

The urban process under capitalism:

a framework for analysis

by David Harvey

L'objectif de cet article est d'esquisser une problématique générale pour l'interprétation du processus urbain capitaliste. À cette fin, deux thèmes apparentés, l'accumulation et la lutte de classes, sont examinés. Un examen de la théorie marxiste de l'accumulation mène à une compréhension théorique du rôle de l'investissement dans le cadre bâti en relation avec l'ensemble de la structure et des contradictions du processus d'accumulation. Plus précisément, l'investissement dans le cadre bâti est perçu en relation avec les différentes formes de crise qui peuvent surgir sous le capitalisme. Une sélection d'exemples empiriques est présentée et discutée afin d'illustrer comment le support théorique est relié à l'évidence historique. Ceci permet de mettre à l'intérieur d'une perspective théorique cohérente les 'long cycles' d'investissement observés, ainsi que les changements géographiques des fluxes d'investissements. Ensuite la manière dont le cadre bâti lui-même exprime et contribue aux crises capitalistes est examinée. Il est démontré que sous le capitalisme il existe une lutte perpétuelle selon laquelle le capital essaye de construire un environnement propre à son image seulement pour le détruire avec la réapparition d'une nouvelle crise. L'analyse considère alors comment la lutte de classes—c'est à dire la réaction organisée de la force du travail aux déprédations du capital—influence la direction et la forme de l'investissement dans le cadre bâti. D'un intérêt particulier est la manière dont la lutte de classes au lieu du travail se trouve déplacée à travers le processus urbain vers des luttes centrées autour de la reproduction de la force du travail au foyer. Quelques exemples de ces luttes sont présentés afin d'illustrer comment elles se rattachent à la lutte fondamentale au point de production en même temps qu'elles influencent la direction et la forme de l'investissement dans le cadre bâti.

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.

I The contradictions of capitalism

We can spin a whole web of arguments concerning the urban process out of an analysis of the contradictions of capitalism. Let me set out the principal forms these contradictions take.

Consider, first, the contradiction which lies within the capitalist class itself. In the realm of exchange each capitalist operates in a world of individualism, freedom and equality and can and must act spontaneously and creatively. Through competition, however, the inherent laws of capitalist production are asserted as 'external coercive laws having power over every individual capitalist'. A world of individuality and freedom on the surface conceals a world of conformity and coercion underneath. But the translation from individual action to behaviour according to class norms is neither complete nor perfect—it never can be because the *process* of exchange under capitalist rules always presumes individuality while the law of value always asserts itself in social terms. As a consequence, individual capitalists, each acting in their own immediate self-interest, can produce an aggregative result which is wholly antagonistic to their collective class interest. To take a rather dramatic example, competition may force each capitalist to so lengthen and intensify the work process that the capacity of the labour force to produce surplus value is seriously impaired. The collective effects of individual entrepreneurial activity can seriously endanger the social basis for future accumulation.

Consider, secondly, the implications of accumulation for the labourers. We know from the theory of surplus value that the exploitation of labour power is the source of capitalist profit. The capitalist form of accumulation therefore rests upon a certain violence which the capitalist class inflicts upon labour. Marx showed, however, that this appropriation could be worked out in such a way that it did not offend the rules of equality, individuality

and freedom as they must prevail in the realms of exchange. Labourers, like the capitalists, 'freely' trade the commodity they have for sale in the market place. But labourers are also in competition with each other for employment while the work process is under the command of the capitalist. Under conditions of unbridled competition, the capitalists are forced willy-nilly into inflicting greater and greater violence upon those whom they employ. The individual labourer is powerless to resist this onslaught. The only solution is for the labourers to constitute themselves as a class and find collective means to resist the depredations of capital. The capitalist form of accumulation consequently calls into being overt and explicit class struggle between labour and capital. This contradiction between the classes explains much of the dynamic of capitalist history and is in many respects quite fundamental to understanding the accumulation process.

The two forms of contradiction are integral to each other. They express an underlying unity and are to be construed as different aspects of the same reality. Yet we can usefully separate them in certain respects. The internal contradiction within the capitalist class is rather different from the class confrontation between capital and labour, no matter how closely the two may be linked. In what follows I will focus on the accumulation process in the absence of any overt response on the part of the working class to the violence which the capitalist class must necessarily inflict upon it. I will then broaden the perspective and consider how the organization of the working class and its capacity to mount an overt class response affects the urban process under capitalism.

Various other forms of contradiction could enter in to supplement the analysis. For example, the capitalist production system often exists in an antagonistic relationship to non- or pre-capitalist sectors which may exist within (the domestic economy, peasant and artisan production sectors, etc.) or without it (pre-capitalist societies, socialist countries, etc.). We should also note the contradiction with 'nature' which inevitably arises out of the relation between the dynamics of accumulation and the 'natural' resource base as it is defined in capitalist terms. Lack of space precludes any examination of these matters here. But they would obviously have to be taken into account in any analysis of the history of urbanization under capitalism.

II The laws of accumulation

We will begin by sketching the structure of flows of capital within a system of production and realization of value. This I will do with the aid of a series of diagrams which will appear highly 'functionalist' and perhaps unduly simple in structure, but which nevertheless help us to understand the basic logic of the accumulation process. We will also see how problems arise because individual capitalists produce a result inconsistent with their class interest and consider some of the means whereby solutions to these

problems might be found. We will, in short, attempt a summary of Marx's argument in *Capital* in the ridiculously short space of three or four pages.

1 *The primary circuit of capital*

In volume one of *Capital*, Marx presents an analysis of the capitalist production process. The drive to create surplus value rests either on an increase in the length of the working day (absolute surplus value) or on the gains to be made from continuous revolutions in the 'productive forces' through reorganizations of the work process which raise the productivity of labour power (relative surplus value). The capitalist captures relative surplus value from the organization of cooperation and division of labour within the work process or by the application of fixed capital (machinery). The motor for these continuous revolutions in the work process, for the rising productivity of labour, lies in capitalist competition as each capitalist seeks an excess profit by adopting a superior production technique to the social average.

The implications of all of this for labour are explored in a chapter entitled 'the general law of capitalist accumulation'. Marx here examines alterations in the rate of exploitation and in the temporal rhythm of changes in the work process in relation to the supply conditions of labour power (in particular, the formation of an industrial reserve army), assuming all the while, that a positive rate of accumulation must be sustained if the capitalist class is to reproduce itself. The analysis proceeds around a strictly circumscribed set of interactions with all other problems assumed away or held constant. Figure 1 portrays the relations examined.

The second volume of *Capital* closes with a 'model' of accumulation on an expanded scale. The problems of proportionality involved in the aggregative production of means of production and means of consumption are examined with all other problems held constant (including technological change, investment in fixed capital, etc.). The objective here is to show the potential for crises of disproportionality within the production process. But Marx has now broadened the structure of relationships put under the microscope (see Figure 2). We note, however, that in both cases Marx assumes, tacitly, that all commodities are produced and consumed within one time period. The structure of relations examined in Figure 2 can be characterized as the *primary circuit of capital*.

Much of the analysis of the falling rate of profit and its countervailing tendencies in volume 3 similarly presupposes production and consumption within one time period although there is some evidence that Marx intended to broaden the scope of this if he had lived to complete the work. But it is useful to consider the volume 3 analysis as a synthesis of the arguments presented in the first two volumes and as at the very least a cogent statement of the internal contradictions which exist within the primary circuit. Here we can clearly see the contradictions which arise out of the tendency for individual capitalists to act in a way which, when aggregated, runs counter to their own class interest. This contradiction produces a tendency towards

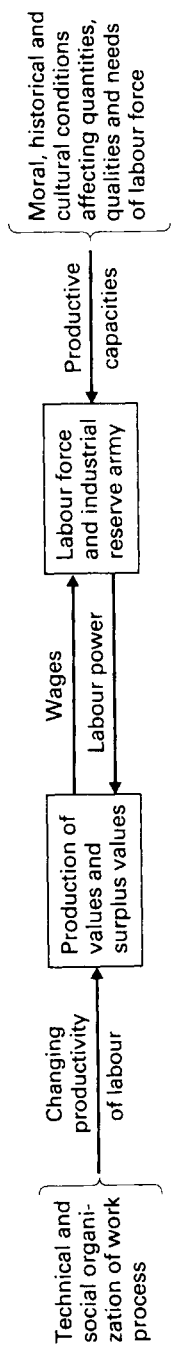


Figure 1 The relations considered in 'the general law of accumulation' (volume 1 of *Capital*)

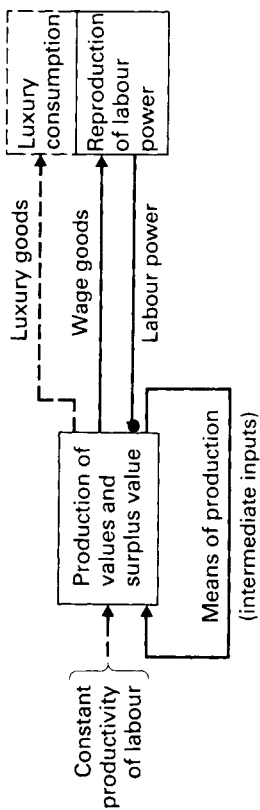


Figure 2 The relations considered for 'reproduction on an expanded scale' (volume 2 of *Capital*)

overaccumulation—too much capital is produced in aggregate relative to the opportunities to employ that capital. This tendency is manifest in a variety of guises. We have:

- 1 Overproduction of commodities—a glut on the market.
- 2 Falling rates of profit (in pricing terms, to be distinguished from the falling rate of profit in value terms which is a theoretical construct).
- 3 Surplus capital which can be manifest either as idle productive capacity or as money capital lacking opportunities for profitable employment.
- 4 Surplus labour and/or rising rate of exploitation of labour power. One or a combination of these manifestations may be present at the same time. We have here a preliminary framework for the analysis of capitalist crises.

2 *The secondary circuit of capital*

We now drop the tacit assumption of production and consumption within one time period and consider the problems posed by production and use of commodities requiring different working periods, circulation periods, and the like. This is an extraordinarily complex problem which Marx addresses to some degree in volume 2 of *Capital* and in the *Grundrisse*. I cannot do justice to it here so I will confine myself to some remarks regarding the formation of *fixed capital* and the *consumption fund*. Fixed capital, Marx argues, requires special analysis because of certain peculiarities which attach to its mode of production and realization. These peculiarities arise because fixed capital items can be produced in the normal course of capitalist commodity production but they are used as aids to the production process rather than as direct raw material inputs. They are also used over a relatively long time period. We can also usefully distinguish between fixed capital enclosed within the production process and fixed capital which functions as a physical framework for production. The latter I will call the *built environment for production*.

On the consumption side, we have a parallel structure. A *consumption fund* is formed out of commodities which function as aids rather than as direct inputs to consumption. Some items are directly enclosed within the consumption process (consumer durables, such as cookers, washing machines, etc.) while others act as a physical framework for consumption (houses, sidewalks, etc.)—the latter I will call the *built environment for consumption*.

We should note that some items in the built environment function jointly for both production and consumption—the transport network, for example—and that items can be transferred from one category to another by changes in use. Also, fixed capital in the built environment is immobile in space in the sense that the value incorporated in it cannot be moved without being destroyed. Investment in the built environment therefore entails the creation of a whole physical landscape for purposes of production, circulation, exchange and consumption.

We will call the capital flows into fixed asset and consumption fund

formation the *secondary circuit of capital*. Consider, now, the manner in which such flows can occur. There must obviously be a 'surplus' of both capital and labour in relation to current production and consumption needs in order to facilitate the movement of capital into the formation of long-term assets, particularly those comprising the built environment. The tendency towards overaccumulation produces such conditions within the primary circuit on a periodic basis. One feasible if *temporary* solution to this overaccumulation problem would therefore be to switch capital flows into the secondary circuit.

Individual capitalists will often find it difficult to bring about such a switch in flows for a variety of reasons. The barriers to individual switching of capital are particularly acute with respect to the built environment where investments tend to be large-scale and long-lasting, often difficult to price in the ordinary way and in many cases open to collective use by all individual capitalists. Indeed, individual capitalists left to themselves will tend to under-supply their own collective needs for production precisely because of such barriers. Individual capitalists tend to overaccumulate in the primary circuit and to under-invest in the secondary circuit; they have considerable difficulty in organizing a balanced flow of capital between the primary and secondary circuits.

A general condition for the flow of capital into the secondary circuit is, therefore, the existence of a functioning capital market and, perhaps, a state willing to finance and guarantee long-term, large-scale projects with respect to the creation of the built environment. At times of overaccumulation, a switch of flows from the primary to the secondary circuit can be accomplished only if the various manifestations of overaccumulation can be transformed into money capital which can move freely and unhindered into these forms of investment. This switch of resources cannot be accomplished without a money supply and credit system which creates 'fictional capital' *in advance* of actual production and consumption. This applies as much to the consumption fund (hence the importance of consumer credit, housing mortgages, municipal debt) as it does to fixed capital. Since the production of money and credit are relatively autonomous processes, we have to conceive of the financial and state institutions controlling them as a kind of collective nerve centre governing and *mediating* the relations between the primary and secondary circuits of capital. The nature and form of these financial and state institutions and the policies they adopt can play an important role in checking or enhancing flows of capital into the secondary circuit of capital or into certain specific aspects of it (such as transportation, housing, public facilities, and so on). An alteration in these mediating structures can therefore affect both the volume and direction of the capital flows by constricting movement down some channels and opening up new conduits elsewhere.

3 *The tertiary circuit of capital*

In order to complete the picture of the circulation of capital in general, we

have to conceive of a *tertiary circuit of capital* which comprises, first, investment in science and technology (the purpose of which is to harness science to production and thereby to contribute to the processes which continuously revolutionize the productive forces in society) and second, a wide range of social expenditures which relate primarily to the processes of reproduction of labour power. The latter can usefully be divided into investments directed towards the qualitative improvement of labour power from the standpoint of capital (investment in education and health by means of which the capacity of the labourers to engage in the work process will be enhanced) and investment in cooptation, integration and repression of the labour force by ideological, military and other means.

Individual capitalists find it hard to make such investments as individuals, no matter how desirable they may regard them. Once again, the capitalists are forced to some degree to constitute themselves as a class—usually through the agency of the state—and thereby to find ways to channel investment into research and development and into the quantitative and qualitative improvement of labour power. We should recognize that capitalists often *need* to make such investments in order to fashion an adequate social basis for further accumulation. But with regard to social expenditures, the investment flows are very strongly affected by the state of class struggle. The amount of investment in repression and in ideological control is directly related to the threat of organized working-class resistance to the depredations of capital. And the need to coopt labour arises only when the working class has accumulated sufficient power to require cooptation. Since the state can become a field of active class struggle, the mediations which are accomplished by no means fit exactly with the requirements of the capitalist class. The role of the state requires careful theoretical and historical elaboration in relation to the organization of capital flows into the tertiary circuit.

III The circulation of capital as a whole and its contradictions

Figure 3 portrays the overall structure of relations comprising the circulation of capital amongst the three circuits. The diagram looks very 'structuralist-functional' because of the method of presentation. I can conceive of no other way to communicate clearly the various dimensions of capital flow. We now have to consider the contradictions embodied within these relations. I shall do so initially as if there were no overt class struggle between capital and labour. In this way we will be able to see that the contradiction between the individual capitalist and capital in general is itself a source of major instability within the accumulation process.

We have already seen how the contradictions internal to the capitalist class generate a tendency towards overaccumulation within the primary circuit of capital. And we have argued that this tendency can be overcome temporarily at least by switching capital into the secondary or tertiary circuits. Capital has, therefore, a variety of investment options open to

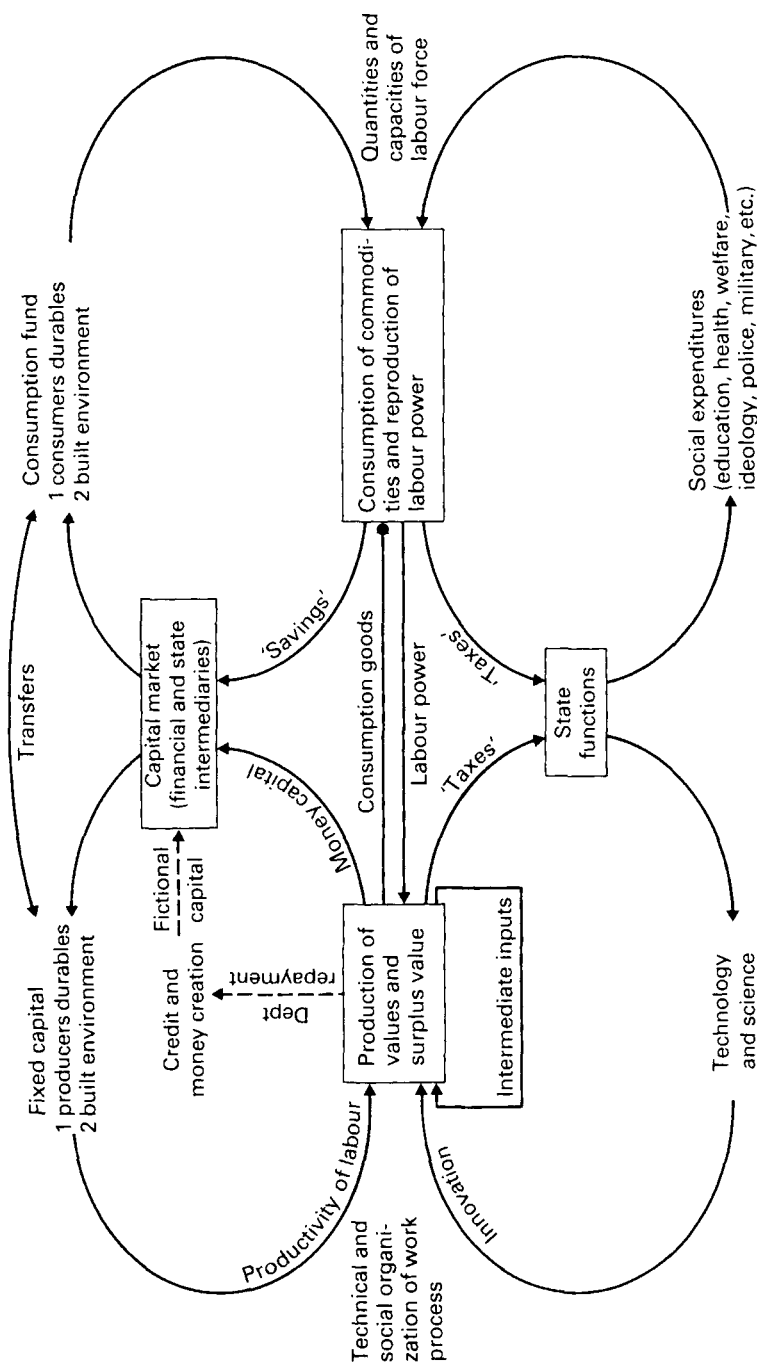


Figure 3 The structure of relations between the primary, secondary and tertiary circuits of capital.

it—fixed capital or consumption fund formation, investment in science and technology, investment in ‘human capital’ or outright repression. At particular historical conjunctures capitalists may not be capable of taking up all of these options with equal vigour, depending upon the degree of their own organization, the institutions which they have created and the objective possibilities dictated by the state of production and the state of class struggle. I shall assume away such problems for the moment in order to concentrate on how the tendency towards overaccumulation, which we have identified so far only with respect to the primary circuit, manifests itself within the overall structure of circulation of capital. To do this we first need to specify a concept of productivity of investment.

1 *On the productivity of investments in the secondary and tertiary circuits*

I choose the concept of ‘productivity’ rather than ‘profitability’ for a variety of reasons. First of all, the rate of profit as Marx treats of it in volume 3 of *Capital* is measured in value rather than pricing terms and takes no account of the distribution of the surplus value into its component parts of interest on money capital, profit on productive capital, rent on land, profit on merchant’s capital, etc. The rate of profit is regarded as a social average earned by individual capitalists in all sectors and it is assumed that competition effectively ensures its equalization. This is hardly a suitable conception for examining the flows between the three circuits of capital. To begin with, the formation of fixed capital in the built environment—particularly the collective means of production—cannot be understood without understanding the formation of a capital market and the distribution of part of the surplus in the form of interest. Second, many of the commodities produced in relation to the secondary and tertiary circuits cannot be priced in the ordinary way, while collective action by way of the state cannot be examined in terms of the normal criteria of profitability. Third, the rate of profit which holds is perfectly appropriate for understanding the behaviours of individual capitalists in competition, but cannot be translated into a concept suitable for examining the behaviour of capitalists as a class without some major assumptions (treating the total profit as equal to the total surplus value, for example).

The concept of productivity helps to by-pass some of these problems if we specify it carefully enough. For the fact is that capitalists as a class—often through the agency of the state—do invest in the production of conditions which they hope will be favourable to accumulation, to their own reproduction as a class and to their continuing domination over labour. This leads us immediately to a definition of a productive investment as one which directly or indirectly expands the basis for the production of surplus value. Plainly, investments in the secondary and tertiary circuits have the *potential* under certain conditions to do this. The problem—which besets the capitalists as much as it confuses us—is to identify the conditions and means which will allow this potential to be realized.

Investment in new machinery is the easiest case to consider. The new

machinery is directly productive if it expands the basis for producing surplus value and unproductive if these benefits fail to materialize. Similarly, investment in science and technology may or may not produce new forms of scientific knowledge which can be applied to expand accumulation. But what of investment in roads, housing, health care and education, police forces and the military, and so on? If workers are being recalcitrant in the work place, then judicious investment by the capitalist class in a police force to intimidate the workers and to break their collective power, may indeed be productive indirectly of surplus value for the capitalists. If, on the other hand, the police are employed to protect the bourgeoisie in the conspicuous consumption of their revenues in callous disregard of the poverty and misery which surrounds them, then the police are not acting to facilitate accumulation. The distinction may be fine but it demonstrates the dilemma. How can the capitalist class identify, with reasonable precision, the opportunities for indirectly and directly productive investment in the secondary and tertiary circuits of capital?

The main thrust of the modern commitment to planning (whether at the state or corporate level) rests on the idea that certain forms of investment in the secondary and tertiary circuits are potentially productive. The whole apparatus of cost-benefit analysis and of programming and budgeting, of analysis of social benefits, as well as notions regarding investment in human capital, express this commitment and testify to the complexity of the problem. And at the back of all of this is the difficulty of determining an appropriate basis for decision-making in the absence of clear and unequivocal profit signals. Yet the cost of bad investment decisions—investments which do not contribute directly or indirectly to accumulation of capital—must emerge somewhere. They must, as Marx would put it, come to the surface and thereby indicate the errors which lie beneath. We can begin to grapple with this question by considering the origins of crises within the capitalist mode of production.

2 *On the forms of crisis under capitalism*

Crises are the real manifestation of the underlying contradictions within the capitalist process of accumulation. The argument which Marx puts forward throughout much of *Capital* is that there is always the potential within capitalism to achieve 'balanced growth' but that this potentiality can never be realized because of the structure of the social relations prevailing in a capitalist society. This structure leads individual capitalists to produce results collectively which are antagonistic to their own class interest and leads them also to inflict an insupportable violence upon the working class which is bound to elicit its own response in the field of overt class struggle.

We have already seen how the capitalists tend to generate states of overaccumulation within the primary circuit of capital and considered the various manifestations which result. As the pressure builds, either the accumulation process grinds to a halt or new investment opportunities are

found as capital flows down various channels into the secondary and tertiary circuits. This movement may start as a trickle and become a flood as the potential for expanding the production of surplus value by such means becomes apparent. But the tendency towards overaccumulation is not eliminated. It is transformed, rather, into a pervasive tendency towards over-investment in the secondary and tertiary circuits. This over-investment, we should stress, is in relation solely to the needs of capital and has nothing to do with the real needs of people which inevitably remain unfulfilled. Manifestations of crisis thus appear in both the secondary and tertiary circuits of capital.

As regards fixed capital and the consumption fund, the crisis takes the form of a crisis in the valuation of assets. Chronic overproduction results in the devaluation of fixed capital and consumption fund items—a process which affects the built environment as well as producer and consumer durables. We can likewise point to crisis formation at other points within our diagram of capital flows—crises in social expenditures (health, education, military repression, and the like), in consumption-fund formation (housing) and in technology and science. In each case the crisis occurs because the potentiality for productive investment within each of these spheres is exhausted. Further flows of capital do not expand the basis for the production of surplus value. We should also note that a crisis of any magnitude in any of these spheres is automatically registered as a crisis within the financial and state structures while the latter, because of the relative autonomy which attaches to them, can be an independent source of crisis (we can thus speak of financial, credit and monetary crises, the fiscal crises of the state, and so on).

Crises are the 'irrational rationalizers' within the capitalist mode of production. They are indicators of imbalance and force a rationalization (which may be painful for certain sectors of the capitalist class as well as for labour) of the processes of production, exchange, distribution and consumption. They may also force a rationalization of institutional structures (financial and state institutions in particular). From the standpoint of the total structure of relationships we have portrayed, we can distinguish different kinds of crises:

a Partial crises which affect a particular sector, geographical region or set of mediating institutions. These can arise for any number of reasons but are potentially capable of being resolved within that sector, region or set of institutions. We can witness autonomously forming monetary crises, for example, which can be resolved by institutional reforms, crises in the formation of the built environment which can be resolved by reorganization of production for that sector, etc.

b Switching crises which involve a major reorganization and restructuring of capital flows and/or a major restructuring of mediating institutions in order to open up new channels for productive investments. It is useful to distinguish between two kinds of switching crises:

- 1 *Sectoral switching crises* which entail switching the allocation of capital from one sphere (e.g. fixed capital formation) to another (e.g. education);
- 2 *Geographical switching crises* which involve switching the flows of capital from one place to another. We note here that this form of crisis is particularly important in relation to investment in the built environment because the latter is immobile in space and requires interregional or international flows of money capital to facilitate its production.

c *Global crises* which affect, to greater or lesser degree all sectors, spheres and regions within the capitalist production system. We will thus see devaluations of fixed capital and the consumption fund, a crisis in science and technology, a fiscal crisis in state expenditures, a crisis in the productivity of labour, all manifest at the same time across all or most regions within the capitalist system. I note, in passing, that there have been only two global crises within the totality of the capitalist system—the first during the 1930s and its Second World War aftermath; the second, that which became most evident after 1973 but which had been steadily building throughout the 1960s.

A complete theory of capitalist crises should show how these various forms and manifestations relate in both space and time. Such a task is beyond the scope of a short article, but we can shed some light by returning to our fundamental theme—that of understanding the urban process under capitalism.

IV 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, circulation, 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.

It may be objected, quite correctly, that these points of integration ignore the 'rural-urban dialectic' and that the reduction of the 'urban process' as we usually conceive of it to questions of built environment formation and reproduction of labour power is misleading if not downright erroneous. I would defend the reduction on a number of counts. First, as a practical matter, the mass of the capital flowing into the built environment and a large proportion of certain kinds of social expenditures are absorbed in areas which we usually classify as 'urban'. From this standpoint the reduction is a useful approximation. Second, I can discuss most of the questions which normally arise in urban research in terms of the categories of the built environment and social expenditures related to the reproduction of labour power with the added advantage that the links with the theory of accumulation can be clearly seen. Third, there are serious grounds for challenging the adequacy of the urban-rural dichotomy even when expressed as a dialectical unity, as a primary form of contradiction within the capitalist mode of production. In other words, and put quite bluntly, if the usual conception of the urban process appears to be violated by the reduction I am here proposing then it is the usual conception of the urban process which is at fault.

The urban-rural dichotomy, for example, is regarded by Marx as an expression of the division of labour in society. In this, the division of labour is the fundamental concept and not the rural-urban dichotomy which is just a particular form of its expression. Focusing on this dichotomy may be useful in seeking to understand social formations which arise in the transition to capitalism—such as those in which we find an urban industrial sector opposed to a rural peasant sector which is only formally subsumed within a system of commodity production and exchange. But in a purely capitalist mode of production—in which industrial and agricultural workers are all under the real domination of capital—this form of expression of the division of labour loses much of its particular significance. It disappears within a general concern for geographical specialization in the division of labour. And the other aspect to the urban process—the geographical concentration of labour power and use values for production and reproduction—also disappears quite naturally within an analysis of the 'rational spatial organization' of physical and social infrastructures. In the context of advanced capitalist countries as well as in the analysis of the capitalist mode of production, the urban-rural distinction has lost its real economic basis although it lingers, of course, within the realms of ideology with some important results. But to regard it as a fundamental conceptual tool for analysis is in fact to dwell upon a lost distinction which was in any case but a surface manifestation of the division of labour.

1 *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, exclusively 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 under-invest 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. Gottlieb’s recent investigation¹ of building cycles in 30 urban areas located in eight countries showed a periodicity clustering between 15 and 25 years. While his methods and framework for analysis leave much to be desired, there is enough evidence accumulated by a variety of researchers to indicate that this is a reasonable sort of first-shot generalization.’ Figures 4, 5 and 6 illustrate the phenomenon. The historical evidence is at least consistent with our argument, taking into account, of course, the material character-

¹ Gottlieb (1976) provides an extensive bibliography on the subject as well as his own statistical analysis. The question of ‘long waves’ of various kinds has recently been brought back into the marxist literature by Mandel (1975) and Day (1976).

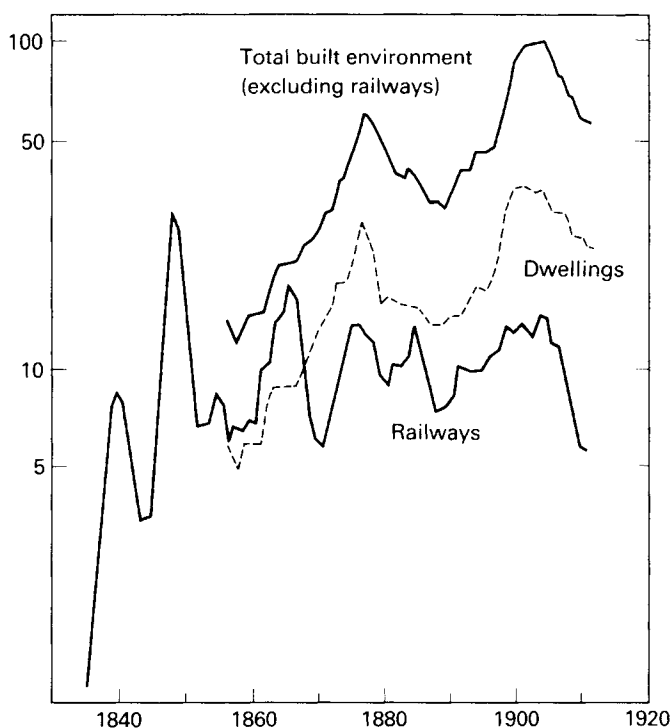


Figure 4 Investment in selected components of the built environment in Britain (million £ at current prices)

istics of the built environment itself and in particular its long life which means that 'instant throw-away cities' are hardly feasible no matter how hard the folk in Los Angeles try.

The immobility in space also poses its own problematic with, again, its

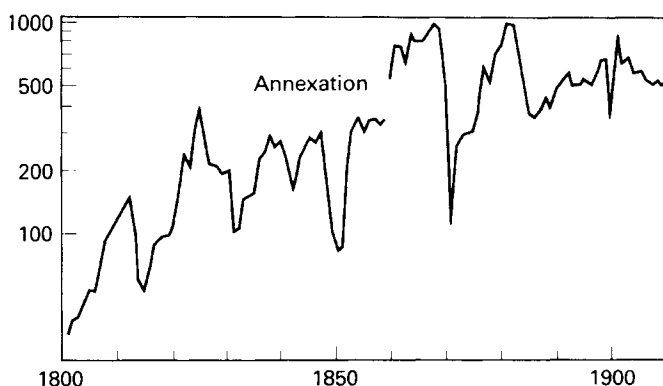
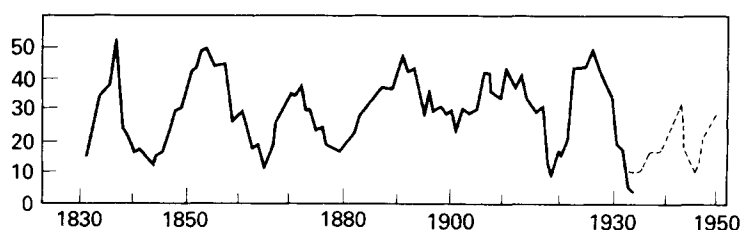
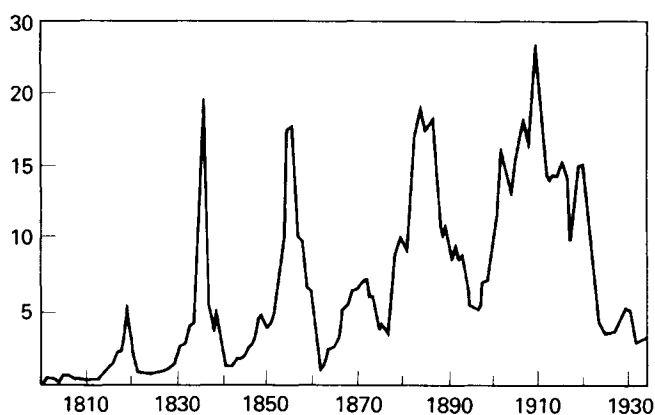


Figure 5 Construction activity in Paris—entries of construction materials into the city (millions of cubic metres). After Rougerie



Building activity per capita in the United States (1913 dollars per capita). After *Brinley Thomas*



Sales of the public lands in the United States (millions of acres of original land entries: US Dept of Agriculture figures)

Figure 6 'Long-waves' in investment in the built environment of the United States

own appropriate mode of response. The historical evidence is, once more, illuminating. In the 'Atlantic economy' of the nineteenth century, for example, the long waves in investment in the built environment moved inversely to each other in Britain and the United States (see Figures 7 and 8). The two movements were not independent of each other but tied via migrations of capital and labour within the framework of the international economy at that time. The commercial crises of the nineteenth century switched British capital from home investment to overseas investment or vice versa. The capitalist 'whole' managed, thereby, to achieve a roughly balanced growth through counterbalancing oscillations of the parts all encompassed within a global process of geographical expansion.² Uneven spatial development of the built environment was a crucial element to the achievement of relative global stability under the aegis of the *Pax Britannica* of the nineteenth century. The crises of this period were either of the partial or switching variety and we can spot both forms of the latter—geographical and sectoral—if we look carefully enough.

² The main source of information is Brinley Thomas (1972 edition) which has an extensive bibliography and massive compilations of data.

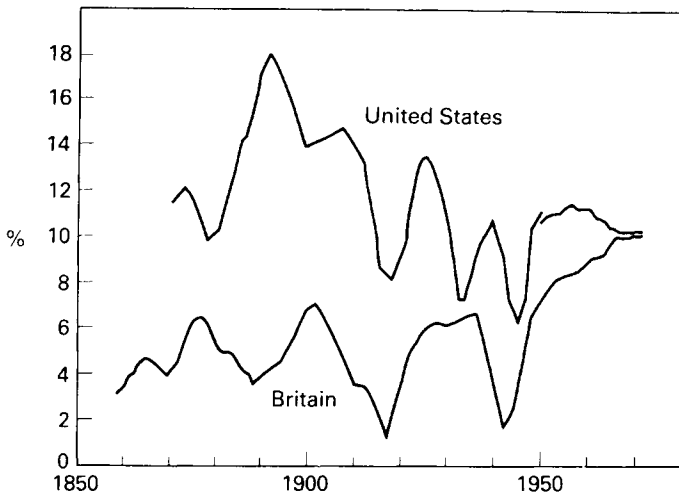


Figure 7 Different rhythms of investment in the built environment—Britain and the United States (per cent of GNP (USA) and GDP (Britain) going to investment in the built environment—5-year moving averages)

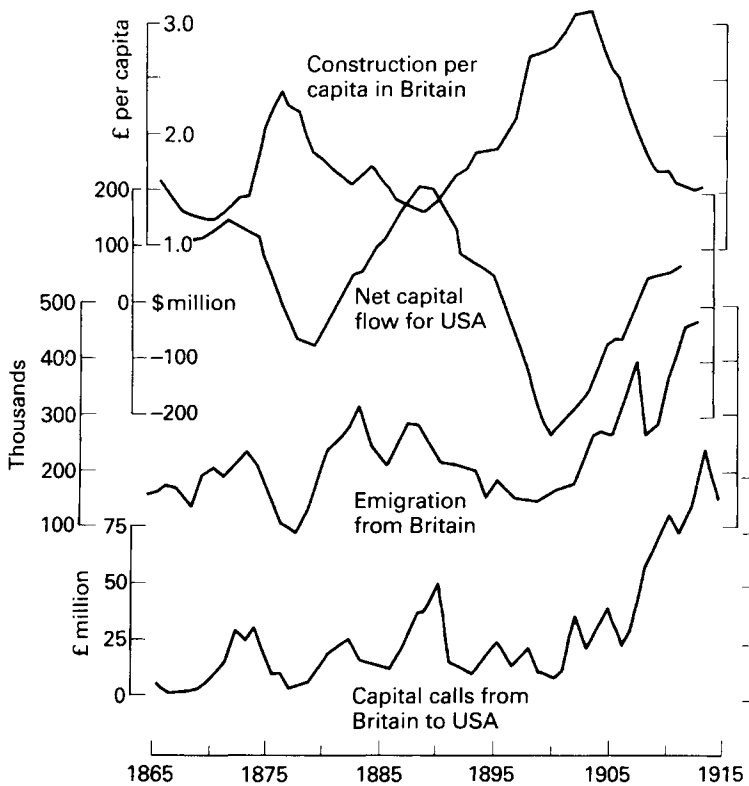


Figure 8 Uneven development in the Atlantic economy—Britain and the United States. After Brinley Thomas.

The global crises of the 1930s and the 1970s can in part be explained by the breakdown of the mechanisms for exploiting uneven development in this way. Investment in the built environment takes on a different meaning at such conjunctures. Each of the global crises of capitalism was in fact preceded by the massive movement of capital into long-term investment in the built environment as a kind of last-ditch hope for finding productive uses for rapidly overaccumulating capital. The extraordinary property boom in many advanced capitalist countries from 1969–73, the collapse of which at the end of 1973 triggered (but did not *cause*) the onset of the current crisis, is a splendid example. I append some illustrative materials in Figure 9.

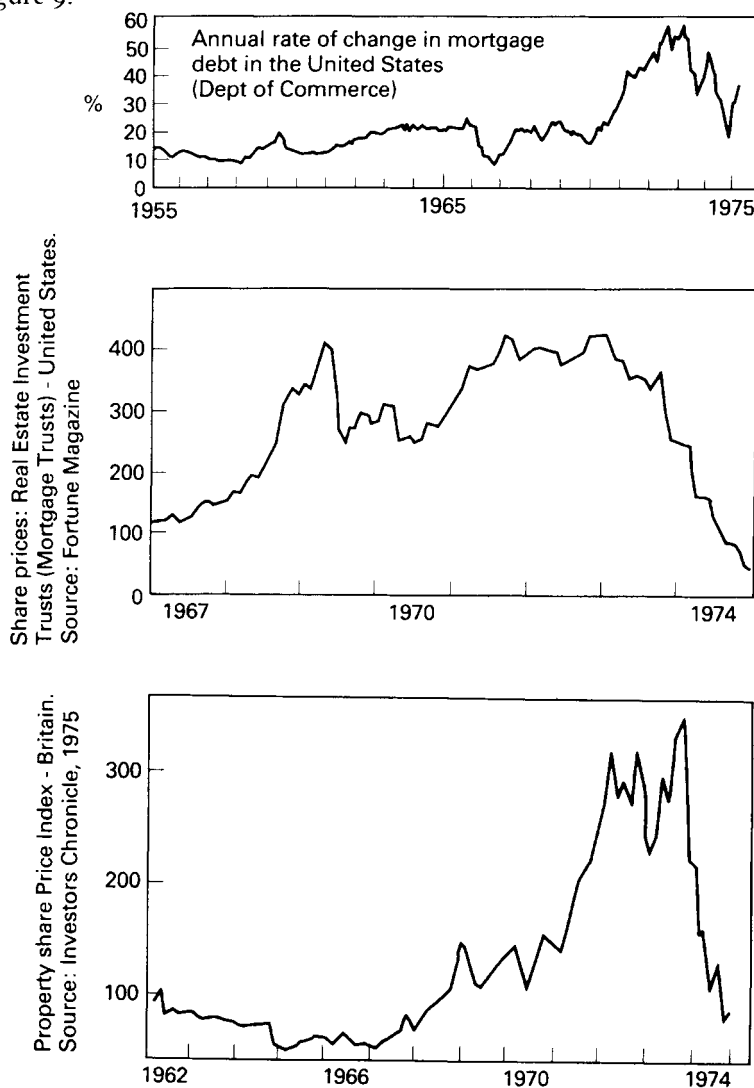


Figure 9 Some indices of the property boom—Britain and United States

While I am not attempting in any strict sense to 'verify' the theory by appeal to the historical record, the latter most certainly is not incompatible with the broad outlines of the theory we have sketched in. Bringing the theory to bear on the history is in fact an extraordinarily difficult task far beyond the scope of a short paper. But rather than make no argument at all I will seek to illustrate how the connections can be made. I will therefore look a little more closely at the two aspects of the theory which are crucial—overaccumulation and devaluation.

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.³

It would be difficult to argue that during this period the surplus of capital arose out of the tendency to overaccumulate as we have specified it. The latter is, strictly speaking, a phenomenon which arises only in the context of the capitalist mode of production or in capitalist social formations which are relatively well-developed. The 'long waves' of investment in the built environment pre-date the emergence of industrial capitalism and can be clearly identified throughout the transition from feudalism.⁴ We can see, however, a strong relationship between these 'long waves' and fluctuations in the money supply and in the structure of capital markets. Perhaps the most spectacular example is that of the United States (Figure 6)—when Andrew Jackson curbed land deals in paper currency and insisted on *specie* payment in 1836, the whole land development process came to a halt and the financial reverberations were felt everywhere, particularly by those investing in the built environment. The role of 'fictional capital' and the credit and money supply system has always been fundamental in relationship to the various waves of speculative investment in the built environment.

When, precisely, the tendency towards overaccumulation became the main agent producing surplus capital and when the 'long waves' became

³ 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.

⁴ The best study is that by Parry Lewis (1965)

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. The 'nerve centre' which controls and mediates the relations between the primary and secondary circuits of capital increasingly functioned after 1830 or so according to a pure capitalist logic which affected both government and private activity alike. It is perhaps symptomatic that the fall of the July monarchy in France in 1847 was directly related to the indebtedness of that regime incurred in the course of promoting a vast programme of public works (many of which were not very productive). When the financial crisis, which had its origins in England and the extraordinary speculation in railroad construction, struck home in late 1846 and 1847, even the state debt of France could not withstand the shock.⁵ For good reason, this crisis can perhaps be regarded as the first really solid and all-pervasive crisis in the capitalist world.

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.

2 *The contradictory character of investments in the built environment*

We have so far treated the process of investment in the built environment as a mere reflection of the forces emanating from the primary circuit of

⁵ The study by Girard (1952) is truly excellent.

capital. There are, however, a whole series of problems which arise because of the specific characteristics of the built environment itself. We will consider these briefly.

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 re-couped 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).⁶ 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.⁷

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 which themselves

⁶ I have attempted a much more extensive treatment of the transport problem in Harvey (1975).

⁷ See Isard (1942) for some interesting material.

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.

V 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. We must, therefore, seek to incorporate some understanding of it into any analysis of the urban process under capitalism. By switching our window on the world—from the contradictory laws of accumulation to the overt class struggle of the working class against the affects of those laws—we can see rather different aspects of the same process with greater clarity. In the space that follows I will try to illustrate the complementarity of the two viewpoints.

In one sense, class struggle is very easy to write about because there is no theory of it, only concrete social practices in specific social settings. But this immediately places upon us the obligation to understand history if we are to understand how class struggle has entered into the urban process. Plainly I cannot write this history in a few pages. So I will confine myself to a consideration of the contextual conditions of class struggle and the nature of the bourgeois responses. The latter are governed by the laws of accumu-

lation because accumulation always remains the means whereby the capitalist class reproduces itself as well as its domination over labour.

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.

Consider, first, the quantitative aspects of labour power in relation to the needs of capitalist accumulation. The greater the labour surplus and the more rapid its rate of expansion, the easier it is for capital to control the struggle in the workplace. The principle of the industrial reserve army under capitalism is one of Marx's most telling insights. Migrations of labour and capital as well as the various mobilization processes by means of which 'unused' elements in the population are drawn into the workforce are manifestations of this basic need for a relative surplus population. But we also have to consider the costs of reproduction of labour power at a standard of living which reflects a whole host of cultural, historical, moral and environmental considerations. A change in these costs or in the definition of the standard of living has obvious implications for real-wage demands and for the total wage bill of the capitalist class. The size of the internal market formed by the purchasing power of the working class is not irrelevant to accumulation either. Consequently, the consumption habits of the workers are of considerable direct and indirect interest to the capitalist class.

But we should also consider a whole host of qualitative aspects to labour power encompassing not only skills and training, but attitudes of mind, levels of compliance, the pervasiveness of the 'work ethic' and of 'possessive individualism', the variety of fragmentations within the labour force which derive from the division of labour and occupational roles, as well as from older fragmentations along racial, religious and ethnic lines. The ability and urge of workers to organize along class lines depends upon the creation and maintenance of a sense of class consciousness and class solidarity in spite of these fragmentations. The struggle to overcome these fragmentations in the face of divide and conquer tactics often adopted by the capitalists is fundamental to understanding the dynamics of class struggle in the workplace.

This leads us to the notion of *displaced* class struggle, by which I mean class struggle which has its origin in the work process but which ramifies and reverberates throughout all aspects of the system of relations which capitalism establishes. We can trace these reverberations to every corner of the social totality and certainly see them at work in the flows of capital

between the different circuits. For example, if productivity fails to rise in the workplace, then perhaps judicious investment in 'human capital' (education), in cooptation (homeownership for the working class), in integration (industrial democracy), in persuasion (ideological indoctrination) or repression might yield better results in the long run. Consider, as an example, the struggles around public education. In *Hard Times*, Dickens constructs a brilliant satirical counterpoint between the factory system and the educational, philanthropic and religious institutions designed to cultivate habits of mind amongst the working class conducive to the workings of the factory system, while elsewhere he has that archetypal bourgeois, Mr Dombey, remark that public education is a most excellent thing provided it teaches the common people their proper place in the world. Public education as a right has long been a basic working-class demand. The bourgeoisie at some point grasped that public education could be mobilized against the interests of the working class. The struggle over social services in general is not merely over their provision, but over the very nature of what is provided. A national health care system which defines ill health as inability to go to work (to produce surplus value) is very different indeed from one dedicated to the total mental and physical well-being of the individual in a given physical and social context.

The socialization and training of labour—the management of 'human capital' as it is usually called in the bourgeois literature—cannot be left to chance. Capital therefore reaches out to dominate the living process—the reproduction of labour power—and it does so because it must. The links and relations here are intricate and difficult to unravel. I will consider various facets of activity within the dwelling place as examples of displaced class struggle.⁸

1 *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

⁸ The account which follows is a summary of Harvey (1977).

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 *débâcle* 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.

2 *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.

3 *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-tried 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).

4 *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.

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 (see Figure 5). 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.

VI A concluding comment

I shall end by venturing an apology which should properly have been set forth at the beginning. To broach the whole question of the urban process under capitalism in a short article appears a foolish endeavour. I have been forced to blur distinctions, make enormous assumptions, cut corners, jump from the theoretical to the historical in seemingly arbitrary fashion, and commit all manner of sins which will doubtless arouse ire and reproach as well as a good deal of opportunity for misunderstanding. This is, however, a distillation of a framework for thinking about the urban process under capitalism and it is a distillation out of a longer and much vaster work (which may see the light of day shortly). It is a framework which has emerged as the end-product of study and not one which has been arbitrarily imposed at the beginning. It is, therefore, a framework in which I have great confidence. My only major source of doubt, is whether I have been able to present it in a manner which is both accurate enough and simple enough to give the correct flavour of the potential feast of insights which lie within.

Johns Hopkins University

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