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Chapter 8

THE TRANSFORMATION
OF URBAN STRUCTURE
IN THE NINETEENTH CENTURY AND
THE BEGINNINGS OF SUBURBANIZATION

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Introduction

Theories of urban structure have too long been in the grip of neoclassical, Von Thünen models of the Alonso-Muth-Mills variety.¹ While these models recommend themselves on the strength of their apparent mathematical rigor, a closer look at first assumptions casts serious doubt on their explanatory power. This is not the place to enter into a systematic critique of neoclassical economics, but certain salient objections can be raised in order to point out what new directions need be taken.

Neoclassical location rent models involve essentially minor additions of new variables to the conventional neoclassical theoretic framework in order to simulate space. These additions have to be simple in order to allow the complex mathematical calculations of equilibrium solutions to be made.

A first objection can be raised concerning the treatment of space. Here space reduces to a linear distance between two points and to the cost of overcoming this distance. This conception of relative space, as Harvey has shown,² ignores the fundamental aspects of *absolute* space, where private property reigns in service of purposes such as procuring rents or defending one's home-as-castle; or *relational* space, which presupposes the rich relationships among people and land uses operating outside the market altogether. This leads, for one thing, to an extremely limited conception of urban rent, a problem which I have considered elsewhere.³ It also

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corresponds to the convenient assumption of a featureless plain and to perfect substitution of one location for another, a conception which ignores not only the variations of nature, but also the more important fact of an urban built environment. Space is void of the real clutter of buildings, and the model is relieved of the need to account for how they got there or how they are adapted to new uses.

But the problems go deeper than the conception of space. Conventional location models also begin from the standard consumer choice and production function paradigms of neoclassical economic theory. The first objection to this approach is that the two sides of urban life, production and consumption, exist in splendid isolation from one another. But more important is the way in which these processes are conceptualized in order to produce a model which "explains" the apparent centrality and declining gradient of the urban rent field. On the one hand, consumer choice theory assumes a world of individuals without social relations, loves, fears, conventions, and the like; they are, instead, a set of autonomous atoms with preexisting and fixed "tastes" for commodities. The origin of these tastes does not interest these theorists.⁴ People relate only to their commodities, and space is simply another commodity consumers invariably want more of. The result is an unquestioned assertion that people desire space *per se* and purchase more as they grow richer, *ceteris paribus*. The purpose of this rather strong assumption is, of course, to reproduce in theory the observable movement of richer people to the suburban fringe in contemporary American cities.

Production, on the other hand, is depicted essentially as an extension of exchange, rather than as an internally related, but fundamentally different and socially dominant, process as in Marxist theory.⁵ It consists of commodity relations instead of social relations, equality in place of class domination, and an infinite smoothness of substitution in place of the discontinuity of technical change.⁶ The picture of the city drawn on the basis of such a theory lacks any semblance of conflict or change emerging from the sphere of production.⁷

Furthermore, in order to reproduce the apparent centrality of cities, all production must be lumped by assumption into the central business district (CBD), or else it is said that a significant portion of the city's commodity flow must pass through the center in the process of exchange, whether for internal marketing or for export and import. The reasons for these assumptions are that either economies of agglomeration in production are realized at the center, or it is in the nature of transportation to concentrate the transfer of goods, owing to scale economies or transshipment costs. These are not unreasonable assumptions, but they leave certain questions unanswered: Under what circumstances are agglomeration economies really vital to production costs? Under what conditions of

production and consumption? How does transport play a role? How is it organized? And are cities in transition and circulation?

This brings up a number of models: their ahistorical assumptions have prevailed since the 1950s, and cross-cultural and historical patterns, such as the rural-urban divide, have simply not always been taken into account. And even if some of their models, the basic model of the change of the quality of life, are correct, at all in developing areas, the rural condition, whether in the West or the East, is likely to spring.

A small but growing literature exists to show that the nature of that shift and account for the changes in our understanding of the dimensions of urban form. It emerges to supplant the outcome of (1) increasing and (2) disembodied

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production and consumption, and with which modes of transportation, does transport play such a crucial role? Have cities always been centralized? And are cities in fact centralized for reasons of *commodity* production and circulation?

This brings up a final and most essential objection to the neoclassical models: their ahistorical nature. The same causal factors are assumed to have prevailed since the beginning of time and for all humanity. But cross-cultural and historical studies show clearly that present-day American patterns, such as the preference of the wealthy for the urban fringe, have simply not always existed nor do they hold for all modern forms of urbanism. And even if these theorists know full well the historical limits of their models, the latter provide no insight into the process of historical change of the qualitative, rather than quantitative, sort and thus help not at all in developing an understanding of how we came to our present urban condition, whether it need be as it is, and from what direction change is likely to spring.

A small but growing body of historical and geographic literature now exists to show that the spatial structure, or internal morphology, of American cities has changed rather considerably over time. A most profound alteration, for example, in the morphology of the large cities of this country has been observed between, roughly, the first and second halves of the nineteenth century. The purpose of this paper is, first, to describe the nature of that shift and, second, to provide a systematic framework to help account for the change. It is hoped, in particular, that from this a clearer understanding of the origins of suburbanization—or rather certain dimensions of urbanization presently associated with that term—may emerge to supplant the naive view that suburbanization is a “natural” outcome of (1) increasing affluence of consumers with a taste for space and (2) disembodied technical change in transportation and production.⁸

This is an interpretative essay rather than an accounting of new historical evidence. But a fresh way of looking at existing data can make them appear as new. A certain familiarity with the outlines of American urban history is presumed, so that only the relevant highlights will be emphasized. Admittedly, the available data are not so numerous or sufficiently precise as to permit uncritical confidence in any explanation of urban transformation in the nineteenth century. One hardly need say that the conclusions reached in this paper need further study. On the other hand, a virtual consensus exists among urban historians and geographers on many points concerning the profound realignment of the internal structure of the leading cities of the United States during the last century: that the years from about 1830 to the Civil War were a crucial time of change is undisputed, if for no other reason than the observably vast difference in the way cities appeared between the first and last quarters of the cen-

tury. But accounts of timing, cause, and process in this change are sufficiently gnarled so as to demand an effort to venture into the bog of history, theoretical sword in hand, in hopes of cutting through the tangle and laying the essence bare.

Prefatory Remarks on the Theory Under Which We Labor

Urbanization and Capitalism

Modern urbanization is taken here to be part and parcel of the larger process of capitalist development, a process of great apparent complexity and constant flux. But beneath the superficial complexity and movement, it is possible to discern an underlying stability—an eye of calm at the center of the storm—owing to certain fundamental social relations. The pivotal relations of capitalism arise in production, centering around the capital-wage labor relation. From this relation flow the most essential dynamics of capitalism: economic, social, environmental, and so forth. The three most important are: (1) production, appropriation, reinvestment, and expansion of surplus value or the accumulation of capital; (2) the antagonism between the working class and the bourgeoisie engendered by the latter's control over the means of production and, hence, over the product and process of social labor; and (3) the transformation of nature into commodities under the domination of the bourgeoisie and the pressures of accumulation. Yet the analogy to the hurricane is misleading for the eye of the storm is, in this case, also the cause of the storm, the fundamental source of contradiction in capitalist society. It is the tension arising from below—the drive for the accumulation of capital (and the self-contradictory nature of this drive), the struggle among the classes, the limits to the exploitation of nature—which provide the chief driving forces for historical change under this system.

Capitalist urbanization partakes of the contradictions and movements of capitalist development. Urbanization is not, of course, a mere reflection of an organic totality, but rather an internal relation of the whole of capitalism. It thus adds its own wrinkles to the whole and cannot be collapsed to a simple identity with it. It is strongly structured, but not determined, by capitalist development; the latter sets the problems and the possibilities for capitalist cities. The mode of production makes certain demands on urbanization and must also supply the means for meeting them. Capital works at both ends at the same time.

Capitalist accumulation, or production as a whole, depends on a functional working out of the various moments of production, circulation, distribution, and consumption over definite periods of time. Urbanization

must facilitate this process of capitalist social cohesion and here, too, urbanization is a condition of the production of capital. Urbanization must keep the ongoing capital accumulation and keep the bourgeoisie in the age of capitalism has

But the solutions will never be permanent. Social change as the underlying condition will face anew. Thus, the system ultimately contains contradictions of urbanization.

Nor are urban solutions widely credited, for in the better or worse. This is the character of American capitalism: forces, ideology, government, a recognizable suburbanization than in the United States increasingly "American" despite differences in nature. We be working in similar conditions undeniable convergence of the problem of advancing other wide-ranging conditions business district, too, elements and have evolved the choice of urban imperatives of the capital

Urbanization and Accumulation process the periodic crises of accidents or random from the logic of accumulation of crisis in *Capital*. Social conflict between bourgeoisie between the present and capitalists, and so forth consistent for a time within a cycle of accumulation

must facilitate this process and the relations among its parts. Similarly, capitalist social coherence depends on the mitigation of class struggle; and here, too, urbanization plays a necessary mediating role in the reproduction of capital. Urbanization therefore forms part of the "solution" which ongoing capitalist societies create of necessity to further accumulation and keep the body politic from being irretrievably rent apart. Every age of capitalism has its distinctive "urban solution."¹⁰

But the solutions which capitalism devises—urban and otherwise—are never permanent. Social strife and economic crisis break out periodically as the underlying contradictions of capitalism force their way to the surface anew. Thus, the solution of every age of capitalist development ultimately contains contradictions, including those of the mode of urbanization.

Nor are urban solutions uniquely determined. American cities are widely credited, for instance, as the most suburbanized in the world, for better or worse. This distinction flows, no doubt, from the special character of American capitalism and out of the particular conjunction of class forces, ideology, government structure, and the like operating here. But a recognizable suburban movement actually occurred earlier in England than in the United States, and the cities of Europe have taken on an increasingly "American" and suburban look in the postwar era. So, despite differences in national cultures and institutions, capital appears to be working in similar ways on both sides of the Atlantic, creating an undeniable convergence of many aspects of the "suburban solution" to the problem of advanced capitalist urbanization. This—and the fact that other wide-ranging changes in urban form, such as the rise of the central business district, took place with the rise of capitalist cities on both continents and have evolved continually ever since—leads one to believe that the choice of urban "solutions" is sharply circumscribed by the structural imperatives of the capitalist mode of production.

Urbanization and Accumulation

Accumulation proceeds in distinct cycles of growth and crisis. For Marx the periodic crises of capitalism were not to be explained as a series of accidents or random fluctuations, but as recurrent contradictions arising from the logic of accumulation itself. Marx points out a number of sources of crisis in *Capital*. Suffice it to say that they depend on internal conflict: conflict between buyer and seller, between workers and capitalists, between the present and the past embodied in fixed capital, among fellow capitalists, and so forth. At the same time, accumulation must be internally consistent for a time, or it would not succeed at all. At a given moment within a cycle of accumulation, one can discern a definite and necessary

arrangement of the moments of production as a whole—primary production, circulation of commodities, circulation of money, consumption, distribution—and of the superstructural institutions which guide these arrangements in everyday life. Put another way, there will be a particular *growth ensemble*, or growth path, under which accumulation proceeds successfully. The mode of urbanization is an essential part of the growth ensemble.

Capitalist growth ordinarily builds up from a stable base at the beginning of a cycle and becomes increasingly rapid in absolute terms until the limits and contradictions of the existing growth ensemble result in checks to further growth along existing pathways; yield increasing instability; and lead to the onset of crisis. The upshot of encountering limits to growth and destabilizing forces is, in the first instance, an overproduction of capital (in any of its forms as money, commodities, and labor power). That is, there is no insurance that reequilibration of the system will take place in the face of its own contradictions before a major accumulation crisis takes place. This, like accumulation itself, is owing to the force of competition, which drives individual capitalists to seek to expand their own capital, despite the adverse collective impact of such anarchistic actions. David Harvey calls this phenomenon "overaccumulation," and it has occurred at the end of every major accumulation cycle, with varying degrees of severity.¹¹ Yet, equilibrium must be restored, so the ultimate result of the crisis will be a forced rationalization of the economy. This will be carried out by the automatic processes of the market (e.g., bankruptcy), the class-conscious reform efforts among capitalists, and the help of the state. In the end, both overaccumulation and forced rationalization help the economy get back on a new growth path. Surplus capital pushes into "new economic space," and forced rationalization adjusts the institutional arrangements of the growth ensemble. Here lie decisive forces for change in capitalist society, forces which greatly overshadow the usual considerations of spontaneous innovation, entrepreneurial guile, and the prick of competition.

As a consequence of growth within an ensemble followed by overaccumulation and crisis, accumulation and social change are decidedly lumpy, allowing us to speak of definite cycles or stages of accumulation and of pivotal eras of reform and change. Urbanization and change in urban structure relate directly to the succession of cycles. These are not just fluctuations imposed on urbanization, but they actually describe the mode of urbanization.

Two major cycles can be discerned from the multitude of lesser fluxes and general "background noise" in the business climate. The first cycle is that of the Kuznets waves, lasting from fifteen to twenty-five years. It has been identified in a wide variety of economic indicators and by a wide assemblage of eminent economists and other investigators.¹² The second,

and more controversial, movement first appeared in the late 19th century, a "stage of accumulation" which is debatable, given the evidence, but they appear as the three pivotal eras of the post-Romanian era, the 19th century eras.

In this paper, the stages of accumulation are 1842, 1842-1890, 1890-1914, and 1914-1945. Urbanization attains its peak at the steps of accumulation, which the story of the growth ensemble is a scope of a single cycle, special points of accumulation.

Finally, real capital accumulation requires building requirements, roads, and infrastructure to support the new built environment with primary productivity (or productivity) in the primary capital investment result, construction depressions, and

The creation of a number of problems here. But the model is perfectly, nor in a non-featureless outlined, this cycle literally freezes this image can be

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and more controversial, period of growth is the fifty- to seventy-year movement first discerned by Kondratieff, for which I prefer the name "stage of accumulation."¹³ The evidence for Kondratieff stages is highly debatable, given the scale of events and our limited experience with them, but they appear to explain major differences among historical eras as well as the three profound periods of social upheaval and change—the Jacksonian era, the Progressive era, and the 1930s, which separate the major eras.

In this paper we will focus on the first two Kondratieff waves, or stages, of accumulation after the American War of Independence, circa 1780–1842, 1842–1896, the transition between them, and the distinctive style of urbanization attached to each. A finer lens would force us to look further at the steps of development marked out by the Kuznets cycle, without which the story must necessarily sound hollow; but, as this is beyond the scope of a single paper, reference to these cycles must be confined to special points of emphasis.

Finally, real cities of wood and stone must actually be constructed. City building requires investment in fixed and immobile capital, such as buildings, roads, and the like. This requires a level of accumulation sufficient to support the real cost of labor, tools, and materials which go into the built environment. But fixed capital investment is not strictly synonymous with primary production; it is introduced to deepen capital and increase productivity (or lower costs). It is itself a sign of growing overaccumulation in the primary circuit of capital.¹⁴ It has thus been observed that fixed capital investment is concentrated at the end of the Kuznets cycle.¹⁵ As a result, construction of cities tends to occur in waves peaking just before depressions, and normally accompanied by excessive land speculation.¹⁶

The creation of fixed and immobile capital in the form of a city creates a number of problems for capitalist urbanization which cannot be pursued here. But the most important one is that the built environment is not perfectly, nor instantaneously, flexible. Cities create their own decidedly non-featureless plain. In terms of the model of accumulation cycles just outlined, this comes into play because today's fixed capital investment literally freezes the image of the present into concrete and asphalt, and this image can become a barrier to accumulation in the future.

Urbanization and Suburbanization

What is suburbanization? This question is certain to cause a vigorous falling out among any collection of urban scholars. Unfortunately, the historical work on suburbanization remains in both its theoretical and empirical infancy, to which this essay offers no final solution.¹⁷ Today suburbanization in the United States is typically known by reference to a number of salient characteristics, such as peripheral growth, low density,

and functional segregation of land uses. Automobiles, trucks, and the ubiquitous highway tie together this far-flung urban space, particularly by mediating the lengthening journeys to work and to market. Large areas of the suburbs are devoted exclusively to residential use, particularly on the outlying fringes, but equally noticeable are the nodes of commerce (shopping and office centers) and industrial districts. The mode of residential life seems to follow the lead of the wealthier trend-setters or at least to follow the dictates of the "proper" middle-class lifestyle, simultaneously growing out of a worried glance cast back over the shoulder at the inner city with its lower-class, nonwhite populace. That lifestyle is deeply grounded in homeownership, home-based consumption, family life, and the detached house sitting in its small garden plot; but almost as important as this private mode of living is the small-scale collectivity of consumption achieved through social homogeneity of the community, attention to local schools, and other public services.

Both the private and collective aspects of consumption depend heavily, it should be added, on the highly fragmented form of the state at the level of local suburban governments and on their various tools for taxation, spending, and police powers. The suburbs appear to be a kind of uneasy compromise between country and city, the city spilling out over the countryside and the countrified landscapes incorporated into the city. More features could undoubtedly be added to form a picture of the suburban ideal type, with diminishing rewards for developing an understanding of the suburban process.

Where did all this come from and when did it begin? It is by now widely understood that suburbanization did not begin with the close of World War II. Although the postwar period has some new features (and the very recent past points to some radical alteration in the suburban pattern), the roots of suburbanization go very deeply into American history. The greater part of the postwar pattern of city building was fully worked out by the 1920s. The achievements of that decade rest in turn on forces that emerged first during the Progressive era and which were based on the crucial structural changes in capitalism centered around the depression of the 1890s. It can be argued, then, that a distinctive twentieth-century form of urbanization and suburbanization corresponds to the stage of modern corporate capitalism.¹⁸

But the twentieth-century pattern of urbanization qua suburbanization was built on the foundation of movements under way in the nineteenth century. Certain aspects of urban structure which we think of as "modern" and recognize as characteristically "suburban" appear very early in capitalist development. In particular, a bundle of decisive changes coincides with the coming of the United States Industrial Revolution, a process pivoting on the transition from the era of petty commodity production

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(1780-1842) to the era of generalized industrial production (1842-1896) and emerging fully over the course of the later period. It is this story that we take up now.

Presuburban Cities of the Petty Commodity Mercantile Stage of Accumulation, 1790-1842

The initial half century or so of American history after independence is often treated as a kind of halfway house between colonial society and industrial society. While this is a truism, the era deserves to stand on its own as the mature stage of the petty commodity mode of production.¹⁹ This was the dominant mode of production within the social formation of the northern states, although a true capitalist mode, epitomized by the textile industry, was rapidly expanding in its midst. (We ignore here the fortunes of the distinctive slave mode of production in the South, which also reached its apogee in the social formation of the U.S., as a whole, during the first half of the century and which was central to the process of proto-capitalist accumulation.) The post-colonial era was the high tide of expansion for the system of small, independent proprietors, farmers, and artisans, producing for the market but owning their land, homes, and basic tools.²⁰ Post-revolutionary America was a thoroughly commercial order, proto-capitalist in all respects: a money economy of private property, individual mobility and acquisitiveness, generalized exchange, and rapidly accumulating capital. Under these powerful solvents, residuals of colonial life, such as subsistence farming, the centrality of religion, hierarchical stratification, and communal social ties, rapidly dissolved. But the quantity of free land and rich resources ensured that the central core of producers was not yet divorced from the means of production.

This mode of production presupposes a certain development of trade, finance, and manufacture: in short, a mercantile order. Along with this came a mercantile class structure of merchants and small masters on one side and casual day laborers on the other.²¹ Significant inequality in wealth and concentration of ownership were most marked in the areas of greatest commercial penetration near the urban centers.²² It also presupposed British capitalism and substantial European economic domination. Yet, political independence did allow this mode to break free from restrictive British mercantile policies and develop to its limits. Nor were domestic attempts at mercantile restriction emanating from eastern merchant, manufacturing, and finance capital markedly more successful in stemming the agrarian tide across the Appalachians or the political high tide of Jeffersonian and Jacksonian Democracy. Nonetheless, the petty commodity mode of production held within itself the seeds of its own transforma-

tion to industrial capitalism, and as it unfolded the true independence of farmers, artisans, and household production became increasingly problematic.²³

The productive base of the time was still decisively agriculture, where eighty-one percent of the work force still labored as late as 1810.²⁴ The landscape was overwhelmingly rural. Nonetheless, urbanization picked up very rapidly with rates as high or higher than at any subsequent time in American history. The percentage of the total population residing in places of greater than 2,500 persons grew from 5.1 to 10.8.²⁵ Furthermore, the concentration of population within the urban system was extreme. The four great seaports—New York, Philadelphia, Baltimore, and Boston—towered over the lesser towns.²⁶ Our chief concern here lies in the internal structures of mercantile cities. At the same time, however, it is essential to consider the characters of a special class of small towns, which carried the seeds of revolutionary change: the industrial mill towns of the Northeast.

The national economy grew quite rapidly during the petty commodity stage of accumulation. The most dramatic advances were registered in the areas of southern cotton, western settlement, and mercantile fortunes made in international trade.²⁷ Manufacturing, including the beginnings of modern factory production, developed more or less in the background of national affairs, gaining its first decisive foothold during the period of the Embargo and the War of 1812 and making decisive strides in the 1820s and '30s. Despite its small size, however, domestic manufacturing growth appears to have set the pace of the business expansion during the Kuznets cycles of 1808–1822 and 1823–1824. Each successive upswing in the economy after the Revolution surpassed the last in strength, as well as in the excesses of overaccumulation which topped off the wave of expansion. The 1830s closed the era on a note of severe overaccumulation in which a growing weakness of manufacturing profits was lost in the general euphoria of land speculation, urban construction, and internal improvements. When, at last, the overheated economy collapsed, the country settled into the worst depression it had thus far experienced and one of the deepest in American history (1839–1842).²⁸

The Industrial Revolution came to America during the petty commodity stage of accumulation but did not revolutionize it at that point. By 1840 the proportion of the labor force occupied in manufacturing had risen only to just under nine percent, while that in agriculture was still over sixty percent.²⁹ Textiles and shipbuilding were virtually the only large-scale manufacturing processes, and, along with large-scale construction of canals, turnpikes, and railroads, acted as "the backbone of the strictly industrial component" of this era, according to Schumpeter.³⁰ Factory production dominated only one industry: textiles. Independent artisans and small masters were still the rule in most branches of manufactures,

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The development of closely related factories, with competition flooding the "free" labor force, developed domestic ingenuity of merchandise, fourth best behind

What did all of the first stage of accumulation, so dominated the mercantile and petty observed: "The factory, the cornerstone of modern created in the industrial towns, and even in cities. We will continue

In the mercantile proceeded very fast production. In the were ordinarily the even the great man first floor of the partners, journeyman's family."³⁴ In labor force work place was prevented yet become concentrated production had a single roof in the highly decentralized. As a result of the tion, everyday commerce the mixed fabric of zoned cities of the

Some wage labor places of employment were large enough a distinct use of total gravitational

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and normally they sold their commodities as well, though there was some minor use of the putting-out system.

The development of industrialization was checked by a number of closely related factors.³¹ The most important of these were: British competition flooding the market with cheap goods; the lack of a significant, "free" labor force willing or compelled to leave other occupations; poorly developed domestic markets and overland transportation; and an unwillingness of merchant capitalists to invest in manufacture (considered fourth best behind trade, land, and public works).³²

What did all of this mean for the internal structure of cities during the first stage of accumulation? The large port cities of the Northeast, which so dominated the urban scene, remained almost wholly consistent with the mercantile and petty commodity economic basis of the time. As Pred has observed: "The factory and industrial capital had not as yet become the cornerstone of metropolitan growth."³³ The only urban places which were created in the image of industrial capitalism at this time were the mill towns, and even they had features rather different from later industrial cities. We will consider the two modes of urbanization in turn:

In the mercantile cities, functional separation of land uses had not proceeded very far owing, principally, to the still uncentralized nature of production. In the first place, the place of work and the place of residence were ordinarily the same for the artisans, small masters, and, oftentimes, even the great merchants. "Often their stores or workshops were on the first floor of their houses, their living quarters on the second. Junior partners, journeymen, or apprentices might 'live in' as part of the employer's family."³⁴ In New York as late as 1840 only about one-fourth of the labor force worked outside the home.³⁵ Separation of home and work place was prevented, above all, because the means of production had not yet become concentrated under the ownership of the capitalist class, and production had not yet been brought, for the capitalists' benefit, under a single roof in the factory. For much the same reason, merchandising was highly decentralized in tradesmen's shops or small retail establishments. As a result of these decentralized conditions of production and circulation, everyday commerce, production, and living were interwoven through the mixed fabric of the city in a fashion quite alien to the strategically zoned cities of today.

Some wage labor did exist and these people needed to reside close to places of employment, accessible by foot. But only a handful of employers were large enough to require any significant amount of space—creating a distinct use zone aloof from the fabric of the city—or to exert a substantial gravitational force on the districts nearby.

The centralization of activity and employment that existed in the mercantile cities derived chiefly from exchange. The great cities were all ports, and the docks provided an essential focus for economic life:

The chief business of the great seaports was commerce; the location of the wharves determined the focus of activity. Warehouses and countinghouses, the establishments of great merchants, and the retail outlets of petty tradesmen, the taverns and grogshops all crowded close to the waterfront, and the longshoremen, hustlers, clerks, shiphandlers, sailmakers, and coopers lived nearby.³⁶

This description was meant to apply to the situation circa 1800. Over the course of the mercantile stage of urban growth, distinct wholesaling and retailing districts broke off, and wholesaling even began clustering into specialized subdistricts. The former movement began in New York around 1780 and in Boston by 1800, while the latter began in New York between 1795 and 1800. The first intentional luxury retail areas appeared in New York by 1805 and Boston in the 1830s. The big ports also developed small, but clearly defined, financial districts before 1840. New York pioneered here once again with its Wall Street aggregation, which formed between 1805 and 1910.³⁷ Then, along with these commercial centers, the mercantile cities ordinarily had distinct administrative loci, where a state building or city offices might be found, and all had their "better" neighborhoods, consisting of the fine houses of wealthy merchants and other persons of moment, for whom a central location bespoke status and provided access to the cultural and economic pulse of the city.³⁸

These subcenters related to each other closely both in space and in function, creating an early sense of centrality and even of a central business district. But the degree of centralization of urban economic life, especially *production*, does not begin to compare with that achieved in the cities of the industrial era to follow.

If "functional" separation of land uses was not yet highly developed, neither was "social" segregation. Unfortunately, our understanding of class distinctions and conflict and the way these worked themselves out spatially in this period are not terribly good. But clearly an *industrial* class structure had not yet arisen, with its focussed confrontations in the work place or vast gulfs of wealth. Since wage labor was not yet generalized, it is best to speak of laboring *classes*, divided among casual day laborers, artisans, journeymen, apprentices, and so forth.³⁹ While the varied work relations of these laborers before the age of the factory precluded anything like the collectivity and class antagonism of the later industrial proletariat, they also seem to have precluded the same intense divisions which later developed within the working class. That is, before the era of mass immigration began in the 1840s, racial and religious conflicts do not appear to have been so severe among the laboring classes as they later became, nor were stratifications among different skills a strong divisive force. Those in the crucial artisan class certainly did not consider them-

selves particularly alienated from the masters and the conditions of the cheek-bite. Nonetheless, this picture of the late eighteenth century is discerned.⁴² For example, in Southwark, numbers of people with the sea trade, and the urban fringe.⁴³

The latter is one of the classes, merchants and a strong need to provide the following description.

At the center of the public business and well-to-do leading class, and the leading class.

Reasons which may have been the cultural center threatened by their dominant classes. Control was still largely in the hands of the business affairs in the urban roots, Boston, for example, complained of the consciously grand urban.

Nonetheless, within the mercantile discipline in the late eighteenth century of 1819 and again in the nineteenth century make the poor law, the creation of large, authoritative criminals, orphaned, led to the creation of a secure order.⁴⁷

At the same time in the nineteenth century that the urban was beginning to erode. Country the country became a country that living.

selves particularly alienated from the social order and, alternatively, allied with the masters and the unskilled laborers.⁴⁰ All this accords with descriptions of the cheek-by-jowl residential mixture of the mercantile city.⁴¹ Nonetheless, this picture should not be overdrawn because even by the late eighteenth century, distinct, segregated residential patterns could be discerned.⁴² For example, eighteenth-century Philadelphia's first suburb, Southwark, numbered among its population chiefly artisans connected with the sea trade, and blacks in that city were more frequently found on the urban fringe.⁴³

The latter is one indication that "decreasing desirability of location corresponded with increasing distance from the center."⁴⁴ The dominant classes, merchants and small employers, and professionals did not yet feel a strong need to put space between their homes and the city, as the following description indicates:

At the center of the metropolis clustered the churches, the public buildings, and the homes of the most prominent and well-to-do citizens. Nearby lived lesser merchants and leading craftsmen, their residences frequently intermingled with commercial buildings.⁴⁵

Reasons which may be surmised for this behavior are that the city center was the cultural center of urban society, that the wealthy did not feel threatened by their social inferiors, and, probably most important, that the dominant classes wanted ready access to their place of business, since control was still largely personal in nature; many still carried on their business affairs in their homes. As a reflection of this confidence in their urban roots, Boston merchants of the early nineteenth century, for example, complained of the "country look" of their city and adopted a consciously grand urban style: the Georgian townhouse of London.⁴⁶

Nonetheless, new social conditions began to create marked tensions within the mercantile city. Concern for controlling and inculcating work discipline in the laboring population became intense following the Panic of 1819 and again in the mid-1830s, showing up as reform movements to make the poor laws harsher; temperance movements; and the proliferation of large, authoritarian, and highly ordered institutions for the poor, criminals, orphans, and the insane. Riots in Boston during the mid-thirties led to the creation there of the first modern professional police force to secure order.⁴⁷

At the same time, the first signs appeared in the second quarter of the century that the upper-class love for the city as a living space was beginning to erode. Country seats, summer traveling, and a Romantic view of the country became the rage: "So many prominent men retired to the country that living in the country became the fashion."⁴⁸ More important

the 1830s brought, for the first time, an effort to blend the country into the city within the rounds of everyday life, as some of the big bourgeoisie started commuting by steam railroad or ferry, and the first countrified, Romantic parks made their appearance in the somewhat bizarre form of the "Romantic cemetery." Some of the lesser elite—petty bourgeois, jobbers, clerks, and skilled workmen—moved to more peripheral locations within the city and began commuting by omnibus: a horse-drawn wagon on a fixed schedule and with a flat fare.⁴⁹ But the modest extent of this movement, which should not be exaggerated, is indicated by the relative obscurity to which the omnibus boomlet has been relegated by urban historians.

Other tendencies which characterize modern urbanization/suburbanization were better developed. Unplanned growth was already the dominant mode of urban settlement and expansion.⁵⁰ While speculative land conversion on the urban fringe is a weak index of suburbanization, it does contrast with the relatively unitary, preplanned, or segmental building of mill towns at the same time.⁵¹ This tendency became stronger throughout the petty commodity stage of accumulation, indicating the progress of accumulation and, concomitantly, overaccumulated capital seeking outlets in the city-building process. It also bears witness to the fact that the free market in land operated more thoroughly in the United States at the beginning of the nineteenth century than it would in some European countries in the mid-twentieth century.⁵²

In addition, it was already commonplace by the 1830s for the fastest growing areas to lie outside the existing political boundaries of the cities; this tendency, too, became more marked as the century progressed.⁵³ But, unlike today, annexation soon brought these early "suburbs" into the political fold.⁵⁴ It should be clear from the preceding discussion that these early suburbs were not, to any measurable degree, residential bedroom communities for well-to-do commuters to the central city, and their class character was more likely to be common than elite.⁵⁵ It is difficult to impute any intentional escape from the political jurisdiction of the city motivating this type of satellite development; it seems, rather, to be a case of low-level polynucleate growth to which political boundaries normally adjusted in time. Early suburban polynucleation appears to be owing partly to the mercantile division of labor and partly to a relatively undifferentiated process of satellite town growth in the vicinity of larger cities.

Urban density and density gradients—whether of population, floor space, or rent—are potentially helpful indices of changing urban structure, but adequate data for the nineteenth century are rather scarce. It is well known that mercantile cities were quite compact compared to today's cities. The urban-rural fringe was usually quite abrupt. Since the prevailing mode of travel was by foot, there was little of the modern sort of

"leapfrogging" development and the prevailing building peak densities of population of the nineteenth century atypical; Chicago reached 1900.⁵⁷ On the other hand, declined from 1830 (perhaps of all big cities).⁵⁸

It should be clear from explain the density or sp their being chiefly "wa putting space between would new means of tra fares or the capital to in of accumulation; and, s outlets in "internal im quantity at last during omnibus service corres of the Kuznets cycle).⁶⁰ technology is sealed by streetcars) were both t adoption. Indeed, the f in 1662, only to fail for cars, already the rage in and fail there, too.⁶¹

Mill Towns

American industrialism lished first in New Eng northeastern countryside of the mills and the ch to house their workers of the time. The first t side, not in the towns remained there much factors of production: laboring population w mill towns were norm to which their produc capital reached out.

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"leapfrogging" development involved in the urban expansion process, and the prevailing building style was row-type housing.⁵⁶ In Philadelphia, peak densities of population may have been reached during the first half of the nineteenth century, and certainly by 1860, but this is probably atypical; Chicago reached its highest densities in 1890; and New York, in 1900.⁵⁷ On the other hand, Philadelphia's population *gradient* steadily declined from 1830 (perhaps sooner), and in this it was undoubtedly typical of all big cities.⁵⁸

It should be clear from what has been said that it is not sufficient to explain the density or spatial structure of mercantile cities by reference to their being chiefly "walking cities."⁵⁹ There was as yet little reason for putting space between classes, races, work and home, and so forth. Nor would new means of transport be available without the means to pay their fares or the capital to invest in them, which required, first, a definite level of accumulation; and, second, a wave of overaccumulated capital seeking outlets in "internal improvements." The latter was forthcoming in vast quantity at last during the 1830s; and, not surprisingly, the boomlet in omnibus service corresponds to the general building-transport cycle (part of the Kuznets cycle).⁶⁰ The case against explanation by transportation technology is sealed by the fact that omnibuses (and later horse-drawn streetcars) were both technically feasible for decades before their general adoption. Indeed, the first horse-drawn transit system was tried in Paris in 1662, only to fail for lack of demand. In the 1860s, horse-drawn streetcars, already the rage in the United States, would be introduced to London and fail there, too.⁶¹

Mill Towns

American industrialism had its origins in a handful of textile mills, established first in New England in the 1790s and soon proliferating over the northeastern countryside during the petty commodity era.⁶² The location of the mills and the character of the so-called "Arkwright villages" built to house their workers reflect the basic conditions of industrial production of the time. The first thing to note is that industry grew up in the countryside, not in the towns, just as it had in England; but, unlike England, it remained there much longer, because the big cities lacked two essential factors of production: good sites for waterpower and a significant, free-laboring population willing to work in the new factories. Nonetheless, the mill towns were normally clustered within the vicinity of the great ports, to which their products flowed and from which the long arm of merchant capital reached out.

Pioneer industrialists, such as Samuel Slater of Rhode Island, had to solve the labor shortage problem by devices such as hiring entire families, including the children, and building housing for the workers.⁶³ This hous-

ing was not only substantial, but also was oriented directly about the mill, which figured as the center of village life. This was both a convenience and a social statement.

Most of the mill towns were quite small (as befits the subordinate position of industry at the time), with one exception being the city which became known as "the American Manchester": Lowell, Massachusetts.⁶⁴ Following the scheme begun in nearby Waltham (founded 1814), mill complexes in Lowell (founded 1821) integrated all phases of textile production at one location, bringing together what was otherwise scattered all over the New England landscape. Lowell's spatial structure was by no means a revolutionary departure from that of the smaller mill towns; however, it grew up in segments which retained their focus on the mills, making this "a city of cells rather than a countryside of cells."⁶⁵

All mill towns had to be planned, in a sense, since they were built directly for the mill owner as a necessary part of creating a viable factory operation. No free market operated in the development of land or the building of worker housing. Lowell was remarkable in that it was the first attempt to build a *model* industrial town in America. In this, the correct moral order for the laboring people (the great preoccupation of the age) figured very largely. The merchant capitalists of Boston and Kirk Boote, their agent, took care to build a proper social life into their town. They installed a decidedly paternalistic, hierarchical, and even familial social order in the boarding houses built to house the female workers drawn from the New England countryside. Indeed, the famous mill girls of Waltham and Lowell themselves represented a significant innovation in industrial labor. These women were employed not only because they represented one of the few sources of available labor, but also, no doubt, because of their presumed tractability in the face of a novel work situation. The cultural life of the mill girls outside the factory and the residence—such that it was, given the long hours of work and strict domestic oversight—was also carefully provided for, from the exclusion of entertainments of ill repute to the subsidization of a literary journal, the *Lowell Offering*.⁶⁶ It is interesting to note, however, that with all this careful devotion to the factory workers' lives, casual day laborers employed in construction were not provided for at all in the Lowell plan and had to fend for themselves in a shanty town on the outskirts of the town.⁶⁷

Lowell was widely considered to be, in the eyes of the bourgeoisie, the ideal urban solution of industrialism, the "American" solution to the evils of British-style industrialization. But despite careful planning, the social order of Lowell offered no special resistance to the crisis which beset the economy in the 1830s and '40s. The mill girls were driven out by the pressure to reduce wages and rationalize the work process in response to deteriorating profits, and they were replaced by more malleable immi-

grants. Lowell even bation for the ten-hour fifty years later, the dominant classes ag planned cities where t classes were too read

Urbanization and Sum of Accumulation, 18

The Transition from F to Full Industrialization The second half of t period of the full inc forces making possib the first severe crisi depression of 1839– cumulation in the 18– the American econo to another. It was in completely the face nature of the change Civil War.⁷⁰

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Manufactu the 1830s way. But it pace of inc Northeast region.⁷³

Three influences

grants. Lowell even became something of a focus of working-class agitation for the ten-hour day.⁶⁸ Just as in the ill-fated model town of Pullman fifty years later, the failure of the Lowell ideal undoubtedly warned the dominant classes against undue optimism about the possibilities of planned cities where the relations between work and home life and among classes were too readily apparent.⁶⁹

Urbanization and Suburbanization in the Industrial Stage of Accumulation, 1842-1896

The Transition from Petty Commodity Production to Full Industrialization

The second half of the nineteenth century is generally acclaimed as the period of the full industrial revolution in the United States. The crucial forces making possible a generalization of this revolution appeared with the first severe crisis of overaccumulation in the late 1830s, the deep depression of 1839-1843, and the next burst of accumulation and overaccumulation in the 1840s and '50s. Turning on the pivot of the depression, the American economy shifted from one stage of capitalist accumulation to another. It was in the full industrial stage that capitalism transformed completely the face of the landscape and the character of social life. The nature of the change from one era to another was clear by the eve of the Civil War.⁷⁰

In the long Kuznets wave swing from 1842 to 1859 manufacturing clearly replaced cotton as the leading sector of the economy. The strong revival of manufactures after the depression of the early 1840s indicates their new role, and a remarkable increase in output and labor productivity took place in the decade 1844 to 1854. The rise of nearly seventy percent in these figures was the largest decennial growth rate in the entire nineteenth century.⁷¹ Furthermore, the range of commodities partaking of this growth had broadened considerably from the traditional leaders, such as textiles and shoes, to include, especially, some capital goods industries, such as iron and light machinery.⁷² Douglass North emphasizes the contrast with pre-depression conditions, remarking that:

Manufacturing growth throughout the Northeast during the 1830s gave evidence that this development was under way. But it was during the 1840s and early 1850s that the pace of industrialization accelerated to the degree that the Northeast could unequivocally be called a manufacturing region.⁷³

Three influences stand out as the cause of the great leap forward: The

first was the broadening of the national market.⁷⁴ This was owing, above all, to the lowering of transport costs and internal integration brought about by the canal system built at the end of the previous boom.⁷⁵ Canals in the East and the canal-steamboat traffic in the West formed the initial basis for what George Roberts Taylor calls the "Great Breakthrough" into a national market.⁷⁶ But it should also be emphasized that a truly national market was by no means a fact before 1860; it had to await further waves of railroad building, the standardization of railroads in the 1870s, and, of course, the conquest of the South and of the western plains. Forging a national market was the business of the whole of the industrial stage of accumulation, not only its first cycle.

A second and far more fundamental source of industrial advance proceeded through an attack on labor that lowered real wages, rationalized the labor process in the factory, and undermined the independent artisan. In the textile factories the assault on labor began as early as the first downturn in prices in 1834, shattering the paternalistic harmony of capital and labor in the Lowell mills.⁷⁷ The attack consisted of cutting wages and intensifying work and was aided by the application of improved machinery, hiring of scab labor from among newly arriving Irish immigrants, blacklisting and other strike-breaking methods, and the creation of unemployment.⁷⁸ Pressure increased during the depression, precipitating a wave of strikes in the mills, but the owners were victorious. As a result, profits in the mills picked up rapidly in the years 1844 to 1847, although wages and labor conditions did not.⁷⁹ When textile prices slumped again in 1848, the attack on labor began anew.

Norman Ware has traced a similar pattern of degradation of the mechanics, laborers, and household workers in a variety of trades outside the factory system, showing the same pattern of declining real wages: increasing competition from mechanization, immigrants and child labor; desperate intensification of work in an attempt to stem the tide; increasing loss of control to outsiders; and the angry outbreaks of strikes, riots, and political protests (most of which were failures).⁸⁰ Again, the process of decline began during the overproduction of the 1830s, peaked in the hard times of the depression, and continued sporadically throughout the 1840s and 1850s. It is fair to say that the back of the independent mechanic's resistance was broken in this period. Union membership fell between the 1830s and 1860, and during the 1850s a new form of labor struggle, the craft union, emerged as dominant.⁸¹

At the same time, the factory system was widely adopted outside the textile industry during the 1850s.⁸² The proportion of wage laborers rose dramatically at the expense of independent artisans and household manufacture, even though the average size of all manufacturing establishments remained quite small (8.5 persons).⁸³ By 1870 the number of self-em-

ployed or employers outside the manufacturing labor force. An additional 24.3 percent, making equal to 32.9 percent of the laborers, 28.7 percent were in agriculture (additionally on workers).⁸⁴

On the side of capital, efforts were made to facilitate the above changes by the limited liability corporation acts of 1824 and 1855. The latter act, passed after 1837 in passing the limited liability corporation acts.⁸⁵ This development was accompanied the shift to the separation of ownership and control in the 1840s.⁸⁶

The third major factor of accumulation in agriculture opened grain fields of the staples for industry and was the boom of the 1830s also helped in the South, carrying over manufacturing in the East its demand for eastern market. Agricultural mechanization to be invented and introduced (reaper) and was adopted for the second stage of accumulation. The marvelous richness of products, first significant jump at the commonly known as the period of the United States, and this revolution of the Industrial Revolution at the

The most important effect of the industrial revolution was to make labor move from the industrial sector to the agricultural sector by competition under conditions of technological change and periodic depressions (the 1830s), were the Yankee process of agricultural mechanization on a world scale, and the competition of the United States and Argentina, plus the revolutionary effect on the economy of the United States at the beginning of the great

employed or employers outside agriculture amounted to only 8.6 percent of the manufacturing labor force. Independent farmers amounted to an additional 24.3 percent, making the total number of independent proprietors equal to 32.9 percent of the labor force. Against this, 67 percent were wage laborers, 28.7 percent were in agriculture and 39 percent were outside agriculture (additionally only 7 percent of the latter were "white-collar" workers).⁸⁴

On the side of capital, certain rationalizations were also taking place to facilitate the above changes. Most important was the spread of the limited liability corporation, facilitated by the change made by state legislatures after 1837 in passing general, rather than special, incorporation acts.⁸⁵ This development not only aided in financing industry, but also accompanied the shift to a hard-nosed management policy through a separation of ownership and control, rare in the mercantile period before 1840.⁸⁶

The third major factor speeding the advance of industry was the course of accumulation in agriculture. Overproduction in cotton and the newly opened grain fields of the Northwest dropped the price of agricultural staples for industry and workers. Transportation investments during the boom of the 1830s also helped lower costs of staples.⁸⁷ The glut of cotton in the South, carrying over into the 1840s, aided the revival of textile manufacturing in the East and abroad. Western agriculture also increased its demand for eastern manufactures, owing to the beginning of the first agricultural mechanization revolution. New agricultural machinery began to be invented and introduced in the 1830s (e.g., Cyrus McCormick's reaper) and was adopted for the first time on a large scale in the first cycle of the second stage of accumulation.⁸⁸ As a result of this—rather than the marvelous richness of prairie soils—agricultural productivity showed its first significant jump at this time.⁸⁹ The era of the 1840s and 1850s is commonly known as the period of the "first agricultural revolution" in the United States, and this revolution was clearly tied to the progress of the Industrial Revolution at the same time.

The most important effect of agricultural expansion through mechanization was to make labor redundant, rather than to absorb potential labor from the industrial sector. Marginal farmers were now being forced out by competition under conditions of overindebtedness, overproduction, and periodic depressions. The first to go in this country (beginning in the 1830s), were the Yankee farmers of the New England hill country.⁹⁰ But the process of agricultural expulsion at the margins was advancing on a world scale, and the combined impact of expansion in the United States and Argentina, plus the revolution in agriculture in Europe, produced a revolutionary effect on this country and the world just before mid-century: the beginning of the great European migrations to the "empty lands" of

the earth. The greatest beneficiary of this tide of humanity was the United States.⁹¹

The first trickle of Irish laborers in the 1830s joined with the New England hill people in beginning to undermine the position of the mill workers.⁹² But the trickle became a flood from 1845 to 1854 and fundamentally transformed the conditions for industrialization in this country. For here, at last, was the ready supply of surplus labor power which the factory system demanded.⁹³ The Irish, in particular, were destitute and without craft skills. Arriving at the eastern ports and unable to move on, they stayed to form a gigantic pool of cheap labor in those cities and throughout the Northeast.

The availability of the immigrants in the labor force accelerated economic growth and assisted in the process of industrialization. Their unprecedented numbers, in addition to causing seriously crowded living conditions in eastern population centers, also provided a supply of cheap labor abundant beyond immediate needs. . . . A tremendous increase in labor supply encouraged industrial development and made a major contribution to the outburst of economic productivity in the decade or two before the Civil War.⁹⁴

Not surprisingly, the total effect of immigration, the growth of industry, and so forth was to produce the fastest rate of growth of urban population in American history during the 1840s (93.1 percent) and the second fastest during the 1850s.⁹⁵

Growth in the Second Stage of Accumulation

The American economy continued to grow prodigiously during the balance of the nineteenth century, expanding along the lines established before the Civil War.⁹⁶ The industrial stage of accumulation consisted of three Kuznets cycles, roughly from 1842 to 1859, 1860 to 1877, and 1878 to 1896. Each cycle repeated the now familiar mode of growth: steadily expanding output capped by a burst of overaccumulation showing up as: fixed capital formation; especially intense railroad building and residential construction; land speculation; pyramiding of credit; and, finally, a financial panic led in every case by a failure of railroad securities. The expansion of output was associated with rapid population growth, the assimilation of waves of new migrants from farms and foreign lands, and growth of the industrial wage labor force (which was increasingly employed in factories and located in cities).

This was the age in which the business firm with a national market, typically a single-purpose, family-owned corporation, became the dominant form of business organization, and the factory replaced the workshop

as the form of labor production expanded with the aid of finance and management; the rapid assimilation of new steam power; and the growth, urbanization, which made feasible Manufacturing firms and merchant wholesalers (job retailing).

Urban landscapes advanced; people were of fixed capital in the This was the era of the basic urban network cities was marked, 10 percent of total population of great cities of over Rates of fixed capital than they would be in of the age, indicative

All the preceding decline of preindustrial independent proprietors in the interstices of industrial workers financial capital.

Urban Centralization

Within the major rearrangement of space which we now think cities. Behind the structure, a three-fold increase in production and circulation associated with an increase in areas; second, an increase in classes, led by the big economic and social use pattern is what "concentric ring" model formulated at a time dramatically transformed

as the form of labor process organization.⁹⁷ Industrial factory production expanded with the aid of: an increasing use of the corporate system of finance and management; a pool of cheap labor from which to draw; the rapid assimilation of mechanical innovations; the growing use of coal and steam power; and the steady growth of the market through population growth, urbanization, rising incomes, and national integration—all of which made feasible the adoption of techniques of mass production. Manufacturing firms also steadily freed themselves from reliance on merchant wholesalers (jobbers) and experimented with new methods of mass retailing.

Urban landscapes spread across the country as industrialization advanced; people were drawn into the urban-industrial centers, and waves of fixed capital in the form of factories, houses, and offices were laid down. This was the era of the rise of great industrial cities and the creation of the basic urban network in the United States. The population growth of cities was marked, rising from 1,845,000 to 22,106,000, or from 10.8 percent of total population in 1840 to 35.1 percent by 1890. The number of great cities of over 100,000 persons jumped from two to seventeen.⁹⁸ Rates of fixed capital formation were also extraordinarily high—higher than they would be in the twentieth century.⁹⁹ Chicago was the “shock city” of the age, indicative of the spread of industrialization to the Midwest.¹⁰⁰

All the preceding factors meant not only the rise of cities, but also the decline of preindustrial ways of life and production. The golden age of independent proprietors was passing. From here on they would exist only in the interstices of corporate capitalism. In their place stood the mass of industrial workers facing a small number of owners of industrial and financial capital.

Urban Centralization of Production and Circulation

Within the major industrial cities growth was accompanied by internal rearrangement of space, as a new kind of urban system unfolded, one which we now think of as characteristic of nineteenth-century industrial cities. Behind the enormous complexity of this developing urban structure, a three-fold movement can be discerned: first, a concentration of production and circulation in and around the central business district, associated with an interwoven concentration of working-class residential areas; second, an outward thrust of the residential areas of the dominant classes, led by the big bourgeoisie; and, third, a dramatic increase in the economic and social differentiation of urban space.¹⁰¹ The resulting land-use pattern is what E. W. Burgess later tried to capture in his familiar “concentric ring” model of urban structure, although this model was formulated at a time when the reality of urban structure was already being dramatically transformed by the rise of modern corporate capitalism after

the turn of the century. Each of the three movements will be taken up briefly, beginning with the primary force of centralization of economic life; for what occurred in the second half of the nineteenth century was, above all, a vast "implosion" of the economic and social landscape of the United States and a parallel centralization within the burgeoning cities, notwithstanding the continued growth of nonurban places and the urban periphery.

The urbanization of production and circulation took a major step forward in the 1840s and '50s and was paralleled to a large degree by the growth of the central business districts of the great cities. This was owing, above all, to the great wave of immigrants trapped in the eastern port cities, where they provided an unprecedented pool of cheap labor. It was this supply of surplus labor that attracted capitalist industry back into the old cities.¹⁰² In addition to being plentiful and cheap, the new recruits to the industrial labor force were also a good deal more docile and eager to take up whatever employment they could find than was the earlier generation of workers, who had become increasingly troublesome to employers. Certainly the eagerness of the employers to replace fractious native workers with immigrants is well evidenced in the old textile mills and in various trades, and there is every reason to believe that this exercised an influence on locational decisions as well.¹⁰³ Then, once the new locational pattern became established, it drew subsequent streams of migrants to the industrial cities where employment opportunities were greatest.

Steam power for driving machinery became practicable in the 1840s, freeing the factories from the need to locate near good waterpower sites out in the countryside.¹⁰⁴ Expensive coal had been the main obstruction to steam power in the first stage of accumulation, owing to poor transportation and inefficient steam engines. Only Pittsburgh and Wheeling used much steam power in the 1830s. But after 1840 the canals and railroads of the 1830s began to pay off in the delivery of cheap and abundant coal to the coastal cities, while technical improvements in the engines and the railroads built in the 1850s sealed the matter.¹⁰⁵

The big cities also offered their attractions as market centers and transshipment points, both of which became more important with the advance of capitalist development. The progress of internal transport and the growth of the internal markets normally went hand in hand, with the cities as hubs of the system. Market growth came about not simply through growth in population, production, and national integration on a pre-existing basis, but also through the radical transformation from one mode of production to another, particularly the penetration of capitalist production and market relationships into the rural hinterland, leading to the replacement of household and handicraft production by urban manufactures; i.e., the growing division of labor between town and country.¹⁰⁶

At the same time production, and before the era of hand manufacturing to "the market" meant access to sellers and wholesale intermediaries of commodities; to a variety of specialized insurance, and real estate of cities offered as a condition shortened transportation. Specialized production businessmen, and a structure of building a growing category of supply, gas lines, etc.

In short, the urban lumped together urban it is essential to reforce; they depend on industrialization the like. Furthermore before factory production communication technology the external economy longer necessary.

Most of the previously operated to commercial business district. The port and railway terminals, merchants, financial the primary mode principal intracity offered face-to-face residentially far-flung cation obviously the departure of the domestic of the working class be taken up below.

Additionally, the building: the warfare stage of accumulation—nated—and where

At the same time, with the increasing social division of labor within production, and between production and circulation (as compared with the era of hand manufacture and simple commodity production), access to "the market" meant something different than it had before. It meant access to sellers and purchasers of specialized intermediate goods; to wholesale intermediaries capable of organizing the large-scale movement of commodities; to major capital markets for financing; and to a growing variety of specialized professional services, such as law, architecture, insurance, and real estate brokerage. These things, too, cities and systems of cities offered as advantages for industrial location. Urban agglomeration shortened transport linkages, creating threshold demands for specialized production and labor services, valuable personal contacts for businessmen, and so forth. It also provided the essential physical infrastructure of buildings to house business and labor, along with a rapidly growing category of public service infrastructure (schools, sewers, water supply, gas lines, etc.).¹⁰⁷

In short, the urban system offered that variety of advantages normally lumped together under the heading "economies of agglomeration." But it is essential to recognize that these economies were not universally in force; they depended on a certain level of capitalist development, including industrialization, division of labor, concentration of ownership, and the like. Furthermore, these economies probably had their greatest impact before factory production, integrated corporations, and transportation-communication techniques were so far advanced as to internalize many of the external economies of urban concentration or to render them no longer necessary.

Most of the preceding factors drawing industry to the big cities similarly operated to concentrate production and circulation in the central business district. The central business district offered proximity to the port and railway terminal facilities and to the labor force, to other producers, merchants, financiers, and so forth at a time when foot travel was still the primary mode of transport for workers, and horse-drawn wagons, the principal intracity method of moving goods. Spatial proximity also offered face-to-face contact among an increasingly large, disparate, and residually far-flung bourgeoisie. These considerations of business location obviously hastened the movement of residential location; the departure of the dominant classes from the central city; and the collection of the working class near the center, the locus, of employment. These will be taken up below.

Additionally, the business district offered a most important type of building: the warehouse.¹⁰⁸ Particularly in the early part of the industrial stage of accumulation, before large-scale factory production predominated—and wherever it did not penetrate thereafter—these largely undif-

ferentiated shells of buildings provided great flexibility for setting up small machine manufacturing operations in newly mechanized handicraft industries, mercantile transactions, and in jobbing, as well as for providing storage. Warehouses had, of course, been a major part of the urban scene during the mercantile period, but after 1840 the warehousing district expanded very rapidly to fulfill its new, productive role. This physical development, it should be added, reflected the retention by the merchant intermediary of considerable influence over the organization of production. And it was aided technically in the face of greater demands for center-city space by innovations such as the cast iron frame (1848) and the elevator (1853).¹⁰⁹ Warehousing dominated central city land uses during the second stage, while large factories—less bound by forces of agglomeration than were their smaller brethren—tended to locate more loosely around the edges of the waterfront and business district, even on the edges of the built-up area in rapidly expanding Chicago, for example.¹¹⁰ After about 1870 the dominance of warehousing began to be challenged, indirectly, by the increasing organization of production on a large scale in factories and directly, by competition for center-city land from retailing and financial-administrative-professional functions.¹¹¹ Yet manufacturing and warehousing remained the dominant central city land uses up to 1900.

The several factors (by no means exhaustive) just enumerated, operating to centralize production and circulation in cities and within cities, probably exerted their force on location in the order given, although this is an empirical question for which data are not available. It would be inappropriate, however, to indulge in the search for first causes in this sort of factorial analysis, since such pursuits invariably lead at some point to arguing in a circle. The first point is that we necessarily find an array of factors, of greater or lesser importance, making up a distinct urban-industrial growth ensemble.¹¹² Second, within the factorial array, or growth ensemble, we find that the changing conditions of *production* are more important than exchange factors in accounting for the concentration effect, in contrast to the suppositions of neoclassical urban theorists. The old forces were rapidly giving way, making for relatively dispersed location of production and circulation—especially the role of the independent artisan, master, and farm family producing and selling their own goods typically within their own homes. In their place appeared locational considerations of the industrial age, such as availability of wage labor and the needs of larger workshops and factories in the social division of labor and growing market penetration. Finally, at a level deeper than even these production and location factors, we can identify a structural shift from one mode of production to another—petty commodity production to capitalist industrialization—marked by a fundamental alteration of the social rela-

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The Formation of the Slums

Around and through the central business district and nearby manufacturing zones of the industrial city were crowded the residential districts of the working class: the classic "slums" of the nineteenth century.¹¹³ Before one can discuss the specific factors operating on the location of working-class housing, however, it is necessary to consider the preconditions for a "residential location decision" to be made at all. In the first place, working-class housing became separate from the place of production in a fashion quite unlike that of the old mercantile city or the early mill towns. Although the distance separating home and work was not great, the social division in people's lives between production and consumption, working and living, was to have profound implications.¹¹⁴ James Vance comments perceptively that, "Probably few events in economic history have had more fundamental effect on the shape of the city than the physical parting of the residence from the work place."¹¹⁵

The separation of the work place from the home came about in the first instance because of the growing control over the means of production secured by the capitalist class and, second, because of the reorganization of the labor process under the factory and workshop system. This not only ended home-based manufacture by the independent artisan, small master, or cottager, but created as its opposite the class of wage laborers. In the era of the mill towns, this process had not gone much beyond the immediate employees of the mills, and there was not yet a large body of free laborers. The resulting scarcity of labor made it mandatory for the mill owners to provide housing, which was in most cases both solid and oriented directly to production.

By the 1840s a fundamental change had taken place: the workers were cut free by capital to fend for themselves in the matter of housing.¹¹⁶ Along with a growing free market in labor came a generalized free market in working-class housing. A most instructive case of this can be found in the first new, large-scale mill town established in New England in the industrial stage of accumulation: Holyoke (1847). The Hadley Falls Company, which founded Holyoke, was principally a speculator-developer corporation dealing in water and land, not production. The mills were to be built by lessees and housing was to be provided by private builders. The company thus had as its interest the appropriation of rent and, because of the inflated land values created by expectation of rents, the company was able to create an artificial scarcity of land. Poor Irish workers who needed work crowded together to make do, with the result that housing conditions soon

developments took place within a definite space which the dominant classes had abandoned to the workers in their flight to the suburban periphery. In the process they had created—again like the British bourgeoisie—a “vast terra incognita,” as Gareth Stedman Jones has described it, which they dubbed “the slum.”¹²⁷ Thereafter, whenever the dominant classes heard rumblings from below, they had to reenter this strange land to discover its secrets and its evils—from bad housing to bad politics—to be expunged.¹²⁸

The question remains, however, as to why the American working class crowded near the city center instead of, for example, taking up residence on the fringes of the city, as was the South American pattern. To begin with, given a preexisting locus of employment at the center, immigrants would tend to locate nearby, since workers at this time could not afford to commute from any distance because of low wages, long and often irregular hours, or the need to be close by for casual employment opportunities.¹²⁹ These criteria, of course, presuppose a generally low level of social production which cannot support high wages, short hours, and a far-flung commuting system. But this explanation gives absolute priority to industrial location before residential location; it does not hold up, since, as we noted previously, industries were attracted to cities as sources of labor. Clearly, the location of production and of working-class residence developed symbiotically, once the pattern of centrality was established. The origin of the pattern is thus strongly historical, probably owing to the previously developed focus of the port and the tendency for new arrivals and people seeking employment to congregate near it.

Furthermore, certain relations of class reinforced the locational pattern emerging in production and circulation. On the one hand, the dominant classes did not hold their ground in the city center, but fled to the periphery for a variety of reasons (to be taken up below). From precapitalist institutions and culture there was no resistance (as in so many European cities) to the urban center's wholesale transformation in the pursuit of mammon, and its necessary accompaniment of laboring people. On the other hand, this escape meant that the working class was effectively trapped in space, prevented from effectively demanding peripheral housing by the competition of wealthier people.¹³⁰ More important, the workers' relative freedom to create their own political and cultural life in the slums resulted in a support network which attracted working people and which many would not voluntarily abandon.¹³¹ This, too, must have acted as a force for reproducing the spatial structure of the industrial city.

The Beginning of Residential Suburbanization

The geography of the classic nineteenth-century industrial city involved, on the one side, an implosive bringing together of production, circulation,

and the labor force, while, from the other, it involved a radical separation of people and activities in space. This separation proceeded especially along the lines of the division of labor in production, between production and circulation, work place and living place, and among classes and national cultures. As in a centrifuge, this separation of the urban solution was led by its outermost elements, the cream seeking the top. The suburbs were launched at the pole opposite from the slums and the central business district, but as part of the same dialectic of urbanization under capitalism.

The suburban movement began in the 1830s, became a major force in the leading cities during the 1840s and 1850s, and was thoroughly generalized after the Civil War.¹³² The "suburban solution" was chiefly a residential phenomenon, highly restricted in numbers and income, which retained its focus on the highly centralized industrial city. It represented the "solution" of the dominant classes to the emergent contradictions of capitalist production as it took root firmly in the urban landscape, manifest in the areas known as the central business district and the slums. And, again, this movement cannot be imagined without the simultaneous revolution in the mode of production which picked up speed so quickly from 1830 to 1860 and increasingly dominated urbanization thereafter.

The big bourgeoisie led the suburban movement by commuting by rail and ferry. Behind the truly wealthy, on the fringes of the built-up area of the city, came the "middle classes" of small employers, merchants, lawyers, and the like; and even nearer the center were the homes of some skilled workers, clerks, shopkeepers, etc.¹³³ Boston was the leader in railroad commuting, and it has been calculated that by 1848 some twenty percent of Boston's businessmen already traveled to work daily on the steam railroads, and perhaps the majority of them did so by the early 1850s.¹³⁴ In New York and Philadelphia greater opposition to steam engines operating on city streets (often promoted by omnibus interests) meant that the omnibus retained its leading position in commuting.¹³⁵ In New York, ferries also carried many people to work from Brooklyn and New Jersey. The expense and time put this commuting beyond the reach of the vast majority. But, among the dominant classes, the journey to work began to lengthen rapidly, as has been shown for Philadelphia merchants and bank presidents between 1829 and 1860, and New York attorneys between 1825 and 1915; the key period for the latter was from 1835 to 1845.¹³⁶ Qualitative accounts of the suburban trend are also common from mid-century onward. For example:

The movement of the affluent toward Germantown in Philadelphia and Chesnut Hill near Boston was duplicated in other metropolitan areas. In San Francisco, the city's

bankers, merchants, and the like, moved to the hillsides and built homes on the hillsides. And, after the Civil War, on San Francisco, the competition for the hillsides was as "steambaths" in Brooklyn, New York, being as early as the 1840s. In areas were still in the Civil War, but a tendency to the periphery was the merchant class, the hilltops crowded cities in the year.¹³⁷

The early phase of the omnibus, was soon replaced in the 1850s. The streetcar and other major cities associated with transportation's felicitous phrase each of the three kinds. In New York City the omnibus in 1853 to thirty-six miles urbanization, we may see obvious advantages until the 1850s?"¹⁴¹ The question in terms of conflict, and accumulation of, streetcar suburbanization began to gel very much had altogether triumphed in 1890, as was previously

On the demand for an alternative explanation of the rich people's desire to be not concerned with the city are."¹⁴²

Several factors came into play there must be the effect of the home, with the

bankers, merchants, and doctors moved away from the downtown areas between 1850 and 1860 and put their new homes on the heights of Fern (Nob) Hill and Russian Hills. And, after the establishment of steamboat and ferry service on San Francisco Bay, Oakland and Alameda joined the competition for citizens and quickly garnered a reputation as "steamboat suburbs." Because of the competition from Brooklyn, newspaper editors in New York were complaining as early as 1849 of "the desertion of the city by its men of wealth." In Chicago, most of the high-grade residential areas were still very near the center at the time of the Civil War, but a tendency for the fashionable to move toward the periphery was already apparent. In almost every large city, the merchant princes and millionaires were searching for the hilltops and shore lands to build country estates; crowded cities offered fewer attractions with every passing year.¹³⁷

The early phase of residential separation, particularly that based on the omnibus, was soon overshadowed by the horse-drawn streetcar in the 1850s. The streetcar mania hit New York, then Boston, then Philadelphia and other major cities in the late 1850s.¹³⁸ The streetcars have justly been associated with transforming urban morphology, creating, in Sam Warner's felicitous phrase, "streetcar suburbs." This process accelerated in each of the three Kuznets cycles of the second stage of accumulation.¹³⁹ In New York City the number of passengers increased from seven million in 1853 to thirty-six million by 1860.¹⁴⁰ Given its revolutionary impact on urbanization, we may ask, with George Rogers Taylor, "Why, despite the obvious advantages of the streetcar, was its general adoption postponed until the 1850s?"¹⁴¹ Taylor tries, rather unsuccessfully, to answer his own question in terms of conservatism, corruption, and the like, but we should, rather, look to the fundamental forces of capitalist production, social conflict, and accumulation for the origins of the demand for, and supply of, streetcar suburbanization, recognizing that the urban-industrial system began to gel very quickly in the period between 1835 and 1855 and had altogether triumphed over preindustrial capitalist modes of life by 1890, as was previously argued.

On the demand side of the suburban equation we must provide an alternative explanation to the purely a priori assumption found in Alonso's neoclassical model of location, which says that people (particularly rich people) desire space for its own sake. Or, as Alonso puts it, "We are not concerned with how these tastes are formed, but simply with what they are."¹⁴²

Several factors can be identified to fill this analytical void. First of all, there must be the economic possibility of separating the work place and the home, with the consequent need to commute. This presumes, at the

least, a certain level of wealth, but this factor was probably only significant for those among the skilled trades and petty bourgeoisie taking up the rear of the suburban vanguard.¹⁴³ The most important development for the big bourgeoisie was the diminished need to supervise personally the work process and to be on call at the work place.¹⁴⁴ The other side of this freedom for the elite was the growing role of hierarchical forms of management characteristic of capitalist industry.¹⁴⁵

A second factor inducing suburban escape was that the areas of production at the center came to be regarded as undesirable places in which to live. The usual things identified among the "disamenities" of the industrial city were traffic, noise, dirty air, filthy grounds, and visual ugliness of the factory districts. Undoubtedly, the physical changes commensurate with advancing industrialization (such as coal burning, steam railroads—witness the fear of the first commuter engines on city streets) and massive construction projects could alone account for a desire to put space between oneself and the center of productive activity.

But the negative aspects of production included more than physical affronts. Surpassing these were the kinds of social relations people—even those near the top—experienced in their work role: competition, exploitation, antagonism to—and degradation of—other human beings. Furthermore, the alienating, exploitative relations of production took on a tangible existence in the form of the working class and its degraded living districts. An increasingly fluid, unruly, and possibly threatening proletariat had already become a concern of the dominant classes by the 1830s, and they had sought to deal with this contradiction of capitalist life in a variety of ways, such as penitentiaries and professional police forces.¹⁴⁶ The threatening behavior of workers appeared in various forms, from petty crimes to riots, such as those hitting Boston from 1835 to 1836, Philadelphia from 1834 to 1849, and New York in 1863.¹⁴⁷ Perhaps more threatening than overt misbehavior by workers was the biological result of their degraded concentration. The appearance of the classic industrial slums in Europe and America also marked the major era of the cholera epidemic.¹⁴⁸

A most direct "solution" to these problems was to put space between oneself and the workers. This removal was in large part a "blowout" from the center similar to the present-day rush to escape black immigration; and, to continue the parallel, nineteenth-century class antagonism was joined by no small measure of racism against the foreign born. Streetcar suburbs joined the rise of American nativism and the politics of the Know-Nothing Party in the 1850s as answers to the foreign peril.¹⁴⁹

The choice of spatial separation as a solution to class contradictions does not, of course, recommend itself uniquely on all counts. Many instances can be found in history where the rich and the poor have cohabit-

ed districts or even built up a reputation for nineteenth-century suburban life. But considerable merit. But considerable response, so it would be more to do with changing and mobility of the working class and social controls on the part of the state of foreigners to the United States. to the power of conventional wisdom, certainly the clichés of genteel life among Americans. The relative triumph of petty bourgeoisie over feudal antecedents in the second half of the nineteenth century. The leading innovators of the new social order and juvenile homes—a direct result of individual behavior. Quite largely in management of the towns which regularly reflected an important aspect of the new social life. Indeed, the new locations, near the city center, as industrialism advanced, it was the city, the dominant force.

A fourth factor driving the process was the truism that land values rose with industrialization. Concomitantly, the interests of production and the land market is by no means even a necessary process in the United States with the pressures for the new. One important cause of the advanced state of management of industrialization. So the process, especially in matters of production, operated in the land market, drove up values, few people had money for some higher prices and rapid turnover—value would be—driven.

A similar and compellingly attractive one was

ed districts or even buildings. Fear of contagion is one standard explanation for nineteenth-century suburbanization, and one not without considerable merit. But contagion has not always generated this particular response, so it would appear more likely that the demand for space had more to do with changing class relations; the increased size, antagonism, and mobility of the working class; and a fear that sufficient alternative social controls on threatening behaviors were lacking. The massive influx of foreigners to the United States may partially account for uncertainty as to the power of conventional social controls on the laboring classes. Certainly the clichés of great spatial mobility and lack of hierarchical deference among Americans have some weight, particularly in light of the relative triumph of petty commodity democracy and the lack of strong feudal antecedents in this country. It is not surprising that, during the first half of the nineteenth century, the American bourgeoisie were among the leading innovators of "modern" asylums—penitentiaries, insane asylums, and juvenile homes—as methods of social control and of inculcating "correct" individual behavior.¹⁵⁰ Furthermore, spatial removal had figured quite largely in managing deviancy in the early history of the U.S. colonial towns which regularly banished miscreants from their locale, while an important aspect of the later asylums was removal from normal urban social life. Indeed, the first asylums were typically founded in suburban locations, near the city but overlooking the countryside.¹⁵¹ Since, as industrialism advanced, it was no longer possible to banish a few deviants from the city, the dominant classes chose instead to remove themselves.

A fourth factor driving the dominant classes from the central city is the truism that land values were rising steeply, making central locations dearer. Concomitantly, land uses were being converted very rapidly in the interests of production and housing the workers.¹⁵² Yet, the operation of the land market is by no means a sufficient cause for suburbanization, nor even a necessary process. As mentioned previously, the dominant classes in the United States were singularly unwilling or unsuccessful in resisting the pressures for the concentration of production in the industrial city. One important cause that may be adduced for this is the remarkably advanced state of market relations in the U.S., even before the age of industrialization. So thorough was the commercialization of society, especially in matters of private property in land, that almost no restraints operated in the land market.¹⁵³ As a result, open bidding for urban land drove up values, few people were willing to resist the temptation to make money for some higher cause or tradition, and the consequent high prices and rapid turnover—which created insecurity as to who tomorrow's neighbors would be—drove out the unwilling.

A similar and complementary force making the suburban move a financially attractive one was the rising property tax rate necessary to support

urban public services. And with the advent of rapid urbanization and, more so, with urban industrialization, the infrastructural support demanded of city governments grew very rapidly in areas such as water supply, sewerage, street maintenance and gas lighting. These expenditures increased markedly in the industrial stage of accumulation.¹⁵⁴ Nonetheless, suburbanites wanted certain public services for their homes. Around mid-century in Philadelphia, "numerous districts and borough governments had been created to offer, for example, rudimentary urban services to the early suburbanites."¹⁵⁵ Unlike the twentieth-century situation, the central cities continued to annex these outlying areas after they had built up, often because the city could offer better services.

A sixth aspect of the suburban lure was what Warner calls the "pull of the rural ideal."¹⁵⁶ This apparently simple "ideal," however, involves a more subtle ideological response to urban industrialism bearing deeper consideration than Warner gives it. For what was involved here was no longer a true agrarian idealism of the Jeffersonian type, characteristic of the age of petty commodity production; but, rather, as Peter Schmitt has shown, a shift to an *arcadian* ideal, more amenable to the realities of urban industrial life. "As a place, it lay somewhere on the urban fringe, easily accessible and mildly wild."¹⁵⁷ Beginning rather suddenly in the 1830s and 1840s, the bourgeoisie sought the solicitude of nature in the landscape for their recreation, home life, and literary fancy, and this movement drew more adherents and became more vulgarized by its proponents as it trickled down to the masses over the course of the nineteenth and early twentieth centuries.¹⁵⁸

A similar process can be observed in the advance of suburbanization itself, as country seats gave way (by the post-Civil War era) to "garden suburbs," with their studied emulation of winding countryside, and thence to the generalization of the detached frame house, set on a small lot. As Sam Warner has observed of the late nineteenth-century Boston suburbs, only the top five percent of the populace "got the setting that the ideology of the rural ideal demanded," while the bulk of the "lower middle-class" migrants to the inner suburbs had to settle for "cramped suburban streets of three-deckers [which] stand as an ugly joke against their models: the picturesque houses set on garden lots."¹⁵⁹

The great ideologists of urban landscaping of the Romantic and arcadian style were Andrew Jackson Downing, who died in 1852, and Frederick Law Olmsted, Sr., whose career spanned the whole of the industrial stage of accumulation. Their ideas concerning nature's relation to social problems epitomized the bourgeois goals of the "rural ideal." Downing believed in the power of "art, Romantic nature, and beauty in refining and stabilizing the disorderly and individualistic society of Jacksonian America." What Downing admitted to valuing most highly was "the love of

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order, the obedience to law, the security and repose of society, the love of home," things which appeared sorely lacking in the 1830s and 1840s.¹⁶⁰

Olmsted's argument for city parks was that they would offer open and peaceful rural vistas (though highly stylized ones) which were to be "suitable for the distinctly rural recreation of people, as a relief and counterpoise to the urban conditions of their ordinary life."¹⁶¹ Olmsted saw parks as a source of relief from the exhaustion, irritation, and depression of contemporary urban life, a problem chiefly afflicting, in his mind, the "middle class," but extending to other classes as well. Moreover, parks could function to bring the various classes of people into contact in a sort of "democratic community." Parks were, therefore, another kind of "reintervention" by capital, a new form of mediation of class relations by means of landscape evocations of rural life and a relation to nature, which capitalism had overthrown. Capital would readmit, by the back door, what it had cast out by the front: rural life, a sense of community, economic equality, an unalienated relation to nature, etc.

While sylvan parks in the midst of the city provided a direct contrast to urban life, suburbia represented an even more satisfying form of reconciliation of people to nature, a new form of "middle landscape" between town and country. Olmsted extolled the suburbs for their balance of the two, a balance which allowed "the more intelligent and more fortunate classes to seek the special charms and substantial advantages of rural life" in their homes, without any "sacrifices of urban conveniences."¹⁶² Olmsted and Vaux designed Riverside, Chicago's first garden suburb, in 1868. As Olmsted makes eminently clear, this middle landscape was, for the time being, the province of the dominant classes.

Rural or arcadian ideals have played an important role in American life, but we must be cautious not to divorce these ideas from the material relations of social class and the mode of production, setting them up as the "cause" of phenomena such as suburbanization and the parks movement. Among the favored members of society with the power to turn their ideas into material forces, the ideal of social harmony through landscape manipulation and through consumption and recreation, rather than production, was the motivation to create urban parks and Romantic suburbs. The parallels to the creation of the famous eighteenth-century English country estates by a new capitalist agrarian gentry are striking. We can do no better than to quote Raymond Williams' perceptive commentary on the latter:

It was that kind of confidence, to make Nature move to an arranged design, that was the real invention of the landlords. *And we cannot, then, separate their decorative from their productive arts; this new, self-conscious observer was very specifically the self-conscious owner. The clearing of parks*

as "Arcadian" prospects depended on the completed system of exploitation of the agricultural and genuinely pastoral lands beyond the park boundaries. There, too, an order was being imposed: social and economic, but also physical. The mathematical grids of the enclosure awards, with their straight hedges and straight roads, are contemporary with the natural curves and scatterings of the park scenery. *And yet they are related parts of the same process—superficially opposed in taste, but only because in the one case the land is being organized for production, where tenants and labourers will work, while in the other case it is being organized for consumption—the view, the ordered proprietary repose, the prospects.* Indeed, it can be said of these eighteenth-century, arranged landscapes not only, as is just, that this was the high point of agrarian bourgeois art, but that they succeeded in creating the land below their windows and terraces what Jonson at Penshurst had ideally imagined: *a rural landscape emptied of rural labour and of labourers; a sylvan and watery prospect, with a hundred analogies in neo-pastoral painting and poetry, from which the facts of production had been banished.* ... But it is a commanding prospect that is at the same time a triumph of "unspoiled" nature; that is the achievement: *an effective and still imposing mystification.*¹⁶³ [Emphasis added.]

In exactly the same fashion the new urban-industrial city of American capitalism was laid out predominantly in mathematical grids organized for production and profit. It was here that the primary relation to nature, the labor process, was concentrated. The sylvan parks and rural homesteads created by the industrial bourgeoisie were meant to banish the ugly facts of the urban-capitalist production process from the scene in the same way that the rural capitalist production process was eliminated by the English landlords. Here, in the realm of consumption, a secondary relation to nature, to one's fellow men—in short to living—could be established and idealized in an effort to compensate for the less-than ideal condition of "ordinary life" in the cities. In the suburbs, the dominant classes could escape the debased social relations and environment of the primary production process as well as the working classes (who personified this debasement) and could try to create an enclave of beauty and harmony—all with the benefit of surplus value extracted from the laborers. The suburbs, then, were in a fundamental sense an "imposing mystification," and they have remained so ever since.

The suburban solution also offered the home and family, in addition to its landscape, a place of refuge and a mystification of human relationships. The home was something to be owned as private property, the rock on which one built a life of respectable domesticity and consumption. While all of this came easily to the big bourgeoisie, it was a matter of desperate earnestness to the petty bourgeoisie and other members of the

"middle class" strikers' study of Chicago's tensions.¹⁶⁴ These tensions, a mixture of the city and the country, of this tension in the sphere surrounding the middle-class lifestyle, the "suburban solution" to life, that the nuclear family, that the nuclear defense against the two-child family in the fundamental change of the nineteenth-century rise of a "cult of domesticity" of the household.¹⁶⁵

A final factor to lengthening commutes, only must people live in a central city, but the required not only fundamentally, the cost of overcapitalization, the process of private environment. The dependent on the agricultural industrial revolution, first time in the Kew Gardens, ever-expanding suburban transportation, and gigantic waves of fixity toward the end of the century, which appeared the establishment of the booms of the 1830s took the country to the 1850s.¹⁶⁷ In answer to the idea of the suburban apparently reached

Nor were there overinvestment in construction, land utilities all waxed and waned. Homer Hoyt, for

"middle class" striving for respectability, as suggested by Sennett in his study of Chicago's Hyde Park in the post-Civil War era of growing class tensions.¹⁶⁴ These people stood in terror of sinking back down into the mire of the city and the working class. Their family lives show the marks of this tension in the fragmentation of social life and repressive atmosphere surrounding them. Sennett's unflattering conclusions about these middle-class lifestyles speak boldly to the contradictions of this aspect of the "suburban solution" and to the pervasive myths that family life is social life, that the nuclear family is a means of upward mobility (rather than a defense against downward mobility), and that the image of the happy, two-child family in the suburbs is reliable. Although precise timing of this fundamental change in the role of the family is beyond our scope here, nineteenth-century industrialization was generally accompanied by the rise of a "cult of domesticity" and a decline in the previous productive role of the household.¹⁶⁵

A final factor to be considered in relation to suburbanization and the lengthening commuter transport network is the *supply* of urban space. Not only must people have wanted to put space between themselves and the central city, but they must have had the means by which to do so. This required not only the individual ability to pay for transport, but, more fundamentally, the *social* ability to support a far-flung urban system (since the cost of overcoming distance is not insignificant) and a successful process of private and state investment in the fixed capital of the built environment. These necessary conditions of suburbanization were dependent on the advances in capital accumulation made possible by the industrial revolution and thus were fulfilled on a significant scale for the first time in the Kuznets cycles of 1822-1842 and 1843-1859, and on an ever-expanding scale after that. In particular, construction of housing, transportation, and utilities depended on overaccumulation and the gigantic waves of fixed capital investment which duly put in their appearance toward the end of each "Kuznets."¹⁶⁶ Looking only at the transit revolution, which appears to have "created" suburbanization, we see that the establishment of omnibus companies coincides with the investment booms of the 1830s and early 1850s, and that the horse-drawn streetcar took the country by storm during the fixed capital investment cycle of the 1850s.¹⁶⁷ In answer to George Rogers Taylor's question, then, it was not the idea of the streetcar that was lacking, but the money for it, which apparently reached sums that would do justice to modern freeways.¹⁶⁸

Nor were streetcars alone in their cyclic pattern of investment (and overinvestment) in creating the suburban built environment. Residential construction, land values, speculative subdividing, and outlays for public utilities all waxed and waned with the cycles of capital accumulation. Homer Hoyt, for Chicago, and Sam Warner, for Boston, have documented

the way in which nineteenth-century urban expansion took place through a "growth coalition" of all the major participants on the supply side, including the local governments, private utilities, landowners, real estate promoters, subdividers, investors, brokers, and builders.¹⁶⁹

What is significant, but normally overlooked in discussions of suburbanization prior to the post-World War II era, is that the supply of urban infrastructure was, to a degree, independent of demand and instrumental in creating some of its own demand through overexpansion and submarginal cost pricing. The urban center and the economy in general, then, actually subsidized suburbanization.¹⁷⁰

There is evidence of overinvestment in suburbanization and transit systems in each of the Kuznets cycles. For example, Taylor reports that by the early 1850s "... the railroad managements found that, with growing expenses, the commuter passengers did not cover their added cost at the low season ticket rates. Despite vigorous public protests, the railroads substantially increased commuter fares."¹⁷¹ This suggests, at least, that commuter railroad lines had been overbuilt in the 1830s and 1850s. Omnibuses also were overproduced in the 1850s, with hypercompetition forcing down rates thereafter.¹⁷² The streetcars appear to have been profitable investments in the 1850s, but they nonetheless created demand by charging flat-rate fares instead of marginal cost and were occasionally extended beyond the area of settlement in hopes of creating demand for outlying properties held by the company.¹⁷³ This became much worse after the Civil War, when they were built in an unremunerative fashion well in advance of building activity and had to retrench during the depression of 1873-1877. In the next building cycle, housing appears to have caught up with the horse-car lines again, at a distance of about another mile or more from the city center; but even as this was occurring, a frantic search was under way for a faster mode of transit. This search included experimentation with cable cars and finally came up with the electric streetcar. Thereafter, in the 1890s and 1900s, electric streetcar lines were once again overextended beyond the limits of settlement and financial soundness.¹⁷⁴ The point is that supply, pushed by overaccumulating capital, may outstrip demand and even create its own demand in ways not appreciated by neoclassical theorists. Demand-only theories, such as those of Alonso and Muth, are not sufficient to account for the *building* of real urban space, as opposed to a featureless plain. Again, it must be emphasized that capital, in the urbanization process, works at both ends at once.

Spatial Specialization

The third basic movement encompassed by the rearrangement of urban structure in the industrial stage of accumulation was functional and social segregation, or spatial specialization. Some of the essentials of this move-

ment have already presupposed in the and the lengthening railroad, and street has a finer grain processes of spatial ed today, let alone

To begin with, industrial cities were among different manufacturing district significance greater need to advanced in the nineteenth production and a working-class district capital in expanding city sales created a manufacturing district cities ripened within declining years, the and industrial decline and others have substituted its modern

The major spatial working classes had subdivision went north by the polynucleated. It was also being hierarchy of labor production encouraged archical gradation controlling the work cumstances with among other things residence. And this to be encouraged real estate entrepreneuriality in reproducing standards of living

We know that much more complex but we do not have looked.¹⁸⁰ One over

ment have already been touched upon. Functional land-use separation is presupposed in the growing separation of residential and industrial areas and the lengthening journey to work, mediated by the omnibus, steam railroad, and streetcar modes of rapid transit. But this areal specialization has a finer grain than we have yet given it. Unfortunately, the detailed processes of spatial separation are very poorly understood or documented today, let alone for the nineteenth century. *and thinking of spatial style*

To begin with, the concentration of production and circulation in the industrial cities was accompanied by an increasing social division of labor among different manufacturers. As mentioned previously, the warehousing district signified a rather low development of this division and a greater need to agglomerate as a result. True factory production, as it evolved in the nineteenth century, created a more dispersed pattern of production and a partial polynucleation of employment and attendant working-class districts.¹⁷⁵ And as the century wore on, accumulation of capital in expanding financial institutions and concentration of commodity sales created a more marked division between financial, retailing and manufacturing districts within the general CBD.¹⁷⁶ While all these tendencies ripened within the industrial stage of accumulation, especially in its declining years, the qualitative turning point in the character of the CBD and industrial decentralization did not come in the 1870s, as David Ward and others have supposed, but rather in the 1890s, when capitalism entered its modern corporate stage.¹⁷⁷

The major spatial division between the residences of the dominant and working classes has already been discussed, but the process of social subdivision went much farther. The working class was divided within itself by the polynucleation of the social division of labor, as previously noted. It was also being divided in another way, by the detailed division and hierarchy of labor within the work place. The capitalist organization of production encouraged the growth of job specialization and of hierarchical gradations in industry for purposes of increasing output and controlling the workers.¹⁷⁸ Workers finding themselves in differing circumstances with respect to income, skills, authority, and job location, among other things, might be expected to seek out differing places of residence. And this residential differentiation, it has been argued, is likely to be encouraged for reasons of profit making by financial investors and real estate entrepreneurs in the land/housing market, and for its functionality in reproducing a labor force with appropriate schooling, behavior, standards of living, and so forth.¹⁷⁹

We know that the residential pattern of the working-class districts was much more complex than the general and ideological term *slum* connotes; but we do not have much documentation as to how the pattern actually looked.¹⁸⁰ One overworked division is that between the "native" American

workers and recent immigrants. But ethnic districts were not so clearly defined as the idea of the classic ghetto would lead one to believe; immigrants were often quite dispersed and well integrated into existing residential neighborhoods.¹⁸¹ So far as immigrants were divided into subgroups, it was probably more likely to be by job specialization, not by culture.¹⁸² Then, too, immigrants were likely to make up the bulk of unskilled laborers, whose focus of work was different from that of skilled craftspeople.¹⁸³

Culture per se, of course, came into play in relation to the dynamics of employment. Divisive forces came decisively into play from the 1830s and 1850s.¹⁸⁴ As more and more Irish poured into the country and were used to undermine the position of existing mill and handicraft workers, racial and religious tensions were inflamed. This process has been investigated in detail in the dramatic instance of the 1844 Kensington weavers riots in Philadelphia.¹⁸⁵

Workers were an important force in the nativist movement of the 1840s and 1850s.¹⁸⁶ The early part of the industrial stage of accumulation stands out as one of considerable ethnic tension, not equaled again until the opening of the modern corporate stage of accumulation in the 1890s, for reasons that do not depend on an inherent tendency to racial antagonism whenever new cultural groups mix—if, indeed, the cause of immigration can itself be separated from the process of capital accumulation on a world scale.

Labor was also being redivided along broad, new lines of skilled and unskilled workers, as illustrated by the radically different type of union organizations that arose out of the defeats of the 1840s.¹⁸⁷ Residential differentiation in the 1850s appears to reflect the growing schism between the mass of the unskilled and members of the new crafts unions, who were again winning certain gains. Means of transport came within reach of some craftspeople as fares fell, wages rose, and working hours became limited.¹⁸⁸ Unskilled workers were more closely tied to the CBD in terms of the division of labor, variety of employments, long work hours, low wages, and irregularity of tenure.

Finally, other kinds of functionally discrete land uses, such as urban parklands and railway facilities, came into being or were expanded dramatically during the second half of the nineteenth century. Each of these, too, has its distinctive history and relationship to the evolution of industrial capitalism. Developments with this great an impact on urban structure cannot simply have arisen from the personal achievement of the inventor of the steam engine or the creative genius of landscape architects, though these played their part. As has been argued throughout this essay, the evolution of the capitalist mode of production must constantly be taken into account as the dominant force making modern urban-

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Conclusion: Suburbanization and the Twentieth Century

Certain characteristics of modern American suburbanization were firmly established during the second stage of accumulation: the preference of the dominant classes for the urban periphery; the ideal of blending the country and the city; the lengthening journey to work and commutation by rapid transit; the escape from the disamenities of production, the working class, and the foreign born; the search for lower land values and taxes at the periphery; the fragmented, speculative, and dramatically cyclic extension and hyperextension of the urban fringe; and so forth. Some of these tendencies began in the 1830s, or perhaps somewhat earlier, which is understandable since capitalist development and the growth of industry were already advancing briskly during the petty commodity stage of accumulation. Some others, such as the detached house or the Romantic suburb, developed significantly only after the Civil War. Other, lesser aspects of the suburban trend, such as rapid peripheral growth, growth outside central city political boundaries, and declining density gradients were certainly well established in the first stage. More quantitative research needs to be done in several areas in order to refine our understanding of changing urban structure in the nineteenth century and to make possible a more sophisticated specification of the relations between capitalist development and urban evolution in the United States. But existing evidence points overwhelmingly to the period from 1830 to 1860, pivoting on the depression of 1839-1842, as the time when suburbanization was launched in America.

The era centering around 1840 marked a dramatic hastening of capitalist industrialization which deserves to be recognized as a qualitative shift in the mode of production from a domination by petty commodity production to domination by modern industry. Coinciding with this came the change from an urbanism made up of mill towns and mercantile ports to one characterized by the classic industrial city. Focussing on this pivotal era allows us to see more clearly that the pattern of urbanization in this country has not been a smooth evolution to the conditions of the present, but has been marked by major transformations from one kind of city to another. At the same time it shows that the roots of the present suburban-dominated forms of urbanization go very deeply, even to the character of capitalism itself. For it is the capitalist industrial revolution gaining momentum and entering the big cities after 1840 which induces a suburban movement that is recognizably modern.

Suburbanization cannot be understood in terms of consumer demand

theory in which people's social relations are reduced to autonomous "tastes" for space arising in a vacuum, without reference to what is happening in the central city, nor in ignorance of the process by which the city is actually built. Indeed, this grounds itself in the ideology of suburbia, the place from which production is banished; the lower orders of society, excluded; and harmony with nature and one's fellow man, presumed to reign supreme. What is required is a theory which is dialectical and structural, and one which situates capitalist production, classes, and accumulation at the center of a complex web of unfolding economic and social relationships.

Suburbanization was chosen less for itself than produced by its antipodes: the concentration of production, the concentration of the working class, the degraded relations to nature in the work place, the investment process in fixed capital (flowing, no doubt, through the central business district), and so forth. In turn, the concentration of economic life in the center of industrial cities is to be explained only in small part by a presumed necessity of commodity exchange to pass through the city center; it presupposes a radical transformation in the ownership of the means of production in city and country, in the way production is organized, and limits to working-class mobility, among other things. And finally the real history of this transformation, and the urbanism it begot, is much less idyllic than the harmonious order of Von Thünen-type location models would have us believe.

Urbanization and suburbanization have, of course, come a long way from the age of the classic nineteenth-century industrial city. This story goes beyond the purposes at hand.¹⁸⁹ Briefly, the most significant reorientation of urban structure occurred as a result of the profound transformation to modern corporate capitalism around the turn of this century. The tumult and reforms of the Progressive era focussed, to a large extent, on the problems of the industrial city of the second stage of accumulation and the effort to redirect city growth along the new lines of the twentieth-century city. This meant, in contrast to the nineteenth century, things such as a radical decentralization and multinucleation of manufacturing, retailing, and wholesaling; more spatially extensive configurations made possible by the automobile and truck; and the movement of the working class, especially the growing strata of white-collar workers, to the suburbs. It also has meant permanent political separation from the central city of ever more numerous suburban jurisdictions; the breakdown of the grid street system and a generalization of the curvilinear pattern; the entry of large-scale mortgage finance into urban-suburban investment; and the direct support of the federal government for suburbanization. And it has included mass consumption of consumer durables; mass homeownership; greater community-level collective consumption; and a qualitative jump in

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the degree of discontinuous "sprawl-type" development. The central business district has, at the same time, shifted almost exclusively to office buildings devoted to finance capital, corporate administration, state functions, and professional services. Rents have continued to go up at the center, while the density gradient of the city has continued to decline. But, unlike the nineteenth century, the suburban "ring" has increasingly become the focus of productive life, and the suburban explosion has proceeded so rapidly, the "zone of transition" around the central business district has given way to something nearer to a zone of abandonment.

The sheer volume of suburbanization since World War II has fooled many people into believing that it represented an entirely new phenomenon. But the continuity with the past is strong. It goes back even to the early nineteenth century, when the capitalist development process began to force rapid urbanization, new patterns of production, and new divisions of social life; and when the American bourgeois patterns of affection for the urban periphery were established, putting space between themselves and the city's problems and bringing rural landscapes into the city.

1. William Alonso, *Location and Land Use*, (Cambridge: Harvard University Press, 1964); Richard Muth, *Cities and Housing* (Chicago: University of Chicago Press, 1969); Edwin Mills, *Studies in the Structure of the Urban Economy* (Baltimore: The Johns Hopkins University Press, 1972).
2. David Harvey, *Social Justice and the City* (London: Edward Arnold, 1973), p. 168.
3. Richard Walker, "Urban Ground Rent: Building a New Conceptual Framework," *Antipode* 6, no. 1 (1974): 51-58; idem, "Contentious Issues in Marxian Value and Rent Theory: A Second and Longer Look," *Antipode* 7, no. 1 (1975): 31-54.
4. Alonso, *Location and Land Use*, p. 18. For a systematic critique of neoclassical consumer theory, see Herbert Gintis, "Consumer Behavior and the Concept of Sovereignty: Explanations of Social Decay," *American Economic Review* 62, no. 2 (1972): 267-78.
5. Edward J. Nell, "Economics: The Revival of Political Economy," in *Ideology in Social Science*, ed. Robin Blackburn (London: Fontana, 1972), pp. 76-95.
6. See the critical essays in E. K. Hunt and Jesse G. Schwartz, eds., *A Critique of Economic Theory* (Harmondsworth, Middlesex: Penguin Books, 1972); Joan Robinson, *Economic Heresies* (New York: Basic Books, 1973).
7. For a critique of the ideology of social harmony in location models since Von Thünen, see Joern Barnbrock, "Prolegomenon to a Methodological Debate on Location Theory: The Case of Von Thünen," *Antipode* 6, no. 1 (1974): 59-65.
8. See, for example, John F. Kain, "The Distribution and Movement of Jobs and Industry," in *The Metropolitan Enigma*, ed. James Q. Wilson (Cambridge: Harvard University Press, 1968), pp. 1-39; refs. to pp. 2-4.
9. For a more comprehensive introduction to Marxist method and theory, see Richard Walker, "The Suburban Solution: Urban Reform and Urban Geography in the Capitalist Development of the United States" (Ph.D. diss., The Johns Hopkins University, 1977), chap. 1, pp. 15-122 and refs. cited therein.
10. Neither cities nor capitalism change cleanly from one era to the next. The problem of distinguishing a new urban era from a past one is obviously complicated by considerations of diffusion of innovation, differing economic roles of cities, local quirks, differing rates of growth, and so forth.
11. David Harvey, "Urbanization Under Capitalism: Part I" (Unpublished manuscript, 1975), p. 16; see also idem, "The Geography of Accumulation," *Antipode* 7, no. 2 (1975): 9-21.
12. See Simon Kuznets, *Capital in the American Economy* (Princeton, N.J.: National Bureau of Economic Research, 1961); Moses Abramowitz, "The Nature and Significance of Kuznets Cycles," *Economic Development and Cultural Change* 9 (1961): 225-48; Brinley Thomas, *Migration and Economic Growth* (Cambridge: Cambridge University Press, 1973).
13. N. D. Kondratieff, "The Long Wave in Economic Life," *Review of Economic Statistics* 17 (1935): 105-15; see also George Garvy, "Kondratieff's Theory of Long Cycles," *Review of Economics and Statistics* 25, no. 4 (1943): 203-20; Ernest Mandel, *Late Capitalism* (London: New Left Books, 1975); Bob Rowthorn, "Late Capitalism," *New Left Review*, no. 98 (1976): 59-83; Joseph Schumpeter, *Business Cycles*, 2 vols. (New York: McGraw-Hill, 1939).
14. David Harvey, *Social Justice and the City*, pp. 41-43.
15. Ibid., pp. 57-73; Abramowitz, "Kuznets Cycles," p. 240.
16. The best discussion of this phenomenon is Homer Hoyt, *One Hundred Years of Land Values in Chicago* (Chicago: University of Chicago Press, 1933), especially pp. 368-422. Hoyt had discovered the Kuznets cycle about the same time as Kuznets, but did not know what he had stumbled on.
17. See Gregory Singleton, "The Genesis of Suburbia," in *The Urbanization of the Suburbs*, ed. Louis Masotti and Jeffrey K. Hadden (Beverly Hills, Calif.: Sage Publications, 1973), pp. 29-50; Kenneth T. Jackson, "Urban Deconcentration in the Nineteenth Century: A Statistical Inquiry," in *The New Urban History*, ed. Leo Schnore (Princeton: Princeton University Press, 1975), pp. 110-42.
18. For an account of the evolution of twentieth-century suburbanization, see Walker, "Suburban Solution," chaps. 4-7, pp. 293-615.
19. For more on the petty commodity stage of capitalist production, see Maurice Dobb, *Studies in the Development of Capitalism* (New York: International Publishers, 1963).
20. See, for example, Paul Gates, *The Farmers' Age* (New York: Holt, Rinehart, and Winston, 1960).
21. Jackson T. Main, *Social Structure in Revolutionary America* (Princeton: Princeton University Press, 1965), pp. 66-67.
22. They were also marked in the South, whose economy was built around the supply of raw materials to England. The pressures of this linkage had much to do with the distinct evolution of the South as a slave mode of production within the world capitalist order. Southern development and urbanism require a treatment separate from the heavily northern-biased one given in this article.
23. Roy Robbins, *Our Landed Heritage: The Public Domain, 1776-1970* (Lincoln: University of Nebraska Press, 1976), pp. 3-118; Thomas Le Duc, "History and Appraisal of U.S. Land Policy to 1862," in *Land Use Policy and Problems in the United States*, ed. Howard Ottoson (Lincoln: University of Nebraska Press, 1963), p. 3-27; Gates, *Farmers' Age*; Henry Nash Smith, *Virgin Land* (Cambridge: Harvard University Press, 1970), pp. 123-263.
24. Lance Davis, Richard Easterlin, William Parker et al., *American Economic Growth* (New York: Macmillan

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- Co., 1972), p. 28. Household production still produced two-thirds of all clothing worn in 1810. Thomas Bender, *Toward an Urban Vision* (Lexington: University Press of Kentucky, 1975), pp. 28-29.
25. Ibid.
26. George Rogers Taylor, "American Urban Growth Preceding the Railway Age," *Journal of Economic History* 27, no. 3 (1967): 321.
27. See, generally, Douglass C. North, *The Economic Growth of the United States, 1790-1860* (New York: W. W. Norton, 1966).
28. On the cyclical movements of this period, *ibid.*: Carter Goodrich, Julius Rubin, H. J. Cramner and Harvey Segal, *Canals and American Economic Development* (New York: Columbia University Press, 1961); Jeffrey G. Williamson, *American Growth and the Balance of Payments, 1820-1913* (Chapel Hill: University of North Carolina Press, 1964), pp. 83-111; Walker, "Suburban Solution," pp. 176-89.
29. Stanley Lebergott, *Marxism in Economic Growth* (New York: McGraw-Hill, 1964), p. 510.
30. Schumpeter, *Business Cycles*, p. 289.
31. On the conditions of manufacturing in this period, see Walker, "Suburban Solution," pp. 189-94; North, *Economic Growth*, pp. 156-77, especially: Allen Pred, "Manufacturing in the American Mercantile City: 1800-1840," *Annals of the Association of American Geographers* 56, no. 2 (1966): 307-38; David Montgomery, "The Working Classes of the Pre-Industrial American City, 1780-1830," *Labor History* 9, no. 1 (1968): 3-22; George Rogers Taylor, "The National Economy Before and After the Civil War," in *Economic Change in the Civil War Era*, ed. David Gilchrist and David Lewis (Greenville, Del.: Eleutherian Mills-Hagley Foundation, 1965), pp. 1-22; Schumpeter, *Business Cycles*, pp. 285-92; various essays in Harold F. Williamson, ed., *The Growth of the American Economy* (New York: Prentice-Hall, 1944).
32. The shortage of free labor was most crucial. Early spokesmen for domestic manufactures had to argue that the demand for labor would not draw it off from agriculture or trade, and they tried in vain to resist the flow of labor to the West. In practice, factory owners had often to resort to marginal forms of labor, such as unmarried women, children, or occupants of asylums and poorhouses. Montgomery, "Pre-Industrial American City," p. 18; cf. Sidney Pollard, *The Genesis of Modern Management* (Cambridge: Harvard University Press, 1965), pp. 160-208, on English practices.
33. Pred, "American Mercantile City," p. 307.
34. George Rogers Taylor, "The Beginnings of Mass Transportation in Urban America," *Smithsonian Journal of History* 1, nos. 2, 3 (1966): no. 2: 35-50; no. 3: 31-54; ref. in pt. 1, p. 38.
35. Pred, "American Mercantile City," p. 336.
36. Taylor, "Beginnings of Mass Transportation," pt. 1, p. 38.
37. Martyn J. Bowden, "Growth of the Central Districts in Large Cities," in *The New Urban History*, ed. Leo F. Schnore (Princeton: Princeton University Press, 1975), pp. 75-109; ref. to pp. 83-86. See also David Ward, *Cities and Immigrants* (New York: Oxford University Press, 1971); pp. 85-103.
38. Ward, *ibid.*
39. Montgomery, "Pre-Industrial American City," pp. 20-22.
40. *Ibid.*, pp. 13, 21.
41. Sam Bass Warner, *Streetcar Suburbs* (Cambridge: Harvard University Press, 1962), p. 19.
42. Ira Katznelson, "Community Conflict and Capitalist Development" Paper prepared for the 1975 annual meeting of the American Political Science Association, San Francisco, Calif., September 2-5; ref. to p. 6 et passim.
43. Jackson, "Urban Deconcentration," pp. 126-27.
44. *Ibid.*, p. 126.
45. Taylor, "Beginnings of Mass Transportation," p. 38.
46. Warner, *Streetcar Suburbs*, p. 134.
47. Walker, "Suburban Solution," pp. 253-70; David Rothman, *The Discovery of the Asylum* (Boston: Little, Brown & Co., 1971); Raymond Mohl, *Poverty in New York, 1789-1825* (New York: Oxford University Press, 1971); Robert H. Bremner, *From the Depths* (New York: New York University Press, 1956), pp. 3-123; Clifford S. Griffen, *The Ferment of Reform: 1830-1860* (New York: Thomas Y. Crowell, 1967); Roger Lane, *Policing the City: Boston* (Cambridge: Harvard University Press, 1967), pp. 26-38; Montgomery, "Pre-Industrial American City."
48. Hans Huth, *Nature and the American* (Lincoln: University of Nebraska Press, 1972), p. 123.
49. For a brief history of the omnibus, see Taylor, "Beginnings of Mass Transportation," pt. 1, pp. 40-48.
50. Jackson, "Urban Deconcentration," pp. 113-17. See generally, Ralph H. Brown, *Historical Geography of the United States* (New York: Harcourt, Brace & Co., 1948); Aaron M. Sakolski, *The Great American Land Bubble* (New York: Harper and Bros., 1932); Homer Hoyt, *Land Values in Chicago*; Richard Wade, *The Urban Frontier* (Cambridge: Harvard University Press, 1959); Charles Glaab and Theodore Brown, *A History of Urban America* (New York: Macmillan Co., 1967), pp. 25-51.
51. It also contrasts with the compact, socially controlled settlements of colonial New England, which had given way to a free land market and scatteration by the mid-eighteenth century. See Brown, *Historical Geography*, pp. 49-56. Add-on urban development guided by private property, profits, and the market seems so natural to us today that we may forget to comment on this aspect of the urbanization/suburbanization process.

52. This is clear from reading any of the works referred to in nn. 23 and 50, above.
53. Jackson, "Urban Deconcentration," pp. 115; Taylor, "Beginnings of Mass Transportation," pt. 1, p. 36. Both authors have worked up tables for city and suburban growth in selected large cities.
54. Kenneth T. Jackson, "Metropolitan Government versus Political Autonomy: Politics on the Crabgrass Frontier," in *Cities in American History*, ed. Kenneth T. Jackson and Stanley K. Schultz (New York: Alfred Knopf, 1972), pp. 442-52.
55. Jackson, "Urban Deconcentration," pp. 126-27; Warner, *Streetcar Suburbs*, p. 19; Taylor, "Beginnings of Mass Transportation," pt. 1, pp. 36, 37, 40.
56. Jackson, "Urban Deconcentration," p. 118; Warner, *Streetcar Suburbs*, pp. 15-21; Pred, "American Mercantile City," p. 325.
57. Jackson, "Urban Deconcentration," pp. 120-25; cf. Taylor, "Beginnings of Mass Transportation," pp. 35-40. However, the innermost wards invariably lost population owing to the expansion of the nonresidential business district; it was the next ring of wards, occupied by the working class, usually immigrants, that became, in most cases, more crowded than anything previously known.
58. Jackson, "Urban Deconcentration," p. 122.
59. The phrase is due to Warner.
60. Compare with Taylor, "Beginnings of Mass Transportation," pt. 1, pp. 44-45; and Walter Isard, "A Neglected Cycle: The Transport-Building Cycle," in *Review of Economics and Statistics* 24, no. 4 (1942): 149-58.
61. Taylor, "Beginnings of Mass Transportation," pt. 2, p. 47; K. H. Schaeffer and Eliot Sclar, *Access for All: Transportation and Urban Growth* (Baltimore: Pelican, 1975), pp. 20-21; Gareth Stedman Jones, *Outcast London* (Harmondsworth, Middlesex: Penguin Books, 1976), pp. 207-8.
62. The best source on mill towns other than Lowell is James E. Vance, Jr., "Housing the Worker: The Employment Linkage as a Force in Urban Structure," *Economic Geography* 42, no. 4 (1966): 294-325.
63. *Ibid.*, pp. 304-6.
64. On Lowell, see: *ibid.*, pp. 312-17; Bender, *Urban Vision*, pp. 32-51; Norman Ware, *The Industrial Worker, 1840-1860* (Chicago: Quadrangle Books, 1964), pp. 71-105 et passim; Herbert Gutman, "Work, Culture, and Society in Industrializing America, 1815-1919," *American Historical Review* 78, no. 3 (1973): 531-88; ref. to pp. 550-53.
65. Vance, "Housing the Worker," p. 314.
66. "... in Lowell there was hardly an hour of the day or a relationship of any sort that was not covered by the regulations, written or understood, of the corporations." Ware, *Industrial Worker*, p. 78.
67. Bender, *Urban Vision*, p. 110.
68. Ware, *Industrial Worker*, pp. 125-153.
69. On Pullman and its lessons for other capitalists, see Stanley Buder, *Pullman: An Experiment in Industrial Order and Community Planning, 1880-1930* (New York: Oxford University Press, 1967), p. 131; Edward Greer, "Monopoly and Competitive Capital in the Making of Gary, Indiana," *Science and Society* 40, no. 4 (1976-77): 465-78; ref. to pp. 468-69.
70. See the essays in David T. Gilchrist and W. David Lewis, eds., *Economic Change in the Civil War Era* (Greenville, Del.: Eleutherian Mills-Hagley Foundation, 1965).
71. North, *Economic Growth*, p. 205.
72. *Ibid.*, pp. 205, 210.
73. *Ibid.*, p. 204.
74. *Ibid.* The broadening market is North's chief causal factor, as we would expect from a theorist heavily steeped in exchange-based economics.
75. Contrary to the "take-off" theory of Walt W. Rostow, *The Stages of Economic Growth* (Cambridge: Cambridge University Press, 1971), p. 61, or the "age of railroads" interpretation of Joseph Schumpeter, *Business Cycles*, p. 326, the railroad boom from 1849 to 1854 actually lagged behind the progress of manufactures and gave little impetus to American capital goods industries, the industrialization of the Northeast, or lowering freight rates before the middle of the 1850s. See Albert Fishlow, *Railroads and the Transformation of the Ante-Bellum Economy* (Cambridge: Harvard University Press, 1965), pp. 55, 160, 260 et passim. In New England, accumulating profits from manufacturing were directed into railroad building in the late 1840s (*ibid.*, p. 244).
76. Taylor, "National Economy," p. 21; North, *Economic Growth*, p. 207; Goodrich, *American Economic Development*, p. 231; Fishlow, *Ante-Bellum Economy*, pp. 293-94.
77. Bender, *Urban Vision*, p. 106.
78. Ware, *Industrial Worker*, pp. 106-24.
79. *Ibid.*, p. 26; Fishlow, *Ante-Bellum Economy*, p. 248.
80. Ware, *Industrial Worker*, pp. 26-70; 198-226. Cf. David Montgomery, "The Shuttle and the Cross: Weavers and Artisans in the Kensington Riots of 1844," *Journal of Social History* 5, no. 4 (1972): 411-46.
81. Ware, *Industrial Worker*, pp. 227-40; Sam Bass Warner, *The Private City: Philadelphia* (Philadelphia: University of Pennsylvania Press, 1968), pp. 76-78.
82. Gilchrist and Lewis, *Civil War Era*, p. 148.

83. David Montgomery, *Beyond the Shuttle* (New York: Oxford University Press, 1978), p. 1.
84. Montgomery, *Beyond the Shuttle*, p. 1.
85. Williamson, *Balance of Power*, p. 1.
86. Pred, "American Mercantile City," p. 325. The rationalization was achieved through improvements with British and American methods.
87. North, *Economic Growth*, p. 205.
88. Joseph Petulla, *American Economic History*, p. 101; Clarence Danhof, "The American City," ed. Harold F. Williamson (New York: Oxford University Press, 1971), p. 101.
89. North, *Economic Growth*, p. 205.
90. Taylor, "National Economy," p. 21.
91. See, generally, Thomas Bender, *Urban Vision*, p. 110.
92. Bender, *Urban Vision*, p. 110.
93. North, *Economic Growth*, p. 205.
94. Taylor, "National Economy," p. 21.
95. Davis, *American Economic History*, p. 101.
96. See, generally, *ibid.*; William Leach, *Fables of the American Dream* (New York: Random House, 1973), p. 1.
97. Stephen Hymer, "The Market and the Firm," ed. Jagdish N. Bhagwati (New York: Oxford University Press, 1971), p. 1.
98. Davis, *American Economic History*, p. 101.
99. Harvey, "Urbanization and the City," p. 1.
100. Ward, *Cities and Immigrants*, p. 1.
101. *Ibid.*, pp. 85-105; Ward, *Cities and Immigrants*, p. 1.
102. Montgomery, *Beyond the Shuttle*, p. 1.
103. See above, n. 92.
104. Taylor, "Beginnings of Mass Transportation," pt. 1, p. 36. Waterpower continued to be used for the manufacture of fossil fuels had been largely replaced by coal.
105. Pred, "American Mercantile City," p. 325.
106. Rolla M. Tryon, *Housing and the City* (Chicago Press, 1917). Cities were located in terms of their location in terms of the rate and credit discriminating for example, Richard Peet, cited therein.
107. Clearly, the demand for labor depends on changing technology. Similarly, the supply of labor depends on changing conditions (profitability, investment, etc.). The division of labor between production and consumption increased very fast after the Civil War.
108. A. M. Hillhouse, *Municipal Government*, p. 1.
109. Glaab and Brown, *Housing and the City*, p. 1.
110. Hoyt, *Land Values in the City*, p. 1.
111. Ward, *Cities and Immigrants*, p. 1.
112. Later experience (at least in the United States) has shown that a new urban-industrial growth was critical, rather than a stagnation for a time, as indicated in the 1880s. But the existing urban organization, a product of Chicago. At the same time, the essential linkages and economic organization, in addition, the general level of technology could it solve the technical problems of the "Suburban Solution," chapter 10 of *Population in New Cities* (New York: Appleton-Century-Crofts, 1971), p. 1.

83. David Montgomery, *Beyond Equality* (New York: Knopf, 1967), p.8. The number for Philadelphia is 15.6 per establishment: Warner, *Private City: Philadelphia*, p. 77.
84. Montgomery, *Beyond Equality*, p. 30.
85. Williamson, *Balance of Payments*, p. 307.
86. Pred, "American Mercantile City," p. 314; Ware, *Industrial Worker*, p. 103. An indirect sort of financial rationalization was achieved by several states defaulting on their debts, most of which had financed internal improvements with British and eastern capital.
87. North, *Economic Growth*, p. 257; Taylor, "National Economy," p. 13.
88. Joseph Petulla, *American Environmental History* (San Francisco, Calif.: Boyd and Fraser, 1977), pp. 96-101; Clarence Danhof, "Agricultural Technology to 1880," in *The Growth of the American Economy*, ed. Harold F. Williamson (New York: Prentice-Hall, 1944), pp. 113-140.
89. North, *Economic Growth*, p. 209.
90. Taylor, "National Economy," p. 16.
91. See, generally, Thomas, *Migration and Economic Growth*.
92. Bender, *Urban Vision*, pp. 105-7; Ware, *Industrial Worker*, pp. 149-53.
93. North, *Economic Growth*, p. 170; Taylor, "National Economy," p. 15.
94. Taylor, "National Economy," p. 17.
95. Davis, *American Economic Growth*, p. 601.
96. See, generally, *ibid.*; Williamson, *Balance of Payments*; Gilchrist and Lewis, *Civil War Era*; Schumpeter, *Business Cycles*; Thomas, *Migration and Economic Growth*; Walker, "Suburban Solution," pp. 206-11 and data, appendix 1.
97. Stephen Hymer, "The Multinational Corporation and the Law of Uneven Development," in *Economics and World Order*, ed. Jagdish N. Bhagwati (New York: Macmillan Co., 1972), pp. 113-40; ref. to p. 118.
98. Davis, *American Economic Growth*, p. 601; Ward, *Cities and Immigrants*, p. 22.
99. Harvey, "Urbanization Under Capitalism," p. 108.
100. Ward, *Cities and Immigrants*, p. 31.
101. *Ibid.*, pp. 85-105; Warner, *Streetcar Suburbs*, pp. 46-66.
102. Montgomery, *Beyond Equality*, p. 37; Warner, *Streetcar Suburbs*, p. 6.
103. See above, n. 92.
104. Taylor, "Beginnings of Mass Transportation," pt. 1, p. 3; Schumpeter, *Business Cycles*, pp. 289-90. Waterpower continued to be used (it still contributed around fifty percent of the supply in 1860), but the age of fossil fuels had been launched. Petulla, *American Environmental History*, pp. 149-54.
105. Pred, "American Mercantile City," p. 317.
106. Rolla M. Tryon, *Household Manufactures in the United States, 1640-1860* (Chicago: University of Chicago Press, 1917). Cities benefited from being nodes of the system, not simply because of the efficiencies of their location in terms of transport and production, but also from forces for economic centralization, such as rate and credit discrimination. The exploitation by the cities of the rural hinterland is a topic in itself. See, for example, Richard Peet, "Rural Inequality and Regional Planning," *Antipode* 7, no. 3 (1975): 10-25; refs. cited therein.
107. Clearly, the demand for urban public services depends on more than urban growth per se; it also depends on changing technical and social definitions of what is necessary for urban production and consumption. Similarly, the supply of services by private enterprise or the state depends on technical and economic conditions (profitability, investible surplus) and decisions as to the appropriate mode of supply, especially the division of labor between private business and the state. In any event, the supply of public (municipal) services increased very fast after 1840; the municipal debt grew twenty-five times between 1840 and 1870. See A. M. Hillhouse, *Municipal Bonds* (New York: Prentice-Hall, 1936), p. 34.
108. Ward, *Cities and Immigrants*, pp. 89, 91.
109. Glaab and Brown, *History of Urban America*, p. 143.
110. Hoyt, *Land Values in Chicago*, p. 104; Ward, *Cities and Immigrants*, p. 100.
111. Ward, *Cities and Immigrants*, p. 101.
112. Later experience (at the end of the century), when a transformation to a new stage of accumulation and a new urban-industrial growth ensemble was under way, reinforces the impression of several factors together being critical, rather than any one alone. The need for a labor pool was a clear barrier to industrial decentralization for a time, as indicated, for example, by George Pullman's need to build a town to house his workers in the 1880s. But the existing urban pool was growing less desirable, owing to workers' increasing intransigence and organization, and this was another reason Pullman wanted to build his model town on the fringe of Chicago. At the same time large factory complexes, such as Pullman's, could internalize most of their essential linkages and economies of agglomeration, so central city location offered less advantage than the cheap land and open spaces outside the city. Factories so large could also attract their own labor force. In addition, the general level of production could not support the cost of a modern, space-extensive city, nor could it solve the technical problems of a transportation system that could integrate such a city. See Walker, "Suburban Solution," chap. 4, pp. 293-428. Cf. Buder, *Pullman*; E. E. Pratt, *The Industrial Causes of Congestion of Population in New York City* (New York: Columbia University Press, 1911); Graham Taylor, *Satellite Cities* (New York: Appleton, 1915).

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113. See Ward, *Cities and Immigrants*, pp. 105-25; and David Ward, "The Victorian Slum: An Enduring Myth?" *Annals of the Association of American Geographers* 66, no. 2 (1976): 323-36; refs. cited therein.
114. See David Harvey, "Labor, Capital, and Class Struggle Around the Built Environment in Advanced Capitalist Societies," chapter 1 of this volume.
115. Vance, "Housing the Worker," p. 307.
116. *Ibid.*, pp. 318-25.
117. *Ibid.*, pp. 319-22. The speculative nature of the Hadley Falls Company may well be owing to the fact that capital was moving out of the primary circuit of production in New England by 1847 and into secondary investments and speculations.
118. The motive force here was, of course, the wage-lowering competition of surplus laborers. The capitalists simply let the market take its "natural" course. Industrialists no longer needed housing to attract labor and were happy to be rid of this low-return investment, and the new providers of housing, while probably satisfied with a lower return than was industrial capital, were not willing to accept so low a return as decent housing for low-income workers would have brought. They therefore let workers crowd together as a "market adjustment." Vance, "Housing the Worker," p. 324, says as much, without the critical conclusion. On rates of return to investors in the nineteenth-century housing market, see Warner, *Streetcar Suburbs*, pp. 117-19.
119. There is no direct evidence of what industrialists were thinking about housing and class consciousness at this time. But the comparison to the rather open rejection of direct provision of housing (as in the Pullman experiment) at a later time is suggestive, particularly in light of the advocacy of small property and homeownership put forward by some Lowell burghers in the 1840s as a solution to worker alienation: the "solution" seized upon full scale by Vanderbilt, Gary, and most of the capitalist class by the end of the century. See references in n. 69, above; Bender, *Urban Vision*, pp. 115-16; Joel Tarr, "From City to Suburb: The Moral Influence of Transportation Technology," in *American Urban History*, ed. A. B. Callow (New York: Oxford University Press, 1973), pp. 202-12; Walker, "Suburban Solution," pp. 336-47; 368-90.
120. Vance, "Housing the Worker," p. 319 et passim; Roy Lubove, *The Progressives and the Slums* (Pittsburgh, Pa.: University of Pittsburgh Press, 1962), pp. 38-39 et passim; Warner, *Streetcar Suburbs*, pp. 67-152.
121. Vance observes that there had been crowding in some European cities before the freeing of the housing market and that some small manufacturing towns in the U.S. retained relatively decent housing, but "... when we look beyond a small group of often artificially immured cities, overcrowding and debasement of the workingman's home came with the generalized housing market." Vance, "Housing the Worker," p. 324. Yet Vance seems to attribute this debasement to the lag required to gear up a housing industry, rather than to the logic of profits and the market. Lubove frames the correct response in his critique of model tenement reform: "In effect, those who could afford the large capital investment required to build model tenements were not particularly interested; they had better uses for their capital which did not involve the annoyance. ... On the other hand, the small entrepreneurs, sometimes immigrants themselves, who owned the lion's share of New York tenements, were not prepared to sacrifice their profits for the sake of humanity." Lubove, *Progressives and the Slums*, p. 39.
122. Taylor, "Beginnings of Mass Transportation," pt. 1, p. 39. Again, densities did not ordinarily rise as high as New York's, nor did they rise at all in some cases. See above, n. 57.
123. Karl Marx, *Capital* (New York: International Publishers, 1967), 3:773. See also Harvey, "Labor, Capital, and Class Struggle."
124. E. P. Thompson, *The Making of the English Working Class* (Harmondsworth, Middlesex: Penguin Books, 1968).
125. Warner, *Private City: Philadelphia*, pp. 79-98. Walker, "Suburban Solution," pp. 358-68; 392-400.
126. John Foster, *Class Struggle and the Industrial Revolution* (London: Weidenfeld and Nicolson, 1974).
127. Jones, *Outcast London*, p. 14.
128. Walker, "Suburban Solution," pp. 270-81; 328-68 and refs. there.
129. Ward, *Cities and Immigrants*, p. 107.
130. For the theory of spatial entrapment today, see Harvey, *Social Justice and the City*, pp. 170-71. This is illustrated graphically, in that many workers were forced into shanty towns on the urban fringe in the initial stages of the industrial stage of accumulation and the free housing market, and then were forced back into the center city as the middle-class exodus (via streetcars) picked up speed. Ward, *Cities and Immigrants*, p. 106.
131. Gutman, "Industrializing America."
132. See, generally, Ward, *Cities and Immigrants*, pp. 125-45; Jackson, "Urban Deconcentration"; Taylor, "Beginnings of Mass Transportation"; Hoyt, *Land Values in Chicago*, pp. 81-107; Warner, *Streetcar Suburbs*; Joel Tarr, *Transportation Innovation and Changing Spatial Patterns: Pittsburgh, 1850-1910* (Pittsburgh, Pa.: Carnegie-Mellon University Press, 1972); idem, "City to Suburb."
133. Warner, *Streetcar Suburbs*, pp. 46-66.
134. Ward, *Cities and Immigrants*, p. 130; cf. Taylor, "Beginnings of Mass Transportation," pt. 2, p. 33; and Jackson, "Urban Deconcentration," p. 134. Original studies are cited by all of the above.
135. Taylor, "Beginnings of Mass Transportation," pp. 31-38.

136. Jackson, "Urban D... the separation of work a... century. *Ibid.*, pp. 139-4...
137. *Ibid.*, pp. 131-32. ... Francisco, 1846-1856; T... and S. K. Schultz (New Y... merchants remained in d... held on, in significant nu... Mass Transportation," p... to form in Philadelphia (... delayed there. See n. 13...
138. Taylor, "Beginnings...
139. Edward S. Mason, "... pp. 1-4.
140. Jackson, "Urban D...
141. Taylor, "Beginnings...
142. Alonso, *Location a...*
143. For the very wealth... long before the suburban... many people overextend... p. 123.
144. Singleton, "Genesi...
145. See, generally, Ma... *Review of Radical Politic...* the Theory of Capitalist...
146. See above, n. 37.
147. Lane, *Policing the ... and the Slums*, pp. 11-...
148. Lubove, *ibid.*, pp. 11... Russell Sage, 1968); Ne...
149. Warner, *Private Ci...*
150. Rothman, *Discover...*
151. *Ibid.*, pp. 138-41.
152. See, generally, Ho...
153. This has been thori... *Bubble*; Robbins, *Our La...*
154. *Ibid.* (Ames: lov... Chicago land history (se...
155. See above, n. 107.
156. Jackson, "Urban D...
157. Warner, *Streetcar...*
158. Peter Schmitt, *Bac...*
159. *Ibid.*, especially cha... of cultural diffusion was... thing crops up in Oimste... pp. 159-88, and further...
160. Warner, *Streetcar...*
161. Bender, *Urban Vis...*
162. *Ibid.*, p. 175.
163. *Ibid.*, p. 181.
164. Raymond Williams...
165. Richard Sennett, *A...* (Cambridge: Harvard U...
166. Tryon, *Household ... 1830-1860* (Ph.D. diss...
167. See refs. under n...
168. Taylor, "Beginning... of streetcar building see...
169. Warner, *Streetcar...*
170. Warner, *ibid.*, pp. 2...
171. A good theoretical... pricing and hyperextens... Economics," in *Land Eco...* Johns Hopkins Universi...

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136. Jackson, "Urban Deconcentration," pp. 134-39. In the smaller city of Louisville, as we would expect, the separation of work and home among the elite proceeded more slowly through the second half of the century. *Ibid.*, pp. 139-40.

137. *Ibid.*, pp. 131-32. See also Hoyt, *Land Values in Chicago*, pp. 279-367; and Roger Lotchin, "San Francisco, 1846-1856: The Patterns of Chaos and Growth," in *Cities in American History*, ed. K. T. Jackson and S. K. Schultz (New York: Knopf, 1972), pp. 151-60. George Rogers Taylor remarks that some wealthy merchants remained in downtown Boston "as late as the 1840s," while Philadelphia's more conservative elite held on, in significant numbers, to their central strongholds until after the Civil War. Taylor, "Beginnings of Mass Transportation," pt. 1, p. 40. The latter may help explain why slums owing to entrapment were slow to form in Philadelphia (Warner, *Private City: Philadelphia*, p. 56), and why the streetcar mania was also delayed there. See n. 138, below.

138. Taylor, "Beginnings of Mass Transportation," pt. 2, p. 49.

139. Edward S. Mason, *The Street Railways of Massachusetts* (Cambridge: Harvard University Press, 1932), pp. 1-4.

140. Jackson, "Urban Deconcentration," p. 134 and refs. there.

141. Taylor, "Beginnings of Mass Transportation," pt. 2, p. 47.

142. Alonso, *Location and Land Use*, p. 18.

143. For the very wealthy, money was probably never the limiting factor, as many owned summer estates long before the suburban era. However, so great was the fad for country estates in the 1830s and '40s that many people overextended themselves financially, trying to realize the ideal. Huth, *Nature and the American*, p. 123.

144. Singleton, "Genesis of Suburbia," p. 38.

145. See, generally, Marx, *Capital*, 1:330-35; 359-68; 418-27; Stephen Marglin, "What Do Bosses Do?" *Review of Radical Political Economy* 6, no. 2 (1974); Herbert Gintis, "The Nature of the Labor Exchange and the Theory of Capitalist Production," *Review of Radical Political Economy* 8, no. 2, (1976): 36-54.

146. See above, n. 37.

147. Lane, *Policing the City*; Warner, *Private City: Philadelphia*, chap. 7, pp. 125-60; Lubove, *Progressives and the Slums*, pp. 11-12.

148. Lubove, *ibid.*, pp. 11-23; John Duffy, *A History of Public Health in New York City, 1625-1860* (New York: Russell Sage, 1968); Nelson Blake, *Water for the Cities* (Syracuse, N.Y.: Syracuse University Press, 1956).

149. Warner, *Private City: Philadelphia*, pp. 62; 78; 125-60.

150. Rothman, *Discovery of the Asylum*.

151. *Ibid.*, pp. 138-41.

152. See, generally, Hoyt, *Land Values in Chicago*.

153. This has been thoroughly documented for the agricultural sector. See Sakolski, *Great American Land Bubble*; Robbins, *Our Landed Heritage*; Robert P. Swierenga, *Pioneers and Profits: Land Speculation on the Iowa Frontier* (Ames: Iowa State University Press, 1968). And it shows up clearly in Hoyt's classic study of Chicago land history (see n. 16, above).

154. See above, n. 107. Cf. Hoyt, *Land Values in Chicago*, p. 397.

155. Jackson, "Urban Deconcentration," p. 116.

156. Warner, *Streetcar Suburbs*, pp. 11-14 et passim.

157. Peter Schmitt, *Back to Nature* (New York: Oxford University Press, 1969), p. xvii.

158. *Ibid.*, especially chaps. 2 and 4. Smith, *Virgin Land*, pp. 71-123. An essential part of this complex process of cultural diffusion was the creation of a suburban ideology in terms of the physical environment. The same thing crops up in Olmsted and discussions of the moral influence of rapid transit. See Bender, *Urban Vision*, pp. 159-88, and further discussion in text; ref. n. 119, above.

159. Warner, *Streetcar Suburbs*, pp. 58-60.

160. Bender, *Urban Vision*, p. 162.

161. *Ibid.*, p. 175.

162. *Ibid.*, p. 181.

163. Raymond Williams, *The Country and the City* (London: Chatto and Windus, 1973), pp. 124-25.

164. Richard Sennett, *Families Against the City: Middle-Class Homes of Industrial Chicago, 1872-1890* (Cambridge: Harvard University Press, 1970).

165. Tryon, *Household Manufactures*; Mary Patricia Ryan, "American Society and the Cult of Domesticity: 1830-1860" (Ph.D. diss., University of California at Berkeley, 1972).

166. See refs. under nn. 11, 12, 16, 60, above.

167. Taylor, "Beginnings of Mass Transportation," pt. 1, pp. 44-45; pt. 2, p. 39 et passim. For later waves of streetcar building see Mason, *Street Railways of Massachusetts*.

168. Warner, *Streetcar Suburbs*, p. 49.

169. Warner, *ibid.*, pp. 29-34 et passim. Hoyt, *Land Values in Chicago*, chap. 7, pp. 368-423, especially.

170. A good theoretical discussion of horizontal subsidization of suburbanization through nonmarginal cost pricing and hyperextension of the utility-transport network is Mason Gaffney, "Land and Rent in Welfare Economics," in *Land Economics Research*, ed. Marion Clawson, M. Harris, and J. Ackerman (Baltimore: The Johns Hopkins University Press, 1962), pp. 141-67. See also Walker, "Urban Ground Rent," pp. 51-59.

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171. Taylor, "Beginnings of Mass Transportation," pt. 2, p. 50. Charles J. Kennedy, "Commuter Services in the Boston Area, 1835-1860," *Business History Review* 36 (1962): 153-70.
172. Taylor, "Beginnings of Mass Transportation," pt. 1, p. 47.
173. Ibid., pt. 2, p. 37, concerning profitability.
174. Mason, *Street Railways of Massachusetts*, pp. 1-13; 41-70. See also Walker, "Suburban Solution," pp. 388-90; Ward, *Cities and Immigrants*, pp. 130-31.
175. Homer Hoyt, *The Structure and Growth of Residential Neighborhoods in American Cities* (Washington, D.C.: Federal Housing Administration, 1939), map, p. 110; idem, *Land Values in Chicago*, pp. 53-74; 82-107; 132-41; 142-59; 184-96; Ward, *Cities and Immigrants*, p. 100; Pred, "American Mercantile City"; E. J. Hobsbawm, "The 19th Century London Labour Market," in *London: Aspects of Change*, Center for Urban Studies (London: McGibbon and Kee, 1964), pp. 3-28, ref. to pp. 7-9. Warner, *Private City: Philadelphia*, p. 59. For example, Warner describes the movement of workers to different employment loci in Philadelphia in 1860: the central business district, the northwestern locomotive and metalworking center, the Kensington textile center, and the Southwark mills (ibid., pp. 60-61).
176. Ward, *Cities and Immigrants*, pp. 87-89; 94-101; Bowden, "Districts in Large Cities"; Hoyt, *Land Values in Chicago*.
177. Walker, "Suburban Solution," chaps. 4, 5.
178. See above, n. 145.
179. David Harvey, "Class-Monopoly Rent, Finance Capital, and the Urban Revolution," *Regional Studies* 8, no. 3 (1974): 239-55; David Harvey and Lata Chatterjee, "Absolute Rent and the Structuring of Space by Financial and Governmental Institutions," *Antipode* 6, no. 1 (1974): 22-36.
180. See, generally, Ward, *Cities and Immigrants*, pp. 105-25; idem, "Victorian Slum."
181. Ward, *Cities and Immigrants*, p. 121; Warner, *Streetcar Suburbs*, p. 46; idem, *Private City: Philadelphia*, pp. 56-57.
182. The tendency of different groups of immigrants to specialize in their employment (with consequent locational impacts) was marked. Ward, *Cities and Immigrants*, p. 107.
183. Immigrants were greatly overrepresented near the central business district as a result, chiefly, of their being unskilled (or having skilled positions closed to them); the variety of occupations of the central business district served the unskilled better. Ibid. We have also seen how the Irish, as common day laborers in construction, were relegated to the shanty town of Lowell.
184. See above, n. 147.
185. Montgomery, "Kensington Riots of 1844." These ethnic tensions were certainly important in encouraging people to seek out their "own kind" in residential location, for mutual defense and support.
186. Warner, *Private City: Philadelphia*, pp. 62, 78; cf. Ware, *Industrial Worker*, pp. 26-71; on the origins of conflict, ibid., pp. 149-54.
187. Ware, *Industrial Worker*, pp. 227-40.
188. Taylor, "Beginnings of Mass Transportation," pt. 2, p. 50. Warner also notes the tendency for poor laborers to concentrate on the south side of Philadelphia in 1860, and that of the skilled workers to live to the north. Warner, *Private City: Philadelphia*, pp. 60-61.
189. My effort to complete the story can be found in Walker, "Suburban Solution," chaps. 4, 7.

SEGREGATION

One of the most chaotic in the United States is their ways have uneven spatially sociologically significant municipalities in metropolitan areas of their respective changes which may be whether social distance in a metropolitan area are increasing distances and another temporary observation direction has important

Concepts of Inter-M

The Lifestyle Model
The basic premise of the model is that beliefs, norms, and habits of people tend to seek residences near their own characteristics to define all urban areas, and that local government organizations, increasingly, also define urban areas: the local area

The authors are particularly interested in last minute data analysis and individual assistance in development