

SOCIO-ECONOMIC RELATIONS AND URBAN
SPATIAL FORMATION

by



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ABSTRACT

This thesis constructs a theoretical framework for the application of Marx's work to urban spatial formation. It is based on Marx's concept of the dialectic as internal relations, examining the concept with regard to the socio-spatial dialectic and the relations of production under capitalism. Marx's theory is applied to urban spatial formation with a focus on the rise of urbanism and suburbanization as manifestations of the inherent relations of the capitalist mode of production. Urbanism, as a set of relations, is discussed through the relations of production, consumption, accumulation, and centralization. The spatial manifestations of urbanization and suburbanization are considered in light of these relations and the inherently spatial moment of production, circulation; with specific emphasis on the spatial expansion of the market and the annihilation of space by time. The study of relations serves to explain more than the mechanisms involved in spatial formation; rather, it explains the dialectical relations between socio-economic and urban spatial formation.

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CHAPTER I

INTRODUCTION

Marxist geographers have attempted to apply Marx's theory of socio-economic relations to spatial formation. However, much of this literature abstracts the theory from its inherent framework. The purpose of this thesis is to offer a theoretical framework for the analysis of urban spatial formation which is consistent with Marx's writings on capitalist socio-economic relations

Marx's concept of the dialectic is the foundation for his theory of capitalist relations. These relations are the primary unit of inquiry in his work, and his categories are defined relationally, rather than objectively. However, much of the research conducted by Marxist geographers applies objectified categories, rather than the inherent relations of the capitalist mode of production. This approach is misleading, as it abstracts elements or categories used in Marx's work and applies them out of context in a traditional framework.

Marx offers a unique way of looking at the world and its relations; a philosophical perspective based on internal relations. His contributions have generally been misinterpreted by traditional social scientists who search for fixed relations and categories. The scientific method, which forms the base of most modern research, revolves around the concept of causality. It is difficult, therefore,

to break away from this tradition and think dialectically, as it goes against the very essence of one's educational experience. This is why many of Marx's writings are incomprehensible to the "modern mind", as they deal not in causal, but dialectical relations.

The application of Marx's work to spatial formation should be dialectical. This is difficult for traditional social scientists to achieve. They often find Marx ambiguous, as he allows his terms to change meaning as their relations change. This is because the essence of Marx's relations is not absolute and unchanging, and his terms must reflect this concept. As the "modern mind" searches for causality in Marx's work, it finds that what may be interpreted as causal in one instance is contradicted in another. This is the effect of abstracting one theory into another theoretical framework.

This thesis attempts to ground urban spatial research in Marx's theoretical framework through an analysis and extension of his theory. The philosophical and theoretical bases of Marx's work are introduced, and traditional and Marx's theory distinguished. From this, Marx's writings can be extended to an urban spatial application without perverting the essence of his theory.

Chapter 2 presents a review of the basic elements of Marx's work. Dialectics, which offer the philosophical foundation of his theory, and interpretations of dialectics are discussed in order to clarify the interpretation and perspective used in this thesis. The concept of relations is central to Marx's dialectic and must be understood in the context of capitalist formation. The socio-spatial

dialectic is also examined as a basis for the spatial application of Marx's theory. Finally, Marx's theory of socio-economic relations under the capitalist mode of production is summarized and serves as a framework in which capitalist spatial formation can be analyzed.

Chapter 3 examines the literature which attempts to apply Marx's theory of socio-economic relations to urbanization and suburbanization. It outlines the basic inconsistencies between these applications and Marx's theory. Focusing on several exemplary works, it is determined that the search for individual actors or mechanisms is common in the study of urban spatial formation, and that objective categories, rather than relations, are the primary unit of research.

Chapter 4 offers a theoretical framework for the analysis of urban spatial formation. The relations between spatial formation and socio-economic formation under the capitalist mode of production are discussed. Urbanism, the set of relations which gave rise to the urban spatial structure, is a precondition of the present urban/suburban form. Thus, Marx's writings on town and country and the rise of industrial urbanism are summarized. His theoretical work is then extended to suburban formation and its supportive and contradictory relations in capitalist accumulation.

Chapter 5 summarizes the thesis and offers suggestions for future research. As this thesis attempts to construct a theoretical framework, this chapter offers examples of issues to which this theory can be applied.

CHAPTER II

THEORETICAL FRAMEWORK

Interpretations of Marx's work vary widely between Marxist scholars. This chapter provides an outline of the interpretation used in this thesis. One of the most difficult aspects of Marx's writings to understand is his use of terminology, as it varies throughout his work. Marx does not offer fixed definitions of categories; rather, he assigns them a relational interpretation. For this reason, a search for simple definitions of Marx's categories and terminology is both futile and misleading.

The following will serve as the foundation for interpretation and extension of Marx's use of dialectics and his theory of socio-economic relations. Through a review of dialectics and Marx's socio-economic theory this chapter will direct an interpretation and application of Marx's work.

2.1 Dialectics

The basis of Marx's work is the use of dialectics, which is a philosophy of relations. This perspective identifies categories not as objects but as sets of relations. Thus, categories change as their relations change. Marx offers a view of the world in which these categories, or relations, are internally related to a totality. The

totality addressed in this thesis is that of socio-economic and spatial relations in the capitalist mode of production. These categories are related to the totality dialectically. Each is composed of relations which support, contradict, and express the totality.

In order to understand the dialectical use of categories, one must understand that these are not objects and cannot be reduced to objects. They contain the object and the relations surrounding that object. Labor, for example, is defined with respect to the relations of production, such that capitalist labor contains the relations of the capitalist mode of production. Labor, as such, is not reducible to an objective category.

Categories, as sets of relations, are clearly not autonomous, as each holds within itself the relations of others and the totality. Therefore, one can examine the relations of the totality as expressed in categories. An identity exists between categories, and between categories and the totality. By identity, what is meant is that relations between and within categories reflect socio-economic relations as a totality. Each category expresses the totality and contains an identity with it.

As every object or abstract relation exists within a totality and in relation to that totality, any change in these relations changes the relations of the totality. Traditional research examines the causal relations observable between specific objects or sets of objects. Dialectics delves deeper to understand how a change in any set of relations changes the relations of the totality. It goes beyond

the simple observable relations, expressed most clearly in cause and effect relations, to understand relations as they exist in a totality.

What makes this concept of relations difficult to understand is that it is not based on causality. Categories are internally related, such that a change in any relation, or set of relations, necessarily implies relational changes in the totality. This is not causal but dialectical, as any change is a change in relational identities. This should not be interpreted as mutual causality, as such an approach assumes autonomous categories, or objects, interacting. The most difficult, and most critical, point to understand is that dialectics studies relations not objects.

Traditional inquiry studies objects and their interactions and effects on one another. Here, the change in objective form is central. Dialectics, however, focuses on relations and the formation of these relations. Because it studies categories as relations the notion of causality becomes a moot point, as any change is relational to the totality.

Dialectics, as applied to the study of the capitalist mode of production, involves not only the socio-economic relations observable at a given time, but also the relations in past and future times. Socio-economic relations cannot be isolated in time as they are internally related to past formation, such that they contain the support and contradictions which came before them. As contradictions arise in socio-economic relations new relations are brought forth from these contradictions. The same is true for the supportive aspects

of these relations which serve as the foundation for continued formation. Each period reflects past relations and serves as a basis for future formation. Dialectical relations are therefore historical as they contain the relations of the past..

In Marxist literature there appear to be two general interpretations of Marx's concept of dialectics. The first, and more widely accepted interpretation is best expressed by the French philosopher, Louis Althusser, who offers a structuralist view of Marx's social relations. A second, and less known perspective is offered by Bertell Ollman, who bases his interpretation on a philosophy of internal relations. The concept of dialectics can be better understood by analyzing the differences between these interpretations, and understanding the theoretical and practical implications of these differences.

Althusser (1977, 193) defines the dialectic as "the study of contradiction in the very essence of objects". He uses this dialectic to study society, seen as a 'pre-given complex structured whole'. He argues that Marxism recognizes a complex structure of concrete objects whose development is determined by this pre-given structure. His main focus, therefore, is on the identification of dominant and determinant categories within this structure. He claims that "the complex whole has the unity of a structure articulated in dominance". (ibid, 202) This approach identifies a structured whole which is the product of categories within that whole which dominate and determine each other, and in turn the whole.

More explicitly, Althusser contends that there exist categories

which act and react with one another. This interaction gives rise to a complex structured whole which contains these relations. The form and structure taken by the whole is determined by the dominant structures within the whole. The whole, in turn, determines the form and structure of the categories which gave rise to it.

Althusser argues that the motor force of the formation of structure is contradiction, which constitutes the conditions of the existence of the complex whole. These contradictions within the structured whole are the conditions necessary for the relations of dominance and determination from which the whole is formed. He makes his position on the relations of dominance and determination quite clear.

Please do not misunderstand me: this mutual conditioning of the existence of the 'contradiction' does not nullify the structure in dominance that reigns over the contradictions and in them (in this case, determination in the last instance by the economy). Despite its apparent circularity this conditioning does not result in the destruction of the structure of domination that constitutes the complexity of the whole, and its unity. Quite the contrary, even within the reality of the conditions of existence of each contradiction, it is the manifestation of the structure in dominance that unifies the whole. *This reflection of the conditions of existence of the contradiction within itself, this reflection of the structure articulated in dominance that constitutes the unity of the complex whole within each contradiction, this is the most profound characteristic of the Marxist dialectic, the one I have tried recently to encapsulate in the concept of 'overdetermination'. (ibid, 206)*

He contends that contradiction is determined by the structured whole and is assigned its role and essence by that whole. There is, in a given stage of development, a principle contradiction which plays a

determinant role in the concrete variations and mutations of the structured whole. He maintains that any practical application of Marxism must identify and focus on the principle determinant category or contradiction at each stage of development. Through this approach one can understand the structural relations of the complex whole and effect change within it.

Ollman's (1976) interpretation of Marx's use of the dialectic is quite different from Althusser's. He argues that the basic unit of reality for Marx is a relation, not an object. He focuses on the philosophy of internal relations as the key to understanding Marx's dialectic. No factor of society is autonomous, it is internally related to all others and to society as a whole. Each is contained within and contains the relations of the other, and is expressed, and expresses the other. This concept of internal relations rejects the notion of causality because the search for causes does not consider the relations from which such 'causes' arise.

Dialectical inquiry based on the philosophy of internal relations "is best described as research into the manifold ways in which entities are internally related". (ibid, 61) Ollman contends that in order to study categories within the dialectical framework they must not be studied as abstractions. In other words, the ties between the category and society must not be obscured, as these ties are essential to understanding the category's relations as a whole.

He maintains that the 'essence' of any system or factor can only be understood through its relations. This essence contains and

transcends those relations which are directly observable; therefore, the observation of structures, with their implied stability, misses the crucial point of interrelations. He argues that what is observable often runs counter to the actual interrelations of society.

Ollman's essential argument is that Marx's dialectic, and his use of it, are based on the philosophy of internal relations. These relations are the essential units of inquiry in his work, not abstracted or objectified categories. Any application of dialectics in a Marxian framework should therefore be concerned with these relations and an understanding of relations in society. This cannot be achieved at a level of appearances; rather, it is a search for the essential relations which underlie observable relations, and which aid in the explanation and understanding of society as a whole.

There are radical divergences between Althusser's concept of 'over-determination' and Ollman's philosophy of internal relation. Both base their work on an interpretation of Marx's dialectic. Althusser, however, seems unable to totally transcend the traditional causal framework. Although he derives a concept of structure dialectically through the relations of categories, he then reifies that structure as a 'pre-given complex whole'. This structure is deemed dominant and reifies the very categories which gave rise to it. In turn, a determinant category or contradiction then reifies the dominant structure, and so on. This reification through determination can be viewed simply as causal relations between autonomous categories. Such an approach, although it may have its very roots in dialectics, is in application

little more than a bastard of cause and effect models and dialectics.

Ollman's interpretation offers a philosophy in which causal relations are of little relevance. Relations are viewed as internal such that factors are not necessarily causally related. Thus, categories contain identities with the totality and each other. This interpretation seems to explain Marx's use of categories and relations better than Althusser's does. It enables one to understand the concept of identity and of relational categories where Althusser deals with determination and seemingly fixed categories. Therefore, Ollman's interpretation is more applicable to the conceptual framework outlined in this chapter.

2.2 Socio-Spatial Dialectic

The subject of a socio-spatial dialectic has been addressed from various perspectives. Castells (1977) applies an Althusserian approach to this problem. He argues that space should be studied like any other real object, by identifying its structure and the elements which determine its formation. Spatial structure should be examined within the context of the social structure as a whole. Castells' basic theoretical argument is that "to analyze space as an expression of social structure amounts, therefore, to studying its shaping by element of the economic system, the political system and the ideological system, and by their combinations and the social practices that derive from them". (126)

Barrios (1977) studies the spatial expression of society as a product of the relations of society. This approach examines the

appropriation of physical space by dominant classes which creates political space. It is argued that political space is relatively permanent compared to economic space which fluctuates over time. Thus, it is the state which determines spatial formation.

Similarly, Lefebvre (1976) argues that space is a product of political and ideological processes. He arrives at this perspective through a study of the planning process in France. His conclusions, therefore, arise out of an observation that this process has formed the physical space in a political manner.

In both Barrios' and Castells' work there is a search for determinant categories or relations. Thus, space is seen to be objectified, and its relations with social formation are not internal. Space, as such, is a product of social formation.

The socio-spatial dialectic transcends these observable relations; it includes those relations of identity which are internal to the categories. Santos (1977) addresses the concept of socio-spatial formation as a category rather than simple socio-economic formation. He argues that

Mode of production, social formation, space—these three categories are interdependent. All the processes which, together, make up the mode of production (production properly speaking, circulation, distribution, consumption) are historically and spatially determined in a movement of the whole, and through social formation. (5)

He sees society and space as interrelated and related to society as a whole. He considers space and society as inseparable and inherent in social formation. This goes beyond other attempts to understand the

dialectical relations of space and society. However, when he argues that spatial form can be seen as a language of the mode of production it must be remembered that observable spatial form is limited in its ability to express all underlying relations of society. Therefore, although one can view space as an expression of society it does not necessarily lead to an understanding of society as a whole, as the study of any single category cannot lead to a complete mirror image of social relations. Space is internally related to society as a whole and must be incorporated into the study of socio-economic formation. However, space must not be the only focus of study, as such an approach would constitute spatial fetishism.

Space and social formation can be examined dialectically as they are internally related to the capitalist mode of production. Space, from this perspective, is not objective space, it is a set of relations, relational space. Fetishism of space is the objectification of spatial relations. Space is thus considered an object of human processes which can be examined separately from other elements within the socio-economic structure. Spatial fetishism is a tradition among geographers who study space as an object. Space is studied in its concrete expression, land use, inevitably ignoring the concept of socio-spatial dialectics. This is where classical geography separates space and society to make space autonomous.

An example of such an approach can be seen in the residential choice models of Alonso (1964) and Muth (1969). These models treat space objectively by examining land use. Muth argues that "many

features of city structure and urban land use can be explained without reference to the heritage of the past". (47) This perspective deals with space as separable from social, as well as spatial, formation. Spatial fetishism denies the internally related nature of categories, and regards space simply as an object of socio-economic processes.

Much of the difficulty in the application of Marx's work in a spatial context arises out of the constraints within traditional geographic approaches. It can be seen in chapter 3, below, that attempts to apply Marx's work to spatial formation often fall victim to spatial fetishism. Without an understanding of the relational nature of dialectics this will continue to be a stumbling block for Marxist geographers.

2.3 Socio-Economic Relations

Having discussed dialectics as the foundation for Marx's work, it is important to examine his concept of socio-economic relations in the context of the capitalist mode of production. Marx's seemingly ambiguous use of terminology and categories becomes apparent here, and its dialectical nature must be kept in mind in order to understand the relations outlined below.

The capitalist mode of production is characterized by sets of relations which serve the production of commodities and surplus value, as well as the reproduction of capitalist production. The relations of capitalist production can be understood through the examination of both their economic and social aspects. This section examines the

socio-economic relations of production, consumption, accumulation, and distribution of commodities as outlined in Marx's writings.

2.3.1 Economic Relations

In the capitalist mode of production the product takes the form of commodity. Commodities are products which contain both a use-value and an exchange-value. Thus, commodities satisfy needs either directly, as exemplified by personal consumption, or indirectly, as exemplified by productive consumption.

Commodities are exchanged from owners who find no use-value in them to those whose needs are satisfied by the commodities. This constitutes the social circulation of commodities. The process of circulation and exchange is complete when commodities are exchanged and drop out of sphere of exchange through consumption.

The process of circulation does not create value. The value of a commodity can, however, be expanded through the addition of fresh labor. Therefore, as owners of commodities come into contact with each other through the process of circulation and add labor to the commodity, its value can be expanded. For example, if the owner of cloth enters into an exchange with a tailor, and the latter adds his labor to produce a shirt, the value of the initial material has been expanded. It is in this manner that capital is created, "it must have its origin both in circulation and yet not in circulation". (Marx, 1967 I, 166)

Capitalist production is not, however, "merely the production

of commodities, it is essentially the production of surplus-value". (ibid, 509) The laborer adds to the value of a commodity through productive labor. "The laborer alone is productive, who produces surplus value for the capitalist, and thus works for the self-expansion of capital" (ibid).

The surplus-value created through production is either consumed or accumulated. Both processes serve in the reproduction of the mode of production. Reproduction, or the continuity of the production process, "sooner or later, and of necessity converts every capital into accumulated capital, or capitalized surplus-value". (ibid, 570) This is the basis of production and reproduction within capitalism. The production of surplus-value through the production and expansion of the value of commodities serves as a fund for both consumption, in terms of wages and profits, and accumulation, in the form of capital.

The economic relations of capitalist production serve to explain the relations of production to other economic spheres of capitalism. Production and consumption are internally related elements of the capitalist mode of production. They are simultaneously the same and opposite. Just as consumption is productive in nature it is also the antithesis. With respect to the previous discussion of the relations of production, consumption produces production in one respect because a "product becomes a real product only through consumption". (Marx, 1970, 131) Therefore, only through consumption is there both a use-value and an exchange-value. Beyond completing the process of production, consumption creates the need for new production. Consumption is the necessary

precondition for production. Production also produces consumption. Consumption cannot exist without an object; it is the process of production that creates consumption. Further, production determines the form of consumption. "Production thus produces not only the object of consumption but also the mode of consumption, not only objectively but also subjectively. Production therefore creates the consumer" (ibid, 132). Finally, production creates a need for a product. "Production accordingly produces not only an object for the subject, but also a subject for the object" (ibid, 133).

Although it could be argued that production and consumption are simply identical, this eliminates the concept of capital-forming surplus-value. Therefore, consumption must be viewed not as merely identical to production, but as a factor of production. It is not only the origin of the realization of production, but also a factor in the reproduction and perpetuation of the mode of production through productive consumption. In other words, "the individual produces a certain article and turns again into himself by consuming it; but he returns as a productive and self-reproducing individual". (ibid, 134)

All products are not consumed; that part of production which is not forms surplus-value. The capitalist mode of production does not merely consist of production and consumption as mirror images of the other. Beyond the production and circulation of commodities, surplus-value is formed through the addition of fresh labor, as previously discussed. This surplus-value is the basis of capitalism. "Surplus-value is convertible into capital solely because the surplus-product, whose

value it is, already comprises the material elements of new capital" (Marx, 1967 I, 581).

The conversion of surplus-product into capital is the process of accumulation. This product is converted into factors of production and sustenance. Accumulation is therefore the increase of capital through the reproduction of that capital.

The nature of accumulation is spiral, as capital is reproduced on a progressively increasing scale. This is because every accumulation or formation of new capital becomes a means for new accumulation. "With the increasing mass of wealth which functions as capital, accumulation increases the concentration of that wealth in the hands of individual capitalists, and thereby widens the basis of production on a large scale and of the specific methods of capitalist production" (ibid, 625). From this comes what Marx calls the "historical mission of the bourgeoisie": "accumulation for accumulation's sake, production for production's sake". (ibid, 595)

Beyond this gradual increase of capital through accumulation, centralization works in a similar manner to "complete the work of accumulation". (ibid, 627) Centralization is distinct from accumulation; it does not arise directly from reproduction, but is the process of capital growth "in one place to a huge mass in a single hand, because it has in another place been lost by many". (ibid, 626) Centralization may encourage or be encouraged by accumulation, but their processes are distinct. However, as centralization enables the extension of the scale of the operations of industrial capitalists, the

economic effect of both accumulation and centralization are the same. Therefore, accumulation and centralization are factors of the production process which create capital: "accumulation increases the material amenable to centralization", and centralization "completes the work of accumulation by increasing the scale of production". (ibid, 626-7)

Between production and consumption, distribution steps in. Distribution is determined by the given structure of production and is itself a product of that production. At the most superficial level, distribution is the distribution of products or commodities. It is therefore viewed from the common perspective as arising naturally from human production generally, rather than from a specific mode of production.

Distribution relations are factors of production as well as consumption. The distribution of the means of production serves in the perpetuation and reproduction of the necessary production relations. This distribution affects not only the production of capital through accumulation, but also through centralization by a change in the distribution of already existing capital, i.e., the altering of the quantitative grouping of such capital.

"The distribution of the members of society among the various types of production" is another form of distribution within the production process. (Marx, 1970, 136) This distribution affects capital by increasing or decreasing the concentration of labor in various areas of production, to increase accumulation.

Distribution relations—such as wages and profit—presuppose

definite forms and relations of production--wage-labor and capital.

"The specific distribution relations are thus merely the expression of the specific historical production relation" (Marx, 1967 III, 882).

Distribution is determined by production, and reproduction is affected by distribution. Therefore, "to examine production divorced from this distribution which is a constituent part of it, is obviously idle abstraction; whereas conversely the distribution of products is automatically determined by that distribution which forms a primary factor of production". (Marx, 1970, 137)

2.3.2 Social Relations

The economic relations of capitalist production presuppose certain social relations. Beyond the economic aspects of production specific social relations arise which support and contradict the relations of the mode of production. There exist, in the simplest instance, two social classes in capitalism, the property owners and the workers who are propertyless. This arises out of the necessary relations of production in which labor is added to materials, creating surplus value and capital. Without the separation of workers and capitalists, accumulation of capital would not be possible. Thus, "the worker sinks to the level of a commodity and becomes indeed the most wretched of commodities".

(Marx, 1977, 66)

The worker becomes a commodity, as his labor is sold on the market. His labor is added to materials to create surplus-value for the capitalists. The worker receives wages for the labor which he gives, the capitalist receives surplus-value for nothing that he gives.

The worker's labor, in its objective form as a product, is alienated from him. "The object which labor produces--labor's product--confronts it as something alien, as a power independent of the producer" (ibid, 68). Thus, the worker's relations to his product are alienated relations.

This alienation is manifest not only in the objects of production, but also in the production process. Production itself must be "active alienation, the alienation of activity, the activity of alienation", as it produces alienated products. (ibid, 70) Labor is alienated in several ways. First, the labor itself is external to the worker, "it does not belong to his intrinsic nature". Second, the worker's labor is therefore forced labor as it is coerced rather than voluntary. Labor as such is "merely a means to satisfy needs external to it". (ibid, 71) Finally, the worker's labor is itself alienated from the worker as it belongs to someone else. The worker's labor is sold as a commodity and is thus alienated from him.

The worker's relations with both his product and the production activity are alienated. Thus, his activity and its products are turned against him. "The worker becomes all the poorer the more wealth he produces, the more his production increases in power and size. The worker becomes an even cheaper commodity the more commodities he creates. The devaluation of the world of men is in direct proportion to the increasing value of the world of things" (ibid, 68). The worker produces objects which are alienated from him, they serve to increase the worker's role as commodity, and so on in a perpetual reproduction of the socio-economic relation.

2.4 Summary

Marx's dialectic offers a way of viewing the world which involves more than the search for causal or mechanistic relations. The concept of internal relations is crucial to his dialectic. This approach focuses on relations rather than on objectified categories. Categories, viewed as relations, are not autonomous. They exist in relation to each other and to the totality.

Socio-spatial dialectics examines society and space as internally related. Each expresses the mode of production in which it exists, and they are both contained within the other. Society exists within space and, likewise, space within society. In order to study the socio-spatial dialectic, the mode of production and its relations must be understood as the totality in which these relations exist.

The capitalist mode of production consists of relations which serve the production of commodities and surplus value. In order to study the spatial manifestations and relations of capitalism, one must first understand the socio-economic relations of capitalism. Those relations which perpetuate capitalist accumulation are dialectically related to spatial formation under capitalism. Thus, the socio-economic relations outlined in the section above can serve as a framework for analyzing capitalist spatial formation and the phenomena of urbanization and suburbanization.

CHAPTER III

CRITIQUE OF URBAN APPLICATIONS

The purpose of this chapter is to critically review the radical literature which attempts to apply Marx's theory of socio-economic relations to urbanization and suburbanization. Marxist scholars often use Marx's categories and terminology to analyze such relations rather than an application of Marx's theory. This is manifest in several inconsistencies which can be observed between Marx's writing and the Marxist perspective. It is important to understand these inconsistencies in order to extend Marx's work to an urban/suburban application which is wholly grounded in his theory.

The areas of inconsistency discussed here are the results of several different interpretations of Marx's use of dialectical relations. By applying Marx's theory at an empirical level, authors often focus on observable mechanisms without specifically incorporating Marx's concept of relations.

The three major interpretations discussed are the use of conspiracy theory, objectification of categories, and the application of method rather than theory. They all arise from the failure to apply Marx's theory as one of relations rather than objects and actors, and they all manifest this in somewhat different aspects.

Conspiracy theory appears in much of the radical literature on urban/suburban development. Although it is by no means limited to

Marxist writing, it forms the basis for much of the Marxist works. This approach searches for consciously responsible actors, or categories, which dominate causal relations. In other words, it assumes autonomous categories which act and react with each other, and that the actions of certain categories are more determinant than others. Many works classified here as conspiracy theory do not relate observable mechanisms to Marx's theory of relations under capitalism. They do not offer a basis for understanding the mechanisms as manifestations of the capitalist mode of production but as autonomous incidences. These works are not necessarily incorrect interpretations of historical events, rather they do not extend their interpretation of these events to Marx's theory of relations in the capitalist mode of production. In its most blatant and observable form, many scholars argue that it is not Marxist; however, when it is veiled with Marx's terminology it is often accepted as a Marxist approach, and serves as the foundation for Marxist writing.

Sawers (1975), a radical political economist, offers a classic example of conspiracy theory. He discusses the factors which have affected urban form in the United States, specifically citing large corporations and dominant class ideology. He argues that consumers are victims of corporate conspiracies, which are concerned with profit maximizing rather than social welfare. The suburbs, for example, are the result of corporate conspiracies like that of General Motors (GM), which bought out the streetcar companies in several major American cities and forced the birth of the automobile age. He argues that urban form reflects "bourgeois social relations" rather than consumer preference, and that consumers are not the determinants of urban form. The government also plays an important

part in urban form and structure, according to Sawers, as it is the "handmaiden of the capitalist". Thus, Sawers searches for causal relations and consciously responsible actors to explain urban form.

Likewise, Gordon (1978) argues that suburbanization was brought about through the conscious actions of corporations. He examines the urban history of the United States and "applies the Marxian perspective" to three stages of accumulation: commercial, industrial, and corporate. (ibid. 28) He contends the dispersal of manufacture at the end of the 19th century "began because corporations could no longer control their labor forces in the central cities". (ibid. 50) Thus, cities in their present, dispersed form were shaped by corporations searching for stability. His argument is based on a simplistic concept of accumulation and the actions of individual contradictions of capitalism.

Taebel and Cornehls (1977) similarly argue that the urban transportation system has been a major factor in the determination of urban structure. They examine the effects of urban transportation policy, and stress the political bias of both fiscal and legislative policies toward automobile and highway-oriented urban design, and argue that satisfying the created need for automobiles and highways has caused urban sprawl.

Although some of these works might not be considered Marxist, there are many similarities between them and the works which are classified as Marxist. It is important to understand how conspiracy theory is applied to the analysis of urban form in the simplest manner, in order to identify its use in Marxist writings as the search for conspiracies and mechanistic categories.

Dobb's (1963) work is a good example of the use of conspiracy theory by Marxist scholars. He offers an historical account of the development of capitalism from its earliest roots to the mid-twentieth century. He follows the growth of the dominance of the bourgeoisie over the working class. This commonly accepted view of the historical development of capitalism focuses on the class of actors, rather than on the relations of capitalism. Marx, on the other hand, deals with individuals "only in so far as they are the personifications of economic categories, embodiments of particular class-relations and class interest". He argues that the individual is not "responsible for relations whose creature he socially remains". (Marx, 1967 I, 10) Dobb studies the role of individual bourgeois in capitalist development. In doing so, he stresses objectified categories and offers little or no insight into the relations of capitalism.

Short (1976) discusses the way in which the urban environment is structured in an attempt to understand residential location decisions. He bases much of his conceptual framework on Castells' (1977) work, and views spatial patterns as a product of social structure. He divides social structure into autonomous elements. In his discussion of ideology he argues that "its main function is to suggest to people that their actions spring from their own free will rather than as an adaptation to the economic system". This conscious cooptation, as seen "through the adman", encourages suburbanization, consumption, and the reproduction of the labor force. This approach to the study of suburbanization as a product of individuals acting on one another, remains purely at the level of appearances and misleads the reader to see reproduction and consumption patterns as the results of individual actors, or classes, rather than as inherent relations of capitalism. Short

uses this logic to show how fiscal policies have increased suburbanization, and that suburbanization increases class segregation. Not only is this argument causal in nature, it also fails to understand or explain the relations of capitalism. He simply searches for evidence of the existence of Marxist categories as a proof of the value of a Marxist approach.

Walker (1977, 1978) focuses on the mechanisms apparent in suburbanization, of its being; not on the relations and conditions of its becoming as inherent relations of capitalism. His study of urban reform examines suburbanization as an elitist "solution" containing its own contradictions. His work follows the historical development of the suburbs as urban reform. Conscious actions to bring suburbanization about are implicit in a reform movement. Walker considers suburbanization as an outcome of "intentional actions of the bourgeois urban reform". Such an approach has obvious conspiratorial and mechanistic implications which again make actors, rather than the inherent relations of capitalism, responsible for socio-economic formation.

Conspiracy theory is relatively easy to identify in Marxist writing as it is also found in liberal work. There are, however, more fundamental distinctions between Marx's writings and Marxist work, which arise from the fundamental distinction between the scientific and dialectical frameworks, as outlined in chapter 2. The inconsistencies between Marx's writings and Marxist applications stem directly from the abstraction of Marx's theory from a dialectical framework and application in a traditional framework. These inconsistencies are seen in the use of categories as objects, rather than as sets of relations.

Castells (1977) applies what he calls a Marxist approach to

the urban process by examining urban history, ideology, structure, and politics. He contends that social and economic relations are divisible into categories, of which one is the dominant category in a given society. In capitalism the economy is dominant, and determines the structure of society as well as the urban structure. Castells examines the separate elements of the economy in order to understand the role of each element in urban structure. In his spatial analysis of these elements he simplifies them into objects which are easily observable in modern capitalist cities. He studies the spatial structure of production, consumption, and exchange by studying the spatial arrangement of industry, housing, and traffic patterns respectively. He uses traditional industrial location theories to analyze production which is abstracted and objectified as industry. Housing patterns are used as a surrogate for consumption patterns, studied through social area analysis. He also studies class segregation through housing patterns by reducing reproduction to environmental determinism. Inter-urban traffic flows are used to examine exchange, which, as with housing and industrial location, abstracts categories from their relations to the total socio-economic structure. By studying only limited spatial manifestations of socio-economic relations at the level of appearances, Castells does little more than apply a few Marxist terms to traditional studies of spatial structure. Simply, observable categories like housing patterns say little about the relations of consumption and even less about the relations of consumption and other elements of production.

This objectification of relations appears in various forms in Marxist literature. Spatial fetishism, as discussed in chapter 2, is one form of this objectification. Mateju et al. (1979) study the differences between capitalist and socialist urban form as the products of economic relations. They use factor analysis to study the changes in socio-economic differentiation, family and age structure, and urban structure in Prague from a capitalist city in 1930 to a socialist city in 1970. They conclude that the former is determined by class differentiation, while the latter expresses the 'equality' of socialism. They abstract class and class struggle to a dominant and deterministic level which is dependent on the mode of production. Their approach is deeply entrenched in spatial fetishism, as they argue that "both the subordination and the autonomy of the spatial structure of the city are rooted in socio-economic structure". They have objectified space such that it is created by the mode of production, rather than internally related to the socio-economic structure.

The objectification of class relations is another common theme in Marxist writing. It is seen not only in Mateju et al.'s (1979) article, but also in conspiracy theory work. Classes become groups of people rather than sets of relations, and class consciousness becomes nothing more than interest group politics. This is the basis of much of the previously discussed work which analyzes the role of suburbanization and urban structure in terms of segregation and loss of community (Castells 1977, Sawers 1975, Short 1976, Taebel and Cornehls 1977). O'Connor (1973) uses class in this sense in his

discussion of city-suburb relationships which are, in his view, simply the manifestation of class relations. He analyzes social capital expenditures and social consumption as the suburban exploitation of the city. Classes thus become not only objects, but spatially determined objects. Further, the state, through fiscal policies, intensifies this class conflict by aiding in the suburban exploitation of the city. Such an approach is easily linked to the previous discussion of conspiracy theory.

The third major difference between Marx's writings and a Marxist approach stems from the application of what is considered to be a Marxist methodology, rather than the extension and use of Marx's theory. Marxists apply what they term 'dialectical materialism' in order to understand the historical relations of man. However, most of the Marxist literature uses mechanistic, historical materialism, rather than dialectical materialism. This approach searches for determinant categories in development and formation, rather than examining the relationships which give rise to, and are internally related to, socio-economic formation. This approach is evident in Dobb's (1963) work which is a history of the development of capitalism. Rather than studying the relations of capitalism throughout its development, Dobb simply outlines the economic growth of industrial capitalism as a series of events leading up to the present economic structure. He attempts to link his work to Marx's theory by identifying the existence and growth of particular categories such as the proletariat and the bourgeoisie. The use of Marx's terms and categories is just that, and

by no means presumes an understanding of his theory or dialectics. The methodology which Marxist use is often inconsistent with Marx's theory, It is an abstraction of categories and relations which can be applied in a traditional analytical framework, thus losing their dialectical nature.

Walker (1977, 1978) attempts to overcome the problems outlined above by introducing the dialectic to his work. However, he is unable to apply his abstract discussion of dialectics. His work contains a study of the growth and development of 19th and 20th century American cities. There appears little connection between his abstract formulations and his substantive application. The former consists of an overview of dialectical materialism and Marx's socio-economic relations. The application, however, is a mechanistic historical account of urban growth, and the suburban solution to accumulation crises. What Walker fails to do is to extend Marx's theory to an application of urban/suburban development and, therefore, he is unable to analyze this development within that theoretical framework. He does not, and in fact cannot, draw conclusions from his substantive material which exemplify the dialectical relations of Marx's theory. The data are used to examine the mechanisms of capitalism in the 19th and 20th centuries, rather than as an aid to understanding the socio-economic relations inherent in capitalism.

Harvey (1973, 1975a, 1975b) offers some insight into the application of Marx's theory to urbanization. He argues that "urbanism in capitalist societies can be analyzed in terms of the

creation, appropriation and circulation of surplus value". (1973, 231)

He also argues that urbanism is not merely a product of economic forces. Urbanism is seen as providing opportunities necessary to industrial capitalism, and it is the processes of industrial capitalism, in the final instance, which control the dynamics of urbanism. This is not, as some have interpreted it, mutual causality. What is meant is that urbanism is internally related to industrial capitalism, and the two exist in an innerdependence with each other. Harvey shows an understanding of dialectical relations in his applications of Marx's socio-economic theory to spatial phenomena. He uses accumulation to analyze the relations of spatial structure. (1975a) Marx's theory of accumulation provides Harvey with a basis for studying the expansion of market areas, or exchange areas, through foreign markets. He argues that "accumulation is the engine which powers growth under" capitalism, and that barriers to accumulation must be overcome for continued production and accumulation. The spatial barriers to circulation and the realization of surplus-value create conditions of crises, over-production. Thus, the "annihilation of space by time" is necessary for expanded production and the realization of surplus-value. He applies this to foreign markets as the expansion of the market area, and discusses the need to overcome barriers to circulation in terms of distance and transportation.

Harvey studies spatial relations as they relate to other capitalist relations, and does not objectify these relations into determinant categories. He focuses on their internal relations as they are related to capitalism as a totality.

The outstanding problem with Marxist urban spatial research is the inability of many Marxist scholars to apply Marx's concept of relations, and not focus only on objectified categories. In order to apply Marx's work to issues such as urbanization and suburbanization, one must examine the relations of these phenomena, rather than abstract autonomous categories and attempt to prove their existence. Marx did indeed speak of categories, however, these are not strictly bounded objects, they are sets of relations. The focus of work in Marxian analysis should be on the relations, and the production and reproduction of capitalist relations. The proof of the existence of objectified categories does not extend urban spatial research to an analysis based on Marx's theory of relations.

CHAPTER IV

URBANIZATION AND SUBURBANIZATION

This chapter directly addresses the phenomena of urbanization and suburbanization as spatial manifestations of the socio-economic relations of the capitalist mode of production. Marx's theory of the socio-economic relations of capitalism, and his analysis of the rise and growth of urbanism under capitalism, can be extended in an application to the growth of suburbanization. The purpose of this chapter is to attempt to understand what role urbanization and, subsequently, suburbanization have played in the development and reproduction of capitalism. This can be understood by examining the inherent relations of capitalism and the relations of urbanization and suburbanization which are both supportive of, and contradictory to them. In this way, one can understand the ever-changing nature of capitalism and of its spatial manifestations.

The important issue addressed here lies in the relations of spatial formation and the capitalist mode of production, not in the mechanisms which realize spatial form. Although much attention has been given to the mechanisms of capitalism in the changing spatial structure of urbanization and suburbanization, as discussed in chapter 3 above, little attention has been given to the relations of capitalism and spatial formation at a more theoretical level.

It seems that Marxist research has tended to focus on specific, empirical examples applicable to Marx's theory, in an attempt to explain individual phenomena or trends, rather than constructing a theory which can be applied at a more general level. By abstracting these phenomena and examining them at the level of appearances, Marxists constrain their ability to construct a theory which can be applied beyond the fixed, historical framework from which it is derived. Although the mechanisms and observable form of capitalist formation may change over time, the inherent relations of the capitalist mode of production do not. Therefore, in order to explain such phenomena as urbanization and suburbanization more fully, they must be viewed through the relations of capitalism, not through a set of observable mechanisms. These mechanisms themselves offer little or no basis for theory, as they are only observable workings of capitalist urban structure and do not serve to explain the inherent relations of capitalism which create the need for such mechanisms.

In order to understand the relations of suburbanization as supportive of, and contradictory to capitalism, one must first examine urbanization as it is a precondition of suburban formation. Therefore, Marx's writings on urbanism under the capitalist mode of production will be discussed in order to understand the socio-spatial relations of capitalist urbanization. These relations will then be examined with respect to suburbanization as a manifestation of the capitalist mode of production. Finally, a more substantive discussion of the physical growth of North American cities will serve as an example of the suburban, spatial manifestation of capitalist relations.

4.1 Marx's Town and Country

The origin of capitalist urbanization lies in the separation of town and country. This separation can be viewed in various ways, as the division of labor, as the separation of capital and landed property, as the division of material and mental labor, and as the separation of use and exchange value.

The rise of capitalism

presupposes an historic process which divorces the objective conditions of labor from the worker and makes them independent of him, it is at the same time the effect of capital and of its process, once arisen, to conquer all of production and to develop and complete the divorce between labor and the objective conditions of labor, everywhere. (Marx, 1973, 511-512)

Such is the origin of the antagonism between town and country. The former consists of propertyless workers who exchange their labor for wages. The latter involves the domination of nature by laborers who primarily produce use value rather than exchange value.

The capitalist mode of production presupposes the division of labor. This is realized through wage-labor and the concentration of labor, which enables increased production of commodities through the division of labor. The antagonism between town and country arose from the increase in the division of labor and its urban concentration. The products of labor were transformed into commodities, as exchange value became the primary condition of labor. Occupations which previously produced use value for the rural dweller now produced only exchange value in the form of wages. For example, Marx (ibid, 510) explains that:

the merchant induces a number of weavers and spinners, who until then wove and spun as a rural, secondary occupation, to work for him, making their secondary occupation into their chief occupation; but then has them in his power and has brought them under his command as wage laborers. To draw them away from their home towns and to concentrate them in a place of work is a further step. In this simple process it is clear that the capitalist has prepared neither the raw material, nor the instrument, nor the means of subsistence for the weaver and spinner. All that he has done is to restrict them little by little to one kind of work in which they become dependent on selling, on the *buyer*, the *merchant*, and ultimately produce only *for* and *through* him. He bought their labor originally only by buying their product; as soon as they restrict themselves to the production of this exchange value and thus must directly produce *exchange value*, must exchange their labor entirely for money in order to survive, then they come under his command, and at the end even the illusion that they sold him products disappears.

Here it is seen that the division of labor and the rise of exchange value, or wage-labor, are not only inherent relations of capitalism, but serve as a basis for urban growth through the concentration of wage-labor. This concentration supports the accumulation of capital in urban areas which

rapidly forms an internal market for itself by destroying all rural secondary occupation,...in short, brings the commodities previously created as direct use values into the form of exchange values, a process which comes about by itself through the separation of the workers from land and soil and from property (even in the form of serf property) in the conditions of production. (ibid, 512)

With the original growth of towns came an influx of free wage-laborers who brought with them a single commodity; labor.

The flight of serfs to the cities is one of the *historical* conditions and presuppositions of urbanism, it is not a *condition*, not a moment of the reality of developed cities, but belongs to their *past* presuppositions of their becoming which are suspended in their being. (ibid, 459)

The rise of urbanism is a necessary presupposition of industrial capitalism. It is the realization of those relations contained in the capitalist mode of production. The historical foundation of the industrial mode of production is the concentration of wage-laborers who must sell their labor, as the conditions of labor confront them as capital, or alien property. The division of labor, inherent in capitalism, arises not only from the separation of workers from the conditions of production, but also through the material element of accumulation, in which the

division of labor requires the concentration of means of subsistence and means of labor at particular points, whereas formerly these were scattered and dispersed as long as the workers in individual trades...themselves carried out all the manifold and consecutive operations required for the production of one or more products.
(Marx, 1971, 271)

The separation and antagonism between town and country grew out of the division of labor and the alienation of the instruments of production. The town is "the concentration of the population, of the instruments of production, of capital, of pleasures, of needs, while the country demonstrates just the opposite fact, isolation and separation". (Marx, 1970, 69) The growth of urbanism has simultaneously been an extension and intensification of production and accumulation. The rise of urbanism and division of labor spawned the rise of manufacturing which is dependent on the concentration of population and the accumulation of the instruments of production, capital.

With the growth of manufacture came extended production whose commodities were sold not only in the home market but also in other

towns, or even other countries. "The expansion of trade and manufacture accelerated the accumulation of movable capital" (ibid, 75) This accumulation, or extended reproduction perpetuated the rise of manufacturing to advance industrialization.

Big industry universalized competition..., established means of communication and the modern world market, subordinated trade to itself, transformed capital into industrial capital, and thus produced the rapid circulation... and the centralization of capital... In the place of naturally grown towns it created the modern, large industrial cities which have sprung up overnight... It completed the victory of the commercial town over the countryside. (ibid, 77-78)

4.2 Suburbanization

Marx's theory of the rise of urbanism and its socio-economic relations can be extended to help explain suburban growth as an expression of capitalist relations. Suburbanization can be viewed as a modern example of Marx's theory of accumulation under capitalism. Therefore, the process of accumulation as it relates to the socio-spatial relations of suburbanization can be discussed within the theoretical framework offered in Marx's writings on urbanism.

It is inherent in capitalist production to produce without regard to the limits of the market. "The historical mission of the bourgeoisie", according to Marx, is "accumulation for accumulation's sake, production for production's sake". (Marx, 1967 I, 595). This essential driving force of capitalist production contains one of the dominant forms of contradiction in capitalism.

Overproduction occurs when the value of a commodity is not

realized; in other words, when the commodity enters the market but is not exchanged for value in the form of money. When its value is not realized, accumulation does not take place. When there is a separation or divergence between production and consumption the necessary preconditions for crises arise. Therefore, the circulation process must attempt to overcome all barriers which enable this separation of the processes of production and consumption. Further, the sphere of exchange must be expanded to find markets for the increasing production.

The nature of capitalism posits accumulation, which is a spiral increase of the means of production. As the means of production increase so also do the products, creating greater capital, and so forth. Capital also becomes more productive through this expansion. As production increases, the market for the products must also expand. However, when this is not the case, crises arise. Overproduction is simply the inability of the market to "keep in step with the expansion of production". (Marx, 1968, 524)

The ability of the market to expand is dependent on geographical limitation. The process of circulation is limited by the ability to overcome physical barriers. These barriers define market areas and spheres of exchange; thus, circulation is intrinsically spatial. As accumulation depends on the realization of surplus value through circulation and exchange, the spatial manifestations of circulation and the ability to overcome barriers in time and space are essential elements of the capitalist mode of production.

Barriers to circulation, both in time and space, act to devalue commodities. Unlike labor time, which is value-positing, circulation time "determines value only in so far as it appears as a *natural barrier* to the realization of labor time". (Marx, 1973, 539) Circulation time, the time necessary for the realization of value, requires additional necessary labor time, or a decrease in surplus labor time, and thus labor value; and as such, is a barrier to the self-realization of capital.

Thus, while capital must on one side strive to tear down every spatial barrier to intercourse, i.e. to exchange, and conquer the whole earth for its market, it strives on the other side to annihilate this space with time, i.e. to reduce to a minimum the time spent in motion from one place to another. The more developed the capital, therefore, the more extensive the market over which it circulates, which forms the spatial orbit of its circulation, the more does it strive simultaneously for an even greater extension of the market and for greater annihilation of space by time. (ibid)

Herein lie not only the origins of suburbanization, but also the contradictions contained in it.

A precondition of production based on capital is...*the production of a constantly widening sphere of circulation*, whether the sphere itself is directly expanded or whether *more points within it are created as points of production*. (ibid, 407)

This increased production necessitates the expansion of the market, whether in actual space or in the intensity of consumption within the present market area. Suburbanization has enabled the extension of the market into the peripheral regions of the city, and the intensification of consumption through changing 'preference' structures. This, however, should not be considered either mechanistic or deterministic;

rather, it should be examined as a response to growth in the sphere of production. This response was not predetermined, other processes or spatial formations might just as well have offered the necessary market expansions. Suburbanization does, however, offer a good example of both a qualitative and quantitative extension of the sphere of exchange.

It carries with it, however, its own contradictions to the capitalist process of accumulation and circulation. Suburbanization not only disperses surplus-producing labor in low-density residential areas, it also creates new barriers to circulation. As points of production and consumption diverge, so too do the processes themselves, which gives rise to the external conditions of crises. As production and consumption are separated in time and space, the circulation, and thus the realization of capital are separated from the production process. This separation gives rise to uncertainties and to the devaluation of capital.

A response to this problem of the separation of the process of production from the process of consumption is seen in the increasing dependence on credit. "The entire *credit system*, and the over-trading, over-speculating etc. connected with it, rests on the necessity of expanding and leaping over the barrier to circulation and the sphere of exchange" (*ibid*, 416). Credit serves as an artificial abbreviation of circulation time and aids in creating a continuous and ever more extensive market. However, this artificial abbreviation, which is so commonly observed in the suburban society, contains its own contradictions as it only serves present circulation at the expense of future

circulation and the ability for future consumption, and thus future expansion of the market area.

The development of the means of transportation and communication are, unlike credit, direct moments of production. Credit is an economic relation of circulation. It suspends the chance element by capital itself in the circulation process. Transportation and communication, on the other hand, are contained in the circulation process of production, they are the physical conditions of exchange and belong to the costs of circulation. (ibid. 533) Increased costs of transportation necessitate an increased in necessary labor time and thus a decrease in surplus labor time and, therefore, surplus labor value. Surplus value is greatest when circulation costs are equal to zero. Therefore, with the physical expansion of the market area through suburbanization, surplus value is decreased by the increase in transportation, or circulation costs. There becomes an increasing need for the annihilation of space by time with the continued physical expansion of the market as expressed by the suburbanization process.

Looking specifically at the suburban expansion of North American cities, one can see a general trend of the physical extension of the market in terms of urban sprawl, and attempts to overcome the new distance barriers with extensive transport and communication networks. The urban/suburban landscape is one of a heavily built environment made up of extensive fixed capital in the form of highways, transit lines, and commercial and residential structures of varying forms and densities. This built environment is a product of past spatial formation

and serves as a precondition to future formation.

As the socio-economic relations of capitalism contain both supportive and contradictory aspects, so also do the physical manifestations of capitalist production. For example, as the growth of low-density suburban expansion and transport networks served as new areas of consumption for capitalist production, they are not only inefficient uses of capital, but also create barriers to future expansion. As such, growth is constrained by the fixed immovable nature of the built environment. For instance, as a given transport network may adequately serve the circulation of commodities at a given time, it may serve as a barrier to the extension of the sphere of exchange at a later time, thus constraining necessary future accumulation. The reproduction of capitalist relations is constrained by the existing relations both in terms of socio-economic relations and the spatial manifestations of those relations. The contradictions which arise from the spatial constraints in the form of fixed capital give rise to the conditions of crises, as discussed above. Thus, as the physical growth of suburbanization served to extend the sphere and intensity of exchange in 20th century cities, it now contains contradictions and barriers which must be overcome for future accumulation and crisis aversion.

As previously discussed, accumulation, the spiral increase in the means of production and capital, in turn increases the productivity of capital. This is evidenced in the growth of productivity in 20th century North American cities. This growth necessitated a parallel growth in consumption. One manifestation of this can be observed in the rapid peripheral expansion and suburbanization of these cities. Increased

private consumption and extensive investment in fixed capital were important aspects of this growth. Suburbanization is characterized by low-density development and private consumption of housing, transportation, and open space, often in the form of single-family housing separated by private yards, and one or two car households. This low-density growth encouraged private consumption as private ownership enabled households to overcome distance barriers to facilities unable to serve such low-density development, such as public transit. The annihilation of space by time was accomplished through the extensive network of highways and roads which allowed easy access from the center of the city to the periphery by private auto. Manufacturing also moved to the suburbs, which reduced time and distance between spheres of production and consumption.

The physical structure which resulted from this peripheral expansion consists of fixed capital in the form of transportation networks, and housing and commercial structures. This immovable capital contains, in its being, the contradictions of these relations by constraining future accumulation. The physical structure of one historical moment in capitalist accumulation contains the conditions and mechanisms of that moment. However, as these conditions change over time, the fixed nature of this structure does not. Therefore, the physical manifestations of capitalist accumulation contain the historical conditions of its expansion, as well as physical constraints to future expansion.

4.3 Cycles and the Built Environment

The process of suburbanization in North American cities is manifest in the changing built environment. It is identifiable in the

patterns and growth of residential and nonresidential construction, as well as transportation structures. This physical manifestation of suburbanization is internally related to the economic processes of production, consumption, and circulation; and serves as an image of the relations of these processes over time.

The search for the causes and mechanisms responsible for suburbanization is a common approach in the analysis of suburbanization. However, it is also important to examine suburbanization as an expression of the socio-economic relations inherent in capitalism. It can be seen that the physical structure of urbanization and suburbanization reflects the changing relations of capitalism and can be examined as an integral part of capital accumulation.

Suburbanization and suburban expansion in the United States reflect the changes in socio-economic relations throughout history. Periods of expanded production and overproduction parallel periods of increased suburban construction and decreased construction, respectively. Although this can be viewed causally, it can also be considered relationally, as outlined above. If suburbanization is regarded as internally related to the economy as a whole, it holds an identity with the whole and manifests the relations and changes contained in the whole.

Economic cycles reflect periods of accumulation and of overproduction. They occur because capitalism and capital accumulation are not in constant motion. If capital is not realized, if barriers to exchange exist, overproduction is experienced. As the market expands and as barriers to circulation are overcome, as discussed previously, capital is again

realized and is manifest in a period of capital growth.

The logic of economic cycles is internally related to the logic of crises. Cycles are the observable manifestations of the inherent contradictions in the capitalist mode of production. The logic of crises presented here is based on overproduction and the inability to realize capital in the market.

There exist several specific theories of crises in Marxist literature which deal with the mechanisms of crisis. A commonly accepted theory is the falling-rate-of-profit theory of crisis. Van Parijs (1980) defines the falling-rate-of-profit theory of crisis as

The theory which attempts to predict and explain the occurrence of economic crisis under capitalism with help of the following three propositions:

- (i) The capitalist mode of production is such that organic composition of capital (OCK) necessarily rises.
- (ii) A rise in the OCK necessarily leads to a fall in the (general) rate of profit.
- (iii) A fall in the general rate of profit necessarily leads to crises.

From the conjunction of these three propositions it obviously follows that

- (iv) The capitalist mode of production is such that crises necessarily occur. (ibid. 1)

He defines crisis as a crisis of overproduction, "a situation in which production, employment and capacity utilization fall sharply as a result of commodities being unable to find buyers at the going market." (ibid. 7-8).

Itah (1980) also addresses theories of crisis. He argues that Marxist attempts to deal with crisis-theory "can be divided into two major types, according to the way they view the cause of crisis. One is based on the excess commodity theory and the other on the excess capital theory of

crisis." (ibid. 119-120)

These different approaches can be reconciled through a dialectical understanding of overproduction. The falling-rate-of-profit theory argues that crises of overproduction are realized when "the amount of surplus-value produced becomes insufficient to purchase all the commodities produced which are not consumed." (Van Parijs, 8) The general argument advanced in this thesis is that crises arise when capital is not realized, specifically when the market does not keep pace with the expansion of production due to barriers to circulation. Examples of barriers to circulation are found in transportation and communication, the circulation process of production. As evidenced in United States history, overproduction is realized when the circulation process does not enable the realization of value. These crises of overproduction are manifest in cyclical downturns in the economy as a whole.

As the precondition of capital production lies in the expanding sphere of exchange, the barriers to this expansion and the annihilation of these barriers are expressed cyclically. Cycles, whether specifically defined by time or considered as a general concept, exemplify the constant need for capitalism to expand the sphere of exchange.

One source of data which exemplify socio-economic relations is the work done on business and building cycles. Economists have long been interested in business cycles. (c.f. Kuznets, 1961; Gottlieb, 1964; and Schumpeter, 1939) Although there is much debate on the nature and causes of these cycles, the data used in studies of business cycles offer substantive insights into the parallel changes in various areas of production and consumption which can be examined in light of the internal relations of

suburban expansion and capital accumulation.

Economic cycles reflect periods of accumulation and of overproduction. These cycles can be viewed as expressive of the capitalist mission: production for production's sake. Cycles are observable manifestations of the capitalist mode of production's tendency to overproduce. They are internally related to the logic of crises and are an outward expression of overproduction as production is taken to the limits of the market, the conditions for crisis are created through overproduction. To avoid crises, the market must be expanded, as previously discussed. The built environment is a manifestation of these relations which are expressed in building cycles.

Looking specifically at building cycles, it is seen that there is a distinct relationship between the troughs and peaks of the building cycles and of the economy as a whole. Hansen (1941, 22-23) found that "the building cycle on the average is almost exactly twice as long as the major business cycle", and concludes that

it is therefore not true, as has sometimes been suggested, that the building cycle has no relation whatever to the major business cycle. On the contrary, America experience indicates that with a high degree of regularity every other major business boom coincides roughly with a boom in building construction, while the succeeding major cycle recovery is forced to buck up against a building slump. (ibid.)

One might explain the building cycle as caused by the business cycle; or, one can examine the building cycle as an internally related part of the economy and analyze its relations as manifest in the built environment. The latter is the approach outlined in this thesis.

Isard (1942) believes that the transport-building cycle is an

important cycle which has been too often neglected. He argues that

the underlying causal force behind the cyclical movements, which, broadly, average seventeen-to-eighteen years, is the irregular emergence of transport, innovation and the jerky development of the transport network. (ibid. 149)

He contends that "transport and building construction ... represent in a rough manner the beginning and end of the causal relation, respectively."

(ibid.) It can be seen from his findings, presented below, that the timing of the cycles which make up the transport-building cycle are closely related. The data exemplify the relationship between the transport-building sector and the economy as a whole through the parallel cycles observable in both. This relationship is an example of the manifestation of the economy as a whole in specific sectors of the economy.

TABLE I.—TIMING OF TRANSPORT-BUILDING CYCLES IN INDIVIDUAL SERIES

Series	Trough I	Trough II	Trough III	Trough IV	Trough V	Trough VI	Trough VII
Building	1830 (or earlier)	1843	1864	1878	1900	1918	1934
Transport development	1825 (approx.)	1843	1861	1875	1897	1918	1933
Immigration .....	....	1844	1862	1878	1898	1918	1933
Population growth .....	....	....	....	1875 (or earlier)	1898	1916	1933 (or later)
Anthracite production	1825 (approx.)	1840	1860	1878	1897	none	1933
Pig iron production .....	....	....	1861	1876	1894	none	1933
Wholesale prices	1830	1843	1861	1879	1897	1914	1933

Isard's central theses are that there were four major transport innovations in the period 1825-1933: the canal, the railroad, the street and electric railway, and the automobile; and that their cycles of development are causally related to building cycles. However, examined in light of the theory outlined in this thesis, Isard's data offer a substantive example of the socio-spatial dialectic. During times of economic expansion there is also an increase in transportation development. This expansion of the transport network enables the annihilation of space by time, or increased circulation. This in turn enables the expansion of the market as manifest both economically and spatially in increased construction.

Throughout the United States' urban history there have been cycles of economic growth. In almost every instance relations between the various sectors of the economy have been clearly indicated. As business cycles approach a peak or trough, building and other sectors reflect this trend in their cycles. Some (c.f. Isard, 1942) have argued that one sector leads this trend and is the causal factor in economic cycles. However, it can also be argued that certain sectors simply reflect economic trends earlier or more readily than others. While sales of consumer goods, for example, may increase overnight, construction starts have more time constraints and cannot. Hansen (1941) acknowledges this fact and notes its relation with the economy as a whole. He states that

Since it takes longer to overcome the temporary saturation in building construction—indicated by the average length of downswing in the building level, eight to nine years—it is not difficult to see that recovery of general investment activity is made more difficult so long as building construction, which has always been such an enormously important industry in American life, is declining or running along on a very low level. (ibid. 23)

Kuznets' (1961) study of the American economy offers data which support the contention that the economy is a regular series of peaks and troughs. It also provides substantive evidence that these cycles occur not only in the economy as a whole, but in smaller sectors of the economy as well. These sectors, in turn, reflect the cycles of the whole. For example, troughs in the cycles of construction, production of durables, and inventories occur within a year of one another and of capital formation as a whole, comprised in part by these three sectors. (ibid. 490) Thus, it can be seen that economic growth and decline as a whole is reflected throughout the economy in smaller sectors.

The necessary market expansion, discussed earlier in this chapter, is expressed in urban/suburban spatial structure. Barriers to market expansion and the sphere of exchange must be overcome through expanded circulation in the form of transportation and communication networks. The ability to overcome barriers to circulation and exchange, and construction itself, is constrained by the ability to overcome these barriers and expand the market.

Building cycles and the built environment reflect economic cycles, as discussed above. These cycles, observable in the United States and other industrialized countries (Gottlieb, 1976), express both the spiral nature of accumulation in their ever increasing formation and the inherent contradiction of capitalist accumulation, overproduction. Each peak expresses greater production and accumulation which each trough is a manifestation of the market's inability to keep in step with the increased production. So while economic cycles can be examined causally by traditional economists, they also offer an expression of capitalist relations and their

inherent contradictions.

Harvey (1978) has examined the urban built environment from a similar perspective. His interpretation of the urban process is based on two themes: accumulation and class struggle. Although his emphasis is on the former, he argues that the two are "different sides of the same coin" (ibid. 101). He discusses three different circuits of capital. The production circuit and the built environment are the primary and secondary circuits respectively. He argues that when overaccumulation occurs in the primary circuit it is manifest in the secondary circuit through a switch in capital flow to that circuit. Although his major argument lies in the relations between circuits, he bases his work on overaccumulation as the source of crises and their observable manifestations, cycles, as is the basis of this thesis.

The essential issue here is not one of causality or the mechanisms which give rise to cycles although without them the cycles would not necessarily continue. On the contrary, it is one of perspective, or focus of study which shifts from specific, autonomous categories of little general significance to a more general view which examines urban formation as a manifestation of socio-economic relations as a whole. Social scientists have long been preoccupied by the specific, partitioning life into minute areas of study. This approach, this donning of side blinders, enables one to see the individual phenomenon clearly but not the trend of which it is an integral part. For example, in Walker's (1977) work, previously discussed, he examines the socio-economic mechanisms which brought about economic cycles. This dwelling on the specific beclouds the essential and most important issue of cycles, their inherent

relationship with the capitalist mode of production.

This perspective is essential to understanding the urban/suburban trends throughout history. There occurred a centralization trend that paralleled the initial rise of urbanization. Recently, we have witnessed a trend toward decentralization. The mechanisms of these trends can help explain how these trends occur, but an understanding of the socio-economic relations of capitalism can help explain why they happen. It is simply not enough to study the present physical structure of urban form, or the mechanisms at work in urban formation. One must understand the historical relations of capitalism and capitalist accumulation in order to explain the socio-spatial relations of capitalist urban formation.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this thesis has been to apply Marx's theory of socio-economic relations to suburbanization by extending his concepts of capitalist production and accumulation to the relations of suburban formation. With an understanding of spatial formation as internally related to the process of capitalist accumulation, other spatial manifestations of capitalist production can be examined and understood at a more theoretical level than can be achieved through simple analysis of the mechanisms of formation. The mechanisms become important as examples or manifestations of capitalist relations, rather than as simple causal factors in spatial formation.

Marx's concept of the dialectic forms the basis for his theory of socio-economic relations. Chapter 2 stresses the importance of dialectics and the understanding of internal relations as a theoretical framework for socio-spatial analysis. Marx's theory of socio-economic relations in the capitalist mode of production is summarized. This theory serves as the foundation for analyzing spatial formation, which is dialectically related to the mode of production as a whole and its relations.

Literature on the application of Marx's theory of socio-economic relations to urbanization and suburbanization is reviewed in chapter 3.

Marxist urban research is often inconsistent with Marx's writings, as it lacks a theoretical basis for research. Weaknesses in these works are discussed to illustrate the need to develop an urban, spatial theory based on Marx's work.

In chapter 4, Marx's application of dialectics to urbanism is summarized in his discussion of town and country, and the rise of industrial urbanism. The spatial implications of production, consumption, and circulation are then extended to suburbanization to explain its relations to the capitalist mode of production; and specific conclusions about suburban spatial formation are drawn.

Marx's concept of relations forms a basis for theory in socio-spatial research. The importance of the inherent relations of capitalism has been stressed over the simple mechanistic or causal relations more commonly addressed in geography. This approach offers a larger framework in which these latter relations can be placed, and relations can be more fully explained at both the observable and more abstract levels of research. When the capitalist mode of production is understood as a whole, one can better understand and explain observable phenomena. By singling out specific phenomena without regard for the larger framework in which they are internally related, little can be explained beyond the level of appearances, as is often observable in both the traditional and structural approaches.

Although mechanistic relations do not offer a basis for theory, they do offer a good example of how the socio-economic relations of capitalism manifest themselves in observable phenomena. Even though

they are not direct mirror images of these relations, they can be examined in relation to them. There are several areas of possible application of the theory outlined in chapter 4. These topics can be examined in this theoretical framework, which helps to explain not only the mechanisms of the phenomena, but also their relation to the mode of production as a whole. Three such areas of research are briefly outlined below.

First, transportation policies in the United States lend themselves very easily to this analytical framework. The growth of transport networks in the United States has served the expansion of the sphere of exchange both within the country and abroad since its earliest development. As the economy grew, transportation enabled the annihilation of space by time and offered a precondition for specialization, agglomeration, and eventually the necessary conditions for modern suburbanization. As a physical condition of the circulation process, transportation is a necessary factor in the accumulation process. Transportation policies, like suburbanization, reflect the relations of capitalism and are manifestations of the relations and contradictions found in the capitalist mode of production. In periods of over-accumulation it is necessary to expand the sphere of exchange while, at the same time, annihilating space by time. Thus, transportation becomes an even more important factor during these periods and this can be evidenced in policy. Therefore, transportation policies can be examined as manifestations of the relations of capitalism, and their supportive and contradictory aspects observed in their outcomes.

Transportation policies are interesting reflections of the relations within a particular period because they are constrained by previous policies; but, unlike the built transportation network, they are more flexible and more expressive of the needs of that period. The policies reflect times of crises and rapid production and accumulation through shifts in emphasis and priority. Thus, they can be examined as manifestations of the socio-economic relations and historical moments of crisis aversion.

Second, comparative studies of urban/suburban formation in different countries can offer examples of how the expansion of the sphere of exchange manifests itself under different spatial, economic and physical conditions. Research of this type could offer a good example of how urban form differs under different spatial constraints. However, given the theoretical framework outlined in chapter 4, one would expect to observe spatial responses to capitalist accumulation and over-accumulation in capitalist cities which, although different in form, contain the relations of, and manifestations of capitalist relations. Such a study would clearly exemplify that although suburbanization is the spatial form of urban North America, other spatial forms might also serve to expand markets or spheres of exchange, and that the mechanisms, although different in form, serve to reproduce the same capitalist relations regardless of the political system from which they arise. For example, in countries which have physical and economic barriers to peripheral expansion in the form of suburbanization, other forms such as new towns might arise. Further, it is interesting to study spatial

growth under different socio-political systems by comparing the similarities and differences not only in spatial form but also in the response to changes in the economic conditions.

Finally, the theory can be applied to an area similar to suburbanization but occurring at a geographically larger scale, the United States sunbelt phenomenon. The expansion of the market area through extensive growth in the historically less developed regions of the south and southwest serves a similar function to that of suburbanization. With this growth comes an expansion of production and consumption in both intensity and type. New areas of production are being introduced in these regions, as well as extended production of previously produced commodities. This growth spurs capital investment in the built environment in the form of roads, housing, and commercial and manufacturing structures. Thus, it creates the need for increased investment and consumption.

In conclusion, Marxist research has generally lacked the theoretical base necessary for explanation. Future research should attempt to firmly plant analysis in the theoretical framework outlined in Marx's writings. With a better understanding of his theory, geographers can examine spatial phenomena in relation to the historical formation of the capitalist mode of production as a whole. This offers a broader understanding of the relations of formation and the constraints to formation contained in the built environment.

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