

## Chapter 14

## The Urban Process under Capitalism: A Framework for Analysis

*David Harvey*

My objective is to understand the urban process under capitalism. I confine myself to the capitalist forms of urbanization because I accept the idea that the 'urban' has a specific meaning under the capitalist mode of production which cannot be carried over without a radical transformation of meaning (and of reality) into other social contexts.

Within the framework of capitalism, I hang my interpretation of the urban process on the twin themes of accumulation and class struggle. The two themes are integral to each other and have to be regarded as different sides of the same coin - different windows from which to view the totality of capitalist activity. The class character of capitalist society means the domination of labour by capital. Put more concretely, a class of capitalists is in command of the work process and organizes that process for the purposes of producing profit. The labourer, on the other hand, has command only over his or her labour power which must be sold as a commodity on the market. The domination arises because the labourer must yield the capitalist a profit (surplus value) in return for a living wage. All of this is extremely simplistic, of course, and actual class relations (and relations between factions of classes) within an actual system of production (comprising production, services, necessary costs of circulation, distribution, exchange, etc.) are

highly complex. The essential marxian insight, however, is that profit arises out of the domination of labour by capital and that the capitalists as a class must, if they are to reproduce themselves, continuously expand the basis for profit. We thus arrive at a conception of a society founded on the principle of 'accumulation for accumulation's sake, production for production's sake'. The theory of accumulation which Marx constructs in *Capital* amounts to a careful enquiry into the dynamics of accumulation and an exploration of its contradictory character. This may sound rather 'economistic' as a framework for analysis, but we have to recall that accumulation is the means whereby the capitalist class reproduces both itself and its domination over labour. Accumulation cannot, therefore, be isolated from class struggle....

### Accumulation and the Urban Process

The understanding I have to offer of the urban process under capitalism comes from seeing it in relation to the theory of accumulation. We must first establish the general points of contact between what seem, at first sight, two rather different ways of looking at the world.

Whatever else it may entail, the urban process implies the creation of a material physical infrastructure for production, cir-

ulation, exchange and consumption. The first point of contact, then, is to consider the manner in which this built environment is produced and the way it serves as a resource system - a complex of use values - for the production of value and surplus value. We have, secondly, to consider the consumption aspect. Here we can usefully distinguish between the consumption of revenues by the bourgeoisie and the need to reproduce labour power. The former has a considerable impact upon the urban process, but I shall exclude it from the analysis because consideration of it would lead us into a lengthy discourse on the question of bourgeois culture and its complex significations without revealing very much directly about the specifically capitalist form of the urban process. Bourgeois consumption is, as it were, the icing on top of a cake which has as its prime ingredients capital and labour in dynamic relation to each other. The reproduction of labour power is essential and requires certain kinds of social expenditures and the creation of a consumption fund. The flows we have sketched, in so far as they portray capital movements into the built environment (for both production and consumption) and the laying out of social expenditures for the reproduction of labour power, provide us, then, with the structural links we need to understand the urban process under capitalism....

### *Overaccumulation and long waves in investment in the built environment*

The acid test of any set of theoretical propositions comes when we seek to relate them to the experience of history and to the practices of politics. In a short paper of this kind I cannot hope to demonstrate the relations between the theory of accumulation and its contradictions on the one hand, and the urban process on the other in the kind of detail which would be convincing. I shall therefore confine myself to illustrating some of the more important themes which can be identified. I will focus, first, exclu-

sively on the processes governing investment in the built environment.

The system of production which capital established was founded on a physical separation between a place of work and a place of residence. The growth of the factory system, which created this separation, rested on the organization of cooperation, division of labour and economies of scale in the work process as well as upon the application of machinery. The system also promoted an increasing division of labour between enterprises, and collective economies of scale through the agglomeration of activities in large urban centres. All of this meant the creation of a built environment to serve as a physical infrastructure for production, including an appropriate system for the transport of commodities. There are abundant opportunities for the productive employment of capital through the creation of a built environment for production. The same conclusion applies to investment in the built environment for consumption. The problem is, then, to discover how capital flows into the construction of this built environment and to establish the contradictions inherent in this process.

We should first say something about the concept of the built environment and consider some of its salient attributes. It is a complex composite commodity comprising innumerable different elements - roads, canals, docks and harbours, factories, warehouses, sewers, public offices, schools and hospitals, houses, offices, shops, etc. - each of which is produced under different conditions and according to quite different rules. The 'built environment' is, then, a gross simplification, a concept which requires disaggregation as soon as we probe deeply into the processes of its production and use. Yet we also know that these components have to function together as an ensemble in relation to the aggregative processes of production, exchange and consumption. For purposes of exposition we can afford to remain at this level of generality. We also know that the built environment is long-lived, difficult to alter,

spatially immobile and often absorbent of large lumpy investments. A proportion of it will be used in common by capitalists and consumers alike and even those elements which can be privately appropriated (houses, factories, shops, etc.) are used in a context in which the externality effects of private uses are pervasive and often quite strong. All of these characteristics have implications for the investment process.

The analysis of fixed capital formation and the consumption fund in the context of accumulation suggests that investment in the built environment is likely to proceed according to a certain logic. We presume, for the moment, that the state does not take a leading role in promoting vast public works programmes ahead of the demand for them. Individual capitalists, when left to their own devices, tend to under-invest in the built environment relative to their own individual and collective needs at the same time as they tend to overaccumulate. The theory then suggests that the overaccumulation can be syphoned off - via financial and state institutions and the creation of fictional capital within the credit system - and put to work to make up the slack in investment in the built environment. This switch from the primary to the secondary circuit may occur in the course of a crisis or be accomplished relatively smoothly depending upon the efficiency of the mediating institutions. But the theory indicates that there is a limit to such a process and that at some point investments will become unproductive. At such a time the exchange value being put into the built environment has to be written down, diminished, or even totally lost. The fictional capital contained within the credit system is seen to be just that and financial and state institutions may find themselves in serious financial difficulty. The devaluation of capital in the built environment does not necessarily destroy the use value - the physical resource - which the built environment comprises. This physical resource can now be used as 'devalued capital' and as such it functions as a free good which can help to reestablish the basis for renewed accumulation. From

this we can see the logic of Marx's statement that periodical devaluations of fixed capital provide 'one of the means immanent in capitalist production to check the fall of the rate of profit and hasten accumulation of capital-value through formation of new capital'.

Since the impulses deriving from the tendency to overaccumulate and to underinvest are rhythmic rather than constant, we can construct a cyclical 'model' of investment in the built environment. The rhythm is dictated in part by the rhythms of capital accumulation and in part by the physical and economic lifetime of the elements within the built environment - the latter means that change is bound to be relatively slow. The most useful thing we can do at this juncture is to point to the historical evidence for 'long waves' in investment in the built environment. Somewhere in between the short-run movements of the business cycle - the 'Juglar cycles' of approximately ten-year length - and the very long 'Kondratieff's', we can identify movements of an intermediate length (sometimes called Kuznets cycles) which are strongly associated with waves of investment in the built environment....

The flow of investment into the built environment depends upon the existence of surpluses of capital and labour and upon mechanisms for pooling the former and putting it to use. The history of this process is extremely interesting. The eighteenth century in Britain was characterized, for example, by a capital surplus much of which went into the built environment because it had nowhere else to go. Investment in the built environment took place primarily for financial rather than use-value reasons - investors were looking for a steady and secure rate of return on their capital. Investment in property (much of it for conspicuous consumption by the bourgeoisie), in turnpikes, canals and rents (agricultural improvement) as well as in state obligations were about the only options open to rentiers. The various speculative crises which beset investment in the turnpikes and canals

as well as urban property markets, indicated very early on that returns were by no means certain and that investments had to be productive if they were to succeed.' ...

When, precisely, the tendency towards overaccumulation became the main agent producing surplus capital and when the 'long waves' became explicitly tied to overaccumulation is a moot point. The evidence suggests that by the 1840s the connections had been strongly forged in Britain at least. By then, the functioning of the capital market was strongly bound to the rhythms imposed by the development of industrial capitalism....

And what of the devaluation which inevitably results? If the devaluation is to function effectively, according to our theory, then it must leave behind a use value which can be used as the basis for further development. When many of the American states defaulted on their debts in the early 1840s, they failed to meet their obligations on the British capital market but kept the canals and other improvements which they had built. This was, in effect, expropriation without compensation - a prospect which the United States government treats with great moral indignation when some third-world country threatens it today. The great railroad booms of the nineteenth century typically devalued capital while littering the landscape with physical assets which could usually be put to some use. When the urban mass transit systems went bankrupt at the turn of the century because of chronic overcapitalization, the mass transit systems were left behind as physical assets. Somebody had to pay for the devaluation of course. There were the inevitable attempts to foist the costs onto the working class (often through municipal expenditures) or onto small investors. But big capital was not immune either, and the problems of the property companies in Britain or the real estate investment trusts in the United States at the present time are exactly of this sort (although the involvement of pension funds and insurance companies affects individuals). The office

space is still there, however, even though the building that houses it has been devalued and is now judged a non-earning asset. The history of devaluations in the built environment is spectacular enough and fits, in general, with the theoretical argument....

Marx's extensive analysis of fixed capital in relation to accumulation reveals a central contradiction. On the one hand, fixed capital enhances the productivity of labour and thereby contributes to the accumulation of capital. But, on the other hand, it functions as a use value and requires the conversion of exchange values into a physical asset which has certain attributes. The exchange value locked up in this physical use value can be recouped only by keeping the use value fully employed over its lifetime, which for simplicity's sake we will call its 'amortization time'. As a use value the fixed capital cannot easily be altered and so it tends to freeze productivity at a certain level until the end of the amortization time. If new and more productive fixed capital comes into being before the old is amortized, then the exchange value still tied up in the old is devalued. Resistance to this devaluation checks the rise in productivity and, thus, restricts accumulation. On the other hand the pursuit of new and more productive forms of fixed capital - dictated by the quest for relative surplus value - accelerates devaluations of the old.

We can identify exactly these same contradictory tendencies in relation to investment in the built environment, although they are even more exaggerated here because of the generally long amortization time involved, the fixity in space of the asset, and the composite nature of the commodity involved. We can demonstrate the argument most easily using the case of investment in transportation.

The cost, speed and capacity of the transport system relate directly to accumulation because of the impacts these have on the turnover time of capital. Investment and innovation in transport are therefore potentially productive for capital in

general. Under capitalism, consequently, we see a tendency to 'drive beyond all spatial barriers' and to 'annihilate space with time' (to use Marx's own expressions).<sup>z</sup> This process is, of course, characterized typically by 'long waves' of the sort which we have already identified, uneven development in space and periodic massive devaluations of capital.<sup>3</sup>

We are here concerned, however, with the contradictions implicit in the process of transport development itself. Exchange values are committed to create 'efficient' and 'rational' configurations for spatial movement at a particular historical moment. There is, as it were, a certain striving towards spatial equilibrium, spatial harmony. On the other hand, accumulation for accumulation's sake spawns continuous revolutions in transportation technology as well as a perpetual striving to overcome spatial barriers - all of which is disruptive of any existing spatial configuration.

We thus arrive at a paradox. In order to overcome spatial barriers and to annihilate space with time, spatial structures are created with themselves act as barriers to further accumulation. These spatial structures are expressed in the form of immobile transport facilities and ancillary facilities implanted in the landscape. We can in fact extend this conception to encompass the formation of the built environment as a whole. Capital represents itself in the form of a physical landscape created in its own image, created as use values to enhance the progressive accumulation of capital. The geographical landscape which results is the crowning glory of past capitalist development. But at the same time it expresses the power of dead labour over living labour and as such it imprisons and inhibits the accumulation process within a set of specific physical constraints. And these can be removed only slowly unless there is a substantial devaluation of the exchange value locked up in the creation of these physical assets.

Capitalist development has therefore to negotiate a knife-edge path between preserving the exchange values of past capital

investments in the built environment and destroying the value of these investments in order to open up fresh room for accumulation. Under capitalism there is, then, a perpetual struggle in which capital builds a physical landscape appropriate to its own condition at a particular moment in time, only to have to destroy it, usually in the course of a crisis, at a subsequent point in time. The temporal and geographical ebb and flow of investment in the built environment can be understood only in terms of such a process. The effects of the internal contradictions of capitalism, when projected into the specific context of fixed and immobile investment in the built environment, are thus writ large in the historical geography of the landscape which results.

### **Class Struggle, Accumulation and the Urban Process under Capitalism**

What, then, of overt class struggle - the resistance which the working class collectively offers to the violence which the capitalist form of accumulation inevitably inflicts upon it? This resistance, once it becomes more than merely nominal, must surely affect the urban process under capitalism in definite ways...

The central point of tension between capital and labour lies in the workplace and is expressed in struggles over the work process and the wage rate. These struggles take place in a context. The nature of the demands, the capacity of workers to organize and the resolution with which the struggles are waged, depend a great deal upon the contextual conditions. The law (property rights, contract, combination and association, etc.) together with the power of the capitalist class to enforce their will through the use of state power are obviously fundamental as any casual reading of labour history will abundantly illustrate. What specifically interests me here, however, is the process of reproduction of labour power in relation to class struggle in the workplace....

#### *Some remarks on the housing question*

The demand for adequate shelter is clearly high on the list of priorities from the standpoint of the working class. Capital is also interested in commodity production for the consumption fund provided this presents sufficient opportunities for accumulation. The broad lines of class struggle around the 'housing question' have had a major impact upon the urban process. We can trace some of the links back to the workplace directly. The agglomeration and concentration of production posed an immediate quantitative problem for housing workers in the right locations - a problem which the capitalist initially sought to resolve by the production of company housing but which thereafter was left to the market system. The cost of shelter is an important item in the cost of labour power. The more workers have the capacity to press home wage demands, the more capital becomes concerned about the cost of shelter. But housing is more than just shelter. To begin with, the whole structure of consumption in general relates to the form which housing provision takes. The dilemmas of potential overaccumulation which faced the United States in 1945 were in part resolved by the creation of a whole new life style through the rapid proliferation of the suburbanization process. Furthermore, the social unrest of the 1930s in that country pushed the bourgeoisie to adopt a policy of individual homeownership for the more affluent workers as a means to ensure social stability. This solution had the added advantage of opening up the housing sector as a means for rapid accumulation through commodity production. So successful was this solution that the housing sector became a Keynesian 'contra-cyclical' regulator for the accumulation process as a whole, at least until the *debacle* of 1973. The lines of class struggle in France were markedly different (see Houdeville, 1969). With a peasant sector to ensure social stability in the form of small-scale private property-ownership, the housing problem was seen

politically mainly in terms of costs. The rent control of the inter-war years reduced housing costs but curtailed housing as a field for commodity production with all kinds of subsequent effects on the scarcity and quality of housing provision. Only after 1958 did the housing sector open up as a field for investment and accumulation and this under government stimulus. Much of what has happened in the housing field and the shape of the 'urban' that has resulted can be explained only in terms of these various forms of class struggle.

#### *The 'moral influence' of suburbanization as an antidote to class struggle*

The second example I shall take is even more complex. Consider in its broad outlines, the history of the bourgeois response to acute threats of civil strife which are often associated with marked concentrations of the working class and the unemployed in space. The revolutions of 1848 across Europe, the Paris Commune of 1871, the urban violence which accompanied the great railroad strikes of 1877 in the United States and the Haymarket incident in Chicago, clearly demonstrated the revolutionary dangers associated with the high concentration of the 'dangerous classes' in certain areas. The bourgeois response was in part characterized by a policy of dispersal so that the poor and the working class could be subjected to what nineteenth-century urban reformers on both sides of the Atlantic called the 'moral influence' of the suburbs. Cheap suburban land, housing and cheap transportation were all a part of this solution entailing, as a consequence, a certain form and volume of investment in the built environment on the part of the bourgeoisie. To the degree that this policy was necessary, it had an important impact upon the shape of both British and American cities. And what was the bourgeois response to the urban riots of the 1960s in the ghettos of the United States? Open up the suburbs, promote low-income and black homeownership,

improve access via the transport system ... the parallels are remarkable.

*The doctrine of 'community improvement' and its contradictions*

The alternative to dispersal is what we now call 'gilding the ghetto' - but this, too, is a well-tryed and persistent bourgeois response to a structural problem which just will not disappear. As early as 1812, the Reverend Thomas Chalmers wrote with horror of the spectre of revolutionary violence engulfing Britain as working-class populations steadily concentrated in large urban areas. Chalmers saw the 'principle of community' as the main bulwark of defence against this revolutionary tide - a principle which, he argued, should be deliberately cultivated to persuade all that harmony could be established around the basic institutions of community, a harmony which could function as an antidote to class war. The principle entailed a commitment to community improvement and a commitment to those institutions, such as the church and civil government, capable of forging community spirit. From Chalmers through Octavia Hill and Jane Addams, through the urban reformers such as Joseph Chamberlin in Britain, the 'moral reformers' in France and the 'progressives' in the United States at the end of the nineteenth century, through to model cities programmes and citizen participation, we have a continuous thread of bourgeois response to the problems of civil strife and social unrest.

But the 'principle of community' is not a bourgeois invention. It has also its authentic working-class counterpart as a defensive and even offensive weapon in class struggle. The conditions of life in the community are of great import to the working class and they can therefore become a focus of struggle which can assume a certain relative autonomy from that waged in the factory. The institutions of community can be captured and put to work for working-class ends. The church in the early years of the industrial revolution was on occasion mobilized at the local level in the interests of

the working class much as it also became a focus for the black liberation movement in the United States in the 1960s and is a mobilization point for class struggle in the Basque country of Spain. The principle of community can then become a springboard for class action rather than an antidote to class struggle. Indeed, we can argue that the definition of community as well as the command of its institutions is one of the stakes in class struggle in capitalist society. This struggle can break open into innumerable dimensions of conflict, pitting one element within the bourgeoisie against another and various fragments of the working class against others as the principles of 'turf' and 'community autonomy' become an essential part of life in capitalist society. The bourgeoisie has frequently sought to divide and rule but just as frequently has found itself caught in the harvest of contradictions it has helped to sow. We find 'bourgeois' suburbanites resisting the further accumulation of capital in the built environment, individual communities in competition for development producing a grossly inefficient and irrational spatial order even from the standpoint of capital at the same time as they incur levels of indebtedness which threaten financial stability (the well-publicized current problems of New York are, for example, typical for the historical experience of the United States). We find also civil disorder within the urban process escalating out of control as ethnic, religious and racial tensions take on their own dynamic in partial response to bourgeois promptings (the use of ethnic and racial differences by the bourgeoisie to split the organization in the workplace has a long and ignoble history in the United States in particular).

*Working-class resistance and the circulation of capital*

The strategies of dispersal, community improvement and community competition, arising as they do out of the bourgeois response to class antagonisms, are fundamental to understanding the material history of the urban process under capitalism. And

they are not without their implications for the circulation of capital either. The direct victories and concessions won by the working class have their impacts. But at this point we come back to the principles of accumulation, because if the capitalist class is to reproduce itself and its domination over labour it must effectively render whatever concessions labour wins from it consistent with the rules governing the productivity of investments under capitalist accumulation. Investments may switch from one sphere to another in response to class struggle to the degree that the rules for the accumulation of capital are observed. Investment in working-class housing or in a national health service can thus be transformed into a vehicle for accumulation via commodity production for these sectors. Class struggle can, then, provoke 'switching crises', the outcome of which can change the structure of investment flows to the advantage of the working class. But those demands which lie within the economic possibilities of accumulation as a whole can in the end be conceded by the capitalist class without loss. Only when class struggle pushes the system beyond its own internal potentialities, is the accumulation of capital and the reproduction of the capitalist class called into question. How the bourgeoisie responds to such a situation depends on the possibilities open to it. For example, if capital can switch geographically to pastures where the working class is more compliant, then it may seek to escape the consequences of heightened class struggle in this way. Otherwise it must invest in economic, political and physical repression or simply fall before the working-class onslaught.

NOTES

1 The whole question of the capital surplus in the eighteenth century was first raised by Postan (1935) and subsequently elaborated on by Deane and Cole (1967). Recent studies on the financing of turnpikes and of canals in Britain by Albert (1972) and Ward (1974) provide some more detailed information.

Class struggle thus plays its part in shaping the flows of capital between spheres and regions. The timing of the 'long waves' of investment in the built environment of Paris, for example, is characterized by deep troughs in the years of revolutionary violence - 1830, 1848, 1871. At first sight the rhythm appears to be dictated by purely political events yet the typical 15-25-year rhythm works just as well here as it does in other countries where political agitation was much less remarkable. The dynamics of class struggle are not immune to influences stemming from the rhythms of capitalist accumulation, of course, but it would be too simplistic to interpret the political events in Paris simply in these terms. What seems so extraordinary is that the overall rhythms of accumulation remain broadly intact in spite of the variations in the intensity of working-class struggle.

But if we think it through, this is not, after all, so extraordinary. We still live in a capitalist society. And if that society has survived then it must have done so by imposing those laws of accumulation whereby it reproduces itself. To put it this way is not to diminish working-class resistance, but to show that a struggle to abolish the wages system and the domination of capital over labour must necessarily look to the day when the capitalist laws of accumulation are themselves relegated to the history books. And until that day, the capitalist laws of accumulation, replete with all of their internal contradictions, must necessarily remain the guiding force in our history.

2 I have attempted a much more extensive treatment of the transport problem in Harvey (1975).

3 See Isard (1942) for some interesting material.

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## Chapter 15

# An Introduction to the Information Age

*Manuel Castells*

In the last decade I was struck, as many have been, by a series of major historical events that have transformed our world/our lives. Just to mention the most important: the diffusion and deepening of the information technology revolution, including genetic engineering; the collapse of the Soviet Union, with the consequent demise of the international Communist movement, and the end of the Cold War that had marked everything for the last half a century; the restructuring of capitalism; the process of globalization; emergence of the Pacific as the most dynamic area of the global economy; the paradoxical combination of a surge in nationalism and the crisis of the sovereign nation-state; the crisis of democratic politics, shaken by periodic scandals and a crisis of legitimacy; the rise of feminism and the crisis of patriarchy; the widespread diffusion of ecological consciousness; the rise of communalism as sources of resistance to globalization, taking in many contexts the form of religious fundamentalism; last, but not least, the development of a global criminal economy that is having significant impacts in international economy, national politics, and local everyday life.

I grew increasingly dissatisfied with the interpretations and theories, certainly including my own, that the social sciences were using to make sense of this new world. But I did not give up the rationalist

project of understanding all this, in a coherent manner, that could be somewhat empirically grounded and as much as possible theoretically oriented. Thus, for the last 12 years I undertook the task of researching and understanding this wide array of social trends, working in and on the United States, Western Europe, Russia, Asian Pacific, and Latin America. Along the way, I found plenty of company, as researchers from all horizons are converging in this collective endeavour.

My personal contribution to this understanding is the book in three volumes that I have now completed, *The Information Age*, with the first volume already published, and the two others scheduled for publication in 1997. The first volume analyses the new social structure, the network society. The second volume studies social movements and political processes, in the framework of and in interaction with the network society. The third volume attempts an interpretation of macro-social processes, as a result of the interaction between the power of networks and the power of identity, focusing on themes such as the collapse of the Soviet Union, the emergence of the Pacific, or the ongoing process of global social exclusion and polarization. It also proposes a general theoretical synthesis.

I will take this opportunity to share with you the main lines of my argument, hoping