rail deck—as a link in the inner rail belt to carry both passengers and freight.[36]

The authors of the plan saw only dimly the impetus that the automobile would give toward decentralization. We can now perceive clearly that whereas rail systems favor locations close to the regional hub where rail lines converge—that is, the plan's industrial zone—highways turn previously inconvenient areas in the "outlying region" into better sites than the congested core. As the case of New York illustrates, this fateful shift from rail to highway was not a case of

Figure 5.4 Proposal for Regional Highway Routes. Source: The Regional Plan, vol. 1, "The Graphic Regional Plan."

an outmoded technology being replaced by a more efficient, modern technology. Wilgus' plan demonstrates that rail technology had potential at least as great as the innovations that created the superhighways.

The great strength of the highway system was that where the rail system was controlled by private corporations whose structure and ethos were inherited from the nineteenth century, roads were constructed under newly organized public or quasi-public authorities. The former could draw directly on the public purse; the latter could act

entrepreneurially to combine public funds with private loans. Under a buccaneer like Robert Moses or a powerful bureaucracy like the Port Authority, the quasi-public agency secured virtual freedom from public control. Highway technology was thus pushed to its limits, while the possibilities for rail transportation remained unfulfilled.

The great weakness of the rail system was its bondage to increasingly sclerotic organizations that felt neither the necessity nor the promise of breaking ingrained patterns of competitive behavior to act cooperatively. They and the public mass transit agencies were incapable of the level of urbanistic thinking displayed in the Wilgus plan. Ironically, the harmony that Wilgus sought was finally found only in the "grave" of a universal bankruptcy that saw all of the region's freight railroads merged into Conrail in the 1970s. By then the inner industrial zone was in ruins. Thus, the railroads slowly strangled the centralized industrial metropolis as unconsciously as they had created it.

If the failure of the rail network was the Regional Plan's first great miscalculation, the second was surely the plan's belief that most residents would be content to live in high-density neighborhoods close to their work. The planners' class bias is evident here, but so is their misunderstanding of the economics of suburbanization. Despite their elaborate surveys, they completely failed to appreciate the depth and breadth of the appeal of the single family suburban house. More importantly, they failed to understand the powerful forces that had assembled to make this aspiration a reality.

The twenties, the decade of the Regional Plan, also saw a crucial shift in the resources of large financial institutions toward home mortgages. As industrial corporations began to finance their own operations through retained earnings, the banking system sought new customers for its funds among lot and home purchasers. The suburban developer functioned as a kind of middleman for the banks, arranging for mortgages for his customers which he immediately sold at a discount to large institutions. These mortgages were still the short-term balloon mortgages or high-interest second mortgages whose inadequacy led directly to disaster during the Great Depression. Nevertheless, the twenties opened that crucial pipeline between "the financial rulers" and the individual homebuyer that would fuel the suburban housing revolution.[37]

The collapse of the homebuilding industry in the 1930s offered a brief, tantalizing hope that the future might match the Regional Plan. As Gail Radford has shown, housing reformers within the New Deal sought to direct capital away from suburban housing and the private mortgage market toward nonprofit or limited-profit corporations that would build cooperative rental housing either in blighted areas within the cities or in New Towns safely beyond them.[38] Such a shift would have favored the goals of the Regional Plan; indeed, the plan published in 1933 a slim volume on *The Rebuilding of Blighted Areas* with detailed plans for extensive new construction throughout the industrial zone.[39] Despite these hopes, the New Deal followed its usual course of propping up and rationalizing the failed structures of the 1920s. The National Housing Act of 1934 set up the Federal Housing Administration and a network of savings-and-loan institutions that could draw mortgage money both from small savers and from large institutions. A far more reliable pipeline was now in place to advance the building of suburban homes and the decentralization of the urban population.[40]

In this context, we can now appreciate the irony of the famous controversy in 1932 between Lewis Mumford and Thomas Adams over the Regional Plan. Mumford charged that Adams and the plan had sold out to real estate interests by advocating high population densities (and thus high land values) in the core and industrial zone. But Mumford shared Adams' concern to limit the spread of the metropolis and to maintain the open character of the outer zone. For Mumford (following Raymond Unwin and Adams' old mentor Ebenezer Howard) the solution was first to establish a greenbelt around the built-up areas of the metropolis to stop suburban sprawl, and then to decongest the urban areas by moving people and industry to compact New Towns in the outer zone. These New Towns, for which a prototype existed at Radburn, New Jersey, would be carefully planned and distributed to maintain the area's rural character. In fact, the industrial zone would indeed be decongested, but by a method Mumford opposed as vehemently as Adams: the tide of "spread city" suburbanization that would eventually engulf not only Radburn but so much of the outer zone.[41]

The shift from rail to highway and the revitalization of suburban housing thus each contradicted the basic assumptions of the Regional Plan. Moreover, the two functioned together as strongly interacting forces that together gave momentum to decentralization. Firms were pushed out of the old industrial zone by congestion and deteriorating rail service at the same time that they were drawn to the periphery by cheap land for expansion, by better roads for trucking, and by a work force now itself moving to the suburbs. As more jobs moved, the market for suburban housing was strengthened. The dream of a dense, efficient, prosperous industrial zone as the heart of a recentralized region was lost.

In 1942, the Regional Plan Association published a short report ironically entitled *From Plan to Reality*.[42] Despite the title, this and other reports showed that whereas the region's population had grown 26 percent since 1925, its built-up areas had increased 56 percent. Twelve million people in 1940 occupied almost as large an area as the plan had forecast for a population of twenty-one million in 1965.[43] Moreover, one could see trouble ahead in significant population declines not only for Manhattan but also for such prime industrial zone locations as Jersey City and Newark. David Johnson, the Regional Plan's most thorough and sympathetic historian, concludes that by 1941 the plan was obsolete.[44] One might go further and argue that by 1941 the centralized industrial metropolis was itself obsolete.

Notes

1. For bibliographical details of the *Regional Plan* and *Regional Survey*, see the general bibliography at the back of this volume.
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3. *Regional Survey*, 6:131.
4. *Regional Survey*, 1:10.
5. *Regional Plan*, 1:317. For figures on the region's population, see David A. Johnson, *The Emergence of Metropolitan Regionalism: An Analysis of the Regional Plan of New York and Its Environs*, Ph.D. diss. (Graduate Field of City and Regional Planning, Cornell University, 1974), p. 236.
6. Walter Lippmann, *Drift and Mastery: An Attempt to Diagnose the Current Unrest*, (orig. ed. 1914), new edition with introduction and notes by William E. Leuchtenburg (Englewood Cliffs, NJ: Prentice-Hall, 1961), p. 85.
7. Michael Heiman, *The Quiet Evolution: Power, Planning and Profits in New York State* (New York: Praeger, 1988), and John H. Mollenkopf, *The Contested City* (Princeton, NJ: Princeton University Press, 1983), pp. 71–72.
8. For a discussion of the plan's proposal and the subsequent controversy, see Johnson, *Emergence of Metropolitan Regionalism*, pp. 396–419.
9. Michael N. Danielson and Jameson W. Doig, *New York: The Politics of Regional Development* (Berkeley: University of California Press, 1982), pp. 200–204.
10. Thomas S. Hines, *Burnham of Chicago: Architect and Planner* (New York: Oxford University Press, 1974), Chapter 14.
11. For a profound account of planning theory from Burnham through 1945, see M. Christine Boyer, *Dreaming the Rational City: The Myth of American City Planning* (Cambridge: MIT Press, 1983).
12. Daniel H. Burnham, "A City of the Future Under a Democratic Govern-

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13. Johnson, *Emergence of Metropolitan Regionalism*, pp. 113–121; for background on New York zoning, see Chapter 2 by Keith Revell and Chapter 3 by Marc Weiss in this volume.
14. Norton memorandum of November 27, 1915, quoted in Johnson, *Emergence of Metropolitan Regionalism*, p. 118.
15. Ibid.
16. For the fragmentation of the elite, see David C. Hammack, *Power and Society: Greater New York at the Turn of the Century* (New York: Russell Sage Foundation, 1982) and for the professionalization of planning, see Boyer, *Dreaming the Rational City*, Chapters 4 and 5.
17. Johnson, *Emergence of Metropolitan Regionalism*, pp. 121–141.
18. Ibid., Chapter 5. For Adams, see Michael Simpson, *Thomas Adams and the Modern Planning Movement: Britain, Canada, and the United States, 1900–1940* (London: Mansell, 1985).
19. *Regional Survey*, 4:188.
20. *Regional Plan*, 1:150.
21. For Wilgus, see especially Josef Konvitz, "William J. Wilgus and Engineering Projects to Improve the Port of New York," *Technology and Culture* 30 (1989): 398–425.
22. *Regional Survey*, 4:171–175. The Wilgus plan is similar in outline to the one advanced in the 1920s by the Port Authority, despite sharp differences over particulars, such as the Narrows Tunnel between Brooklyn and Staten Island that Wilgus supported and which the Port Authority vetoed. More research is necessary to determine who is the true originator of the concept.
23. *Regional Survey*, 4:150–157.
24. *Regional Survey*, 4:36–39.
25. *Regional Survey*, 1B:12.
26. *Regional Survey*, 4:55.
27. Ibid., p. 14.
28. Ibid., pp. 168–169.
29. *Regional Plan*, 2:413–416.
30. *The Graphic Regional Plan*, pp. 387–388.
31. Lewis Mumford, *New Republic* (1932), as reprinted in Carl Sussman, ed., *Planning the Fourth Migration: The Neglected Vision of the Regional Planning Association of America* (Cambridge: MIT Press, 1976), p. 255.
32. *Regional Survey*, 4:176.
33. For Hoover, see Ellis W. Hawley, "Herbert Hoover, the Commerce Secretariat, and the Vision of an 'Associative State,'" *Journal of American History* 61 (1974): 116–140. By contrast, see Mollenkopf, *Contested City*, for an important account of the impact of those who knew how to use the power of the state on the cities.
34. Jameson W. Doig has documented the Port Authority's role in the 1920s in Chapter 4 of this volume and in his "Entrepreneurship in Government: Historical Roots in the Progressive Era." Paper prepared for the Annual Meeting of the American Political Science Association, 1988.
35. Erwin W. Bard, *The Port of New York Authority* (New York: Columbia University Press, 1942), Chapters 1–6. I thank Jameson Doig for permitting me to see the relevant chapters in his forthcoming definitive history of the Port Authority, *Empire on the Hudson*, that will tell the complete story of the Port Authority and its "railroad plan."

36. *Regional Plan*, 1:200.
37. Leo Gebler et al., *Capital Formation in Residential Real Estate* (Princeton, NJ: Princeton University Press, 1956), Parts A and B.
38. Gail Radford, "Modern Community Housing: New Responses to the Shelter Problem in the 1920s and 1930s." Ph.D. diss. (Department of History, Columbia University, 1989).
39. Clarence Arthur Perry, *The Rebuilding of Blighted Areas* (New York: Regional Plan of New York and Its Environs, 1933).
40. Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (New York: Oxford, 1985), Chapter 11.
41. Both Mumford's polemic and Adams' response are reprinted in Sussman, *Planning the Fourth Migration*. For Radburn, see Daniel Schaffer, *Garden Cities for America: The Radburn Experience* (Philadelphia: Temple University Press, 1982).
42. Regional Plan Association, *From Plan to Reality: Three* (New York: Regional Plan Association, 1942).
43. Forbes B. Hays, *Community Leadership: The Regional Plan Association of New York* (New York: Columbia University Press, 1965), p. 88.
44. Johnson, *Emergence of Metropolitan Regionalism*, p. 508.